

## SUBJECT INDEX

- AA, *see* Amino acids
- ABCA1 gene  
 expression of leukocyte, associated with fasting glucose concentration in normoglycemic men, 17-21  
 serum HDL-C or apo A-1 levels associated with polymorphism of, in Japanese school-age children, 182-186
- Abdominal adipose tissue (AT)  
 exercise effects on, *see* Abdominal adipose tissue, exercise effects on  
 in lipodystrophic HIV-infected subjects, 1567  
 and metabolic risk in non-obese premenopausal women, 1066-1071  
 in obese NIDDM subjects, bezafibrate effects on, 408
- Abdominal adipose tissue (AT), exercise effects on  
 on body composition, MS and, in PM women on or not on ERT, 1192-1196  
 in older hypertensive subjects, 399
- Abdominal aorta of obese children, preclinical changes in, 1243-1246
- Acanthosis nigricans in PCOS, 366
- ACAT (acyl-coenzyme A:cholesterol acyltransferase), role of cholesterol absorption and activity of hepatic, in lipemic response to HF/HC diet, 817-822
- ACE, *see* Angiotensin-converting enzyme inhibitors
- Acetyl-coenzyme A (CoA), platelet, ATPCL role in metabolism and function of, in DM, 66-72
- Acetyl-coenzyme A (CoA) carboxylase mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- $\alpha_1$  (alpha<sub>1</sub>)-Acid glycoprotein (AGP) in inflammation of chronic disease, 901, 902
- Acid phosphatase locus 1 (ACP1) polymorphism, interaction between adenosine deaminase and, in NIDDM, 995-1001
- Acidemia, late-onset propionic, fatal outcome and, 809-810
- Acipimox, effects of, on plasma NEFAs during exercise at cold temperature, 1131-1135
- ACP1 (acid phosphatase locus 1) polymorphism, interaction between adenosine deaminase and, in NIDDM, 995-1001
- ACT ( $\alpha_1$ -antichymotrypsin) in inflammation of chronic disease, 901, 902
- ACTH, *see* Adrenocorticotropin hormone
- Activated CD4<sup>+</sup> (and CD8<sup>+</sup>) T lymphocytes, emergence of growth factor receptors in, 117-122
- Acute effects  
 of nicotine on serum glucose, insulin, GH, and cortisol, 578-582  
 of wine drinking, *see* Acute effects of wine drinking
- Acute effects of wine drinking  
 absence of red wine drinking, on vascular reactivity, 1081-1086  
 of red and white wine drinking on circulating inflammation-sensitive molecules in men with CAD, 318-323
- Acute insulin-induced hypoglycemia, effects of normoglycemic hyperinsulinemia and, on glucose retinal uptake and ocular metabolism, 1274-1283
- Acute regulatory protein mRNA (messenger ribonucleic acid), low temperature blocking stimulatory effects of hCG on testosterone production but not on cAMP production in tumor cells, 955-958
- Acute spinal cord injury (SCI), circulating leptin as marker of fat mass in, 989-994
- Acyl-coenzyme A:cholesterol acyltransferase (ACAT), role of cholesterol absorption and activity of hepatic, in lipemic response to HF/HC diet, 817-822
- ADA (adenosine deaminase), interaction between ACP1 polymorphism and, in NIDDM, 995-1001
- Adaptability of AT to fasting, pinealectomy effects on, 500-506
- Adaptive thermogenesis, resistance to obesity and, 1417-1423
- Adenosine deaminase (ADA), ACP1 polymorphism interaction with, in NIDDM, 995-1001
- Adenosine monophosphate (AMP)  
 HF diet effects on protein kinase activated by, 914  
*see also* cAMP
- Adenosine triphosphate-citrate lyase (ATPCL), role of, in platelet acetyl-CoA metabolism and function in DM, 66-72
- Adenosine triphosphate-citrate lyase (ATPCL) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- Adhesion molecules, *see* Circulating cell adhesion molecules; Intercellular adhesion molecule-1; Vascular cell adhesion molecule
- Adipocyte(s)  
 hypertension with IR and GLUT<sub>4</sub> of, 382-387  
 restricted diet effects on, 30  
*see also* Adipocytokines; Preadipocytes; Resistin
- Adipocyte precursor cells, *see* Preadipocytes
- Adipocyte-secreted factor, *see* Resistin
- Adipocytokines, serum, effects of moderate weight loss and orlistat or sibutramine on waist circumference and, in obese women, 430-434
- Adipogenic properties of FPFS-410, 1532-1537
- Adiponectin  
 CRP and, *see* Adiponectin, CRP and  
 ethnic differences in levels of, 1-3  
 G276T polymorphism of, in Japanese NIDDM subjects with incipient nephropathy, 1223-1226  
 NEFAs regulating, 790-793  
 in obesity, *see* Adiponectin in obesity  
 plasma, *see* Plasma adiponectin  
 Pro12Ala PPAR $\gamma$ 2 polymorphism associated with concentrations of, in young Japanese men, 1548-1551  
 serum, *see* Serum adiponectin
- Adiponectin, CRP and  
 IR and, in postpubertal Asian Indian adolescents, 1336-1341  
 in obesity, NIDDM, and monodrug therapy, 1454-1461
- Adiponectin, effects of moderate weight loss by obese women on by insulin-resistant obese women, 280-283  
 with sibutramine or orlistat therapy, 432
- Adiponectin in obesity  
 CRP, NIDDM, monodrug therapy and, 1454-1461  
*see also* Adiponectin, effects of moderate weight loss by obese women on
- Adipose tissue (AT)  
 abdominal, *see* Abdominal adipose tissue  
 diet and, *see* Adipose tissue, diet and  
 distribution, *see* Adipose tissue distribution  
 exercise effects on, *see* Adipose tissue, exercise effects on  
 in hyperinsulinemic young men, whole-body protein synthesis and, 389  
 in IGT first-degree relatives of African American NIDDM subjects, 1553  
 isotretinoin effects on, 5  
 in LBW Pima Indians with normal glucose tolerance, 906  
 in lipodystrophic HIV-infected subjects, 1567  
 MHN-01 effects on, 980, 981  
 in non-obese subjects, *see* Adipose tissue in non-obese subjects

- Adipose tissue (AT) (*Continued*)  
 in obesity, *see* Adipose tissue in obesity  
 in overweight women, 1269  
 pinealectomy effects on adaptability of, to fasting, 500-506  
 in SCI men with MS, 1373, 1374  
 serum adiponectin association with, in young men, 590, 591  
 in severe lipodystrophy, effects of leptin replacement therapy on, 514  
 in Vietnamese children, apo E polymorphism and, 1519  
*see also* Fat mass and entries beginning with element: Adip-
- Adipose tissue (AT), diet and  
 correlation between food intake, serum leptin and, in sixth-month period following kidney transplantation, 614-619  
 effects of LF versus HF diet and caloric intake on, in obese NIDDM subjects, 455  
 relationship between alcohol intake, exercise and, to HDL-C levels, 700-709  
 restricted diet effects on glucocorticoid receptor and PPAR $\gamma$  signaling in, 28-36
- Adipose tissue (AT), exercise effects on  
 apo E genotype changes and, 195, 198, 199  
 effects of moderate exercise and soy isoflavone on bone loss and accumulation of, in postmenopausal subjects, 942-948  
 relationship between exercise, alcohol intake, and AT to HDL-C levels, 700-709
- Adipose tissue (AT) distribution  
 Pro12Ala polymorphism of PPAR $\gamma$ 2 effects on, in Korean women, 1538-1543  
*see also* Subcutaneous adipose tissue; Total adipose tissue; Visceral adipose tissue; White adipose tissue
- Adipose tissue (AT) in non-obese subjects  
 liver, in non-obese premenopausal women, metabolic risk and, 1066-1071  
 as predictor of fibrinogen level in non-obese men, 984-988
- Adipose tissue (AT) in obese NIDDM subjects  
 effects of LF versus HF diet and caloric intake on, 455  
 total, bezafibrate effects on, 407
- Adipose tissue (AT) in obesity  
 obese adolescents, 864  
 obese women, 1269  
*see also* Adipose tissue in obese NIDDM subjects; Obesity; Omental adipose tissue, subcutaneous and, in obese subjects
- Adipsin mRNA (messenger ribonucleic acid), CL316,243 effects on, in diabetes, 804
- Adjustable silicone gastric banding (ASGB), RYBG and, for morbid obesity, changes in BMC after, 918-921
- ADMA, *see* Asymmetric dimethylarginine
- Adolescents  
 IDDM Kuwaiti, cardiovascular disease risk factors associated with serum sialic acid in, 638-643  
 postpubertal Asian Indian, adiponectin, CRP, and IR in, 1336-1341  
*see also* Adolescents, obese
- Adolescents, obese  
 Japanese male adolescents, 448-453  
 serum TNF- $\alpha$  levels and components of MS in, 863-867
- ADR, *see* entries beginning with terms: Adrenergic receptor
- Adrenal androgens, cortisol and, in obese PCOS women, 361
- Adrenal (ovarian) hypothesis of PCOS, 360, 361
- Adrenal insufficiency, hypoglycemia effects on plasma PTH levels in, 1251-1254
- Adrenaline, *see* Epinephrine
- $\beta$  (beta)-Adrenergic blockers in CAD, 319
- $\beta$  (beta)-Adrenergic receptor (ADR), racial differences in density of, in subcutaneous and omental AT from obese women, 247-251
- $\beta_2$  (beta<sub>2</sub>)-Adrenergic receptor (ADR), interaction of  $\beta_3$ -ADR Trp64Arg and Arg16Gly polymorphisms with, serum lipid profile and, 1184-1191
- $\beta_3$  (beta<sub>3</sub>)-Adrenergic receptor (ADR), Trp64Arg polymorphism of association of increased leptin levels with, but not with - 3826A $\rightarrow$ G polymorphism of UCP-1 gene in Spanish subjects, 1411-1416  
 in GDM Taiwanese women, 1136-1139  
 interaction of Arg16Gly  $\beta_2$ -ADR polymorphism with, serum lipid profile and, 1184-1191
- Adrenocortical disorders, plasma cortisol in, in 89-94
- Adrenocorticotropin hormone (ACTH; corticotropin)  
 circulating, and cortisol concentrations in normal appropriate-for-gestational-age newborns versus newborns with respiratory distress and sepsis, 209-214  
 nighttime and daytime differences in counterregulation of hypoglycemia and, 895  
 plasma, *see* Plasma adrenocorticotropin hormone
- ADSF (adipocyte-secreted factor), *see* Resistin
- Adult cystic fibrosis (CF) with impaired glucose tolerance, insulin regulating kinetics of NEFAs in, 1467-1472
- Advanced non-insulin-dependent diabetes mellitus (NIDDM)  
 nephropathy, resting metabolic rate in, 1395-1398
- Adverse reactions to Pancreatic Tonic, 1170
- Aerobic capacity, *see*  $\dot{V}O_{2\max}$  during exercise
- Aerobic exercise, effects of low-fat, high-fiber diet and, on inflammatory and adhesion molecules in postmenopausal women on ERT and at risk for CAD, 377-381
- African Americans, *see* Race and ethnicity
- 1,5-AG (1,5-anhydroglucitol) in NIDDM, microalbuminuria and, 354
- Age  
 of acromegalic subjects, 565  
 adiponectin and, *see* Age, adiponectin and  
 $\beta_2$ -ADR Arg16Gly polymorphism and, 1184, 1185  
 of at-risk for NIDDM subjects, water diuresis-induced changes in renal cortex oxygenation and endothelial function and, 2  
 of CAD men, *see* Age of CAD men  
 carotid atherosclerosis, vascular dementia and, 477  
 of children with glycoprotein PC-1 K121Q polymorphism, 467  
 of chronic renal disease subjects, 1256  
 of CT subjects, 557  
 CV disease risk factors and, *see* Age, CV disease risk factors and diet and, *see* Age, diet and  
 of DM subjects, *see* Age of DM subjects  
 of Ecuadorian Amazon Shur women, 1356  
 effects of, on HbA<sub>1c</sub>, 1497  
 and effects of interaction between FABP-4 and PPAR $\gamma$ -activated receptor polymorphism, 305, 306  
 and erythrocyte membrane lipid composition, 574  
 exercise and, *see* Age, exercise and  
 gestational, *see* Gestational age  
 of HD subjects, 1014  
 of HL-deficient subjects, 522  
 of hypercholesterolemic subjects, *see* Age of hypercholesterolemic subjects  
 of hypogonadic men, 1175  
 of IGT subjects, *see* Age of IGT subjects  
 of insulin-resistant subjects, *see* Age of insulin-resistant subjects and isotretinoin effects on insulin sensitivity and plasma TGs, 5  
 of Japanese subjects, *see* Age of Japanese subjects  
 of kidney transplantation recipients, 615

Age (*Continued*)

of LBW Pima Indians with normal glucose tolerance, 906  
 leptin levels and, 1412-1414  
 of lipodystrophic subjects, *see* Age of lipodystrophic subjects  
 of MS subjects, *see* Age of MS subjects  
 on non-obese subjects, *see* Age of non-obese subjects  
 of normoglycemic men, and *ABCA1* expression-fasting glucose relationship, 19  
 of obese subjects, *see* Age of obese subjects  
 and pioglitazone effects on carotid artery IMT and stiffness in NIDDM nephropathy, 1383  
 and plasma LDL clearance, 484  
 and plasma vitamin K transport, 216  
 of PM women, *see* Age of PM women  
 and PPAR $\gamma$ 2 Pro12Ala polymorphism on AT distribution in Korean women, 1539  
 and pregnancy, *see* Age, pregnancy and  
 of prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia, 50  
 of premenopausal women, sex steroids and plasma Lp and, 189  
 and preservation of circadian rhythm of serum insulin concentration at low plasma glucose during fasting by overweight subjects, 1450  
 of primary hyperthyroidism subjects, 1102  
 $\omega$ -3 PUFA effects and, *see* Age,  $\omega$ -3 PUFA effects and  
 smoking effects and, *see* Age, and effects of smoking  
 and uncoupling protein-3 polymorphism-body composition association, 460  
 and WPG effects on normal or mildly elevated plasma cholesterol, 1311  
*see also specific age groups; for example:* Adolescents, Children  
 Age, adiponectin and  
 adiponectin levels, ethnic differences and, 2  
 C-reactive protein and, in obese NIDDM subjects, 1456  
 and NEFAs regulation by, 791  
 Age, CV disease risk factors and  
 diet and, 1437  
 of hypothyroidic subjects, 278  
 Age, diet and  
 acute effects of red wine drinking and food intake on vascular reactivity and, 1082  
 and PP TG response to different nutrients, 621  
 PPAR $\gamma$  Pro12Ala polymorphism effects on dietary fat-physical activity association with fasting insulin level, 13, 14  
 red and white wine drinking effects on circulating inflammation-sensitive molecules, 319  
*see also* Age, wine drinking and  
 Age, and effects of  $\omega$ -3 PUFAs with exercise  
 on HDL and LDL subfractions, 750  
 on PP lipemia, 1366  
 Age, and effects of smoking  
 acute effects of nicotine, 579  
 on intravascular remodeling of HDL particles, 860  
 Age, exercise and  
 cholesterol efflux in soccer players and, 1263  
 effects of apo E genotype changes on  $\dot{V} O_{2\max}$  and, 195, 198, 199  
 insulin concentration and CHO requirement in IDDM during moderate exercise, 1127  
 OC effects on glucoregulatory responses to exercise and, 350  
 by overweight nondiabetic subjects, 1236  
 and plasma nitrate/nitrite assessment during OGTT, 675  
 and PPAR $\gamma$  Pro12Ala polymorphism effects on dietary fat-physical activity association with fasting insulin level, 13, 14  
 $\omega$ -3 PUFAs and, *see* Age, and effects of  $\omega$ -3 PUFAs with exercise

Age, exercise and (*Continued*)

*see also* Age, resistance exercise effects and  
 Age, pregnancy and  
 GDM Taiwanese women with  $\beta_3$ -ADR Trp64Arg polymorphism, 1137  
 leucine turnover and, 546  
 and preeclampsia, 1434  
 Age,  $\omega$ -3 PUFA effects and  
 anti-inflammatory effects of  $\omega$ -3 PUFAs alone or combined with all-rac  $\alpha$ -tocopherol, 237  
*see also* Age, and effects of  $\omega$ -3 PUFAs with exercise  
 Age, resistance exercise effects and  
 in NIDDM women, 285  
 in older hypertensive subjects, 399  
 Age, wine drinking and  
 acute effects of red wine drinking and food intake on vascular reactivity and, 1082  
 red and white wine drinking effects on circulating inflammation-sensitive molecules, 319  
 Age of CAD men  
 red and white wine drinking effects on circulating inflammation-sensitive molecules and, 319  
 risk factors for myocardial infarction and, 325, 326  
 serum HDL-C, oxidized LDLs and, 424-426  
 Age of DM subjects  
 of GDM Taiwanese women with  $\beta_3$ -ADR Trp64Arg polymorphism, 1137  
 and relation between plasma VEGF, ET-1 concentration, and glycemic control, 551  
*see also* Age of IDDM subjects; Age of NIDDM subjects  
 Age of hypercholesterolemic subjects  
 of hypercholesterolemic women, simvastatin effects and, 745  
 of mildly hypercholesterolemic subjects, 1073  
 serum LPL concentration and, 527, 528  
 Age of IDDM subjects  
 energy substrate oxidation and, 656  
 and glycemic control effects on F<sub>2</sub> isoprostane level at IDDM onset, 1119  
 and insulin concentration and CHO requirement during moderate exercise, 1127  
 of Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641  
 oxidation of glycated and nonglycated LDLs and, 970  
 Age of IGT subjects  
 of IGT first-degree relatives of African American NIDDM subjects, 415  
 of non-obese IGT subjects, 625, 1553  
 Age of insulin-resistant obese subjects  
 with IGT or normal FPG, 1096  
 of insulin-resistant obese Japanese men, 651, 652  
 of insulin-resistant obese women, and moderate weight loss effects on plasma adiponectin, 281  
 Age of insulin-resistant subjects, 1109  
 fatty acid TG content and VAT accumulation and, 311, 312  
 with LVH, 778, 779  
 with NIDDM, cardiovascular autonomic dysfunction, microalbuminuria and, 1360  
 and relationship between BMI, beta-cell function, and IR, 1463  
 serum GPI-PLD and, 139  
*see also* Age of insulin-resistant obese subjects  
 Age of Japanese men  
 -1562C $\rightarrow$ T MMP-9 gene polymorphism association with BMD and, 136

Age of Japanese men (*Continued*)

Pro12Ala PPAR $\gamma$ 2 polymorphism and adiponectin concentrations in young men, 1549

## Age of Japanese NIDDM subjects

with incipient nephropathy, 1224  
insulin secretion and sensitivity and, 832

## Age of Japanese subjects

with beta-cell dysfunction, 950-952  
of Japanese men, *see* Age of Japanese men  
with NIDDM, *see* Age of Japanese NIDDM subjects  
and relationship between leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, HOMA IR index, serum soluble leptin receptor, serum leptin, serum adiponectin, and lipids, 881-883

## Age of lipodystrophic subjects

with HIV infection, 1567  
with severe lipodystrophy, 514

## Age of MS subjects

with CHD, 853  
with CRH, 722  
with liver cirrhosis, 923, 924  
with SCI, 1373

## Age of NIDDM subjects

alcohol effects on PP lipemia and, 78  
and association of corrected QT intervals with carotid artery IMT, 1153, 1155  
and in at-risk for NIDDM subjects, water diuresis-induced changes in renal cortex oxygenation and endothelial function and, 224  
bezafibrate effects on lipids and glucose metabolism in NIDDM and, 411  
glyburide and nateglinide effects on NIDDM and, 1332  
HbA<sub>1c</sub>-RBC membrane lipid composition correlation and, 124  
with IGT, 646  
and insulin therapy effects on serum high-sensitive CRP, 694, 697  
of Japanese subjects, *see* Age of Japanese NIDDM subjects  
metformin effects on risk factors for CV disease and, 160  
with microalbuminuria, *see* Age of NIDDM subjects with microalbuminuria  
NIDDM women, and resistance exercise effects on glycemic control, 285  
obese, *see* Age of obese NIDDM subjects  
overweight subjects, exercise effects in, 1236  
with retinopathy, 585, 586  
serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301

## Age of NIDDM subjects with microalbuminuria

and cardiovascular autonomic dysfunction, and IR, 1360  
glycemic control and, 354

## Age of non-obese subjects

non-obese men, AT as level fibrinogen level and, 985, 986  
of non-obese premenopausal women, 1068  
and preservation of circadian rhythm of serum insulin concentration at low plasma glucose during fasting, 1450

## Age of obese NIDDM subjects

adiponectin, C-reactive protein and, 1456  
bezafibrate effects on lipids and glucose metabolism and, 411

## Age of obese subjects

adolescents, 864  
children, 1244  
Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C and, 1055  
proliferation and differentiation of adipocyte precursor cells and, 633, 634

Age of obese subjects (*Continued*)

and relationship between BMI, beta-cell function, and insulin resistance, 1463  
and smoking-ADMA-obesity relationship, 1575  
women, *see* Age of obese women  
*see also* Age of insulin-resistant obese subjects; Age of obese NIDDM subjects

## Age of obese women

with IR, and moderate weight loss effects on plasma adiponectin, 281  
with NIDDM, bezafibrate effects on lipids and glucose metabolism and, 411  
PM women, fluvastatin effects on endothelial function and, 735  
and serum TNF soluble receptors, TNF- $\beta$ , and NO, 1269

## Age of PM women

hypercholesterolemic women, simvastatin effects and, 745  
insulin sensitivity and, 508  
obese, and fluvastatin effects on endothelial function, 735  
sex steroids, plasma Lp and, 189

Aging subjects, *see* Older subjects

AGP ( $\alpha_1$ -acid glycoprotein) in inflammation of chronic disease, 901, 902

Agricultural lifestyle, effects of traditional versus, on leptin in Ecuadoran Amazon Shuar women, 1355-1358

AICAR (5-aminoimidazole-4-carboxamide-1- $\beta$ -D-ribose nucleoside), glucose transport in SM stimulated by, 514

Akt1/protein kinase  $\beta\alpha$  (Akt1/PK $\beta\alpha$ ), insulin regulation of hepatic apo B production independently of mass or activity of, 228-236

## Alanine (Ala)

plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392  
*see also* Alanine aminotransferase; Pro12Ala polymorphism of PPAR $\gamma$ ; Pro12Ala polymorphism of PPAR $\gamma$ 2

## Alanine aminotransferase (ALT)

in dyslipidemic CRF subjects on HD, 1116  
in hyperuricemic Japanese male adolescents, 450  
in liver cirrhosis with IR, 923  
in obese subjects, *see* Alanine aminotransferase in obese subjects  
plasma, NO-1886 effects on, in STZ-DM, 261  
WPG effects on, 1312

## Alanine aminotransferase (ALT) in obese subjects

in hyperuricemic Japanese male adolescents, 450  
Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C and, 1057

## Albumin

in chronic renal disease, 1256  
and IR in liver cirrhosis, 923  
in Korean women, AT distribution and, 1541  
in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641  
plasma, and HHcy in disabled hospitalized older subjects, 1018  
serum, *see* Serum albumin  
in 6-month period following kidney transplantation recipients, 617  
*see also* Albuminuria

## Albuminuria

in IDDM, oxidation of glycated and nonglycated LDLs and, 970  
in NIDDM, corrected QT intervals association with carotid artery IMT and, 1155  
in NIDDM nephropathy, pioglitazone effects on, 1382-1386  
in NIDDM retinopathy, 586  
*see also* Microalbuminuria; Proteinuria

## Alcohol

bile, in CTX, treatment effects on, 558, 559

Alcohol (*Continued*)

- differential effects of glucose and, on ROS generation and intranuclear nuclear factor- $\kappa$ B in mononuclear cells, 330-334  
*see also* Alcohol intake
- Alcohol intake
  - atherosclerosis and, *see* Alcohol intake, atherosclerosis and by disabled hospitalized older subjects, HHcy and, 1018
  - drinking and, *see* Drinking
  - effects of, on risk for metabolic syndrome, 1506-1508
  - IR and, 722
  - in mild hypercholesterolemia, 1073, 1311
  - by NIDDM subjects, *see* Alcohol intake by NIDDM subjects
  - normal plasma cholesterol and, 1311
  - relationship of exercise, adiposity and, to HDL-C levels, 700-709
- Alcohol intake, atherosclerosis and
  - carotid atherosclerosis, vascular dementia and, 477
  - by normocholesterolemic prematurely atherosclerotic subjects with daytime hypertriglyceridemia, 51
- Alcohol intake by NIDDM subjects
  - effects of, on PP lipemia and PP incretin levels, 77-83
  - by IGT NIDDM subjects, as risk factor for CHD, 646
- Alkaline phosphatase (ALP)
  - in PM women, simvastatin effects on BMD and, 745, 746
  - in primary hyperthyroidism, 1102
  - in severe lipodystrophy, leptin replacement therapy effects on, 516
  - SR effects on, in MC3T3-E1 osteogenic cells, bone matrix mineralization and, 533
  - in STZ-DM, effects of oral vanadate with tea extract on, 1148
- ALP, *see* Alkaline phosphatase
- Alpha<sub>1</sub> ( $\alpha_1$ )-acid glycoprotein (AGP) in inflammation of chronic disease, 901, 902
- Alpha<sub>1</sub> ( $\alpha_1$ )-antichymotrypsin (ACT) in inflammation of chronic disease, 901, 902
- 7Alpha ( $\alpha$ )-hydroxylase, cholesterol, effects of ileal bile transport inhibition on plasma C level through FXR inactivation and stimulation of, 927-932
- 17alpha ( $\alpha$ )-hydroxylase/17,20-lyase deficiency, mutant CYP17 genes in, 1527-1531
- 3n3 Alpha ( $\alpha$ )-linolenic acid in MS, 312
- Alpha-lipoprotein, *see* High-density lipoprotein
- Alpha-lipoprotein-cholesterol, *see* High-density lipoprotein-cholesterol
- Alpha-tocopherol, *see*  $\alpha$ -Tocopherol
- ALT, *see* Alanine aminotransferase
- Alveolar macrophages, effects of caffeine on, via its effects on synthesis of cAMP and prostaglandin, 687-692
- Amazon Shuar women, Ecuadoran, effects of agricultural versus traditional lifestyle on, 1355-1358
- Amenorrhea, sex steroids and plasma Lp in, 189
- Amino acids (AA)
  - plasma concentrations of, and whole-body protein synthesis in hyperinsulinemic young men, 388-396
  - see also specific amino acids*
- 5-Aminoimidazole-4-carboxamide-1- $\beta$ -D-ribose nucleoside (AICAR), glucose transport stimulated in SM stimulated by, 514
- bis(*o*-Aminophenoxy)ethane-N,N,N',N' tetraacetic acetoxymethyl ester (dimethyl-BAPTA/AM), effects of, on IR and spontaneous hypertension, high-fat diet and, 269-272
- 4-Aminopyridine (4AP), effects of, on delayed vasorelaxation by troglitazone, 147-152
- Aminoterminal propeptide type 1 collagen in adrenal insufficiency, 1252
- Aminotransferase, *see* Alanine aminotransferase; Aspartate aminotransferase

- AMP, *see* Adenosine monophosphate
- Amyloid A, serum, aerobic exercise and high-fiber, low-fat diet effects on, in postmenopausal women on ERT and at risk for CAD, 377, 379-380
- Androgen(s)
  - aging NIDDM men with partial deficiency of, glycemic control and, 666-672
  - role of, in estrogen-deficient state, 187-192
  - see also* Androgen(s) in PCOS; Androgenicity
- Androgen(s) in PCOS
  - adrenal, 361
  - in obese PCOS women, antiandrogenic therapy of, 366, 370
  - ovarian, 360, 361
- Androgenicity, independent association of obesity and, with insulin sensitivity in postmenopausal women, 507-512
- Androstenedione
  - in premenopausal women, plasma Lp and, 189, 190
  - see also* Androstenedione in PM women
- Androstenedione in PM women
  - obese, insulin sensitivity and, 508-509
  - plasma Lp and, 189, 190
- Androsterone glucuronide in PCOS, 366
- Angiotensin-converting enzyme (ACE) inhibitors
  - in CAD, 319
  - in NIDDM, effects of, on microalbuminuria, 354
- Anglo subjects, *see* Race and ethnicity
- 1,5-Anhydroglucitol (1,5-AG) in NIDDM, microalbuminuria and, 354
- Antiandrogenic therapy of PCOS in obese women, 366, 370
- $\alpha_1$  ( $\alpha_1$ )-Antichymotrypsin (ACT) in inflammation of chronic disease, 901, 902
- Antidiabetic medications, *see* Glycemic control of DM
- Antigen, tPA- and PAI-, in NIDDM, 224
- Antihyperglycemic effects, *see* Glycemic control of DM
- Anti-inflammatory effects of  $\omega$ -3 polyunsaturated fatty acids alone or combined with *all-rac*  $\alpha$ -tocopherol, 236-240
- Aorta
  - abdominal, preclinical changes in, in obese children, 1243-1246
  - effects of micromolar copper concentrations on endothelium-dependent relaxation of, in DM, 1315-1321
- 4-AP (4-aminopyridine), effects of, on delayed vasorelaxation by troglitazone, 147-152
- Apo(s), *see specific apolipoproteins*
- Apolipoprotein A-1 (apo A-1)
  - ABCA1* gene and, *see* Apolipoprotein A-1, *ABCA1* gene and carotid atherosclerosis, vascular dementia and, 477
  - in chronic kidney disease with obesity and MS, 1255-1261
  - in dyslipidemic CRF subjects on HD, 1114
  - in erythrocyte membrane, 574
  - exercise and, *see* Apolipoprotein A-1, exercise and
  - and fat mass in acute SCI subjects, 991
  - in FCHL,  $\omega$ -3 PUFA effects on, 154
  - in hepatoma cells, *see* HepG2 cells, apo A-1 and
  - in hypercholesterolemia, serum LPL concentration and, 528
  - in IDDM, *see* Apolipoprotein A-1 in IDDM
  - in IR, serum GPI-PLD and, 139
  - plasma, *see* Plasma apolipoprotein A-1
  - in PM women, *see* Apolipoprotein A-1 in PM women
  - in premenopausal women, sex steroids and, 189
  - serum, in CAD men, 425
  - serum adiponectin and, in young men, 590
  - smoking effects on, 859, 860
- Apolipoprotein A-1 (apo A-1), *ABCA1* gene and
  - ABCA1* expression relation with fasting glucose in normoglycemic men, 19



- Apolipoprotein A-1 (apo A-1), *ABCA1* gene and (*Continued*)  
*ABCA1* polymorphism in Japanese school-age children, 182-186
- Apolipoprotein A-1 (apo A-1), exercise and  
 apo E polymorphism- $\dot{V}O_{2\max}$  association and, 111-113  
 endurance exercise, 196, 198-200  
 in soccer players, 1264
- Apolipoprotein A-1 (apo A-1) in IDDM  
 in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641  
 plasma apo C-3 polymorphisms and, 1299
- Apolipoprotein A-1 (apo A-1) in PM women  
 obese women, fluvastatin effects on, 736  
 and sex steroids, 189
- Apolipoprotein A-2 (apo A-2)  
 erythrocyte membrane, 574  
 in FCHL,  $\omega$ -3 PUFA effects in, 154  
 in obese PM women, fluvastatin effects on, 736  
 serum, in CAD men, 425  
 in soccer players, 1264
- Apolipoprotein A-2 (apo A-2) promoter, SFA effects on Sp1  
 induction of, 1342-1348
- Apolipoprotein B (apo B)  
 atherosclerosis and, *see* Apolipoprotein B in atherosclerosis  
 in dyslipidemic CRF subjects on HD, 1114, 1115  
 erythrocyte membrane, 574  
 exercise and, *see* Apolipoprotein B, exercise and  
 and fat mass in acute SCI subjects, 991  
 in FCHL,  $\omega$ -3 PUFA effects in, 154  
 hepatic, insulin regulating production of, independently of PKB $\alpha$ /  
 Akt1 mass or activity, 228-236  
 in hypercholesterolemia, serum LPL concentration and, 528  
 in IDDM, *see* Apolipoprotein B in IDDM  
 in IR, plasma NEFA regulation and, 1198  
 levels of, associated with *ABCA1* polymorphism in Japanese  
 school-age children, 183  
 in MS, 312, 313, 315  
 in NIDDM, serum PON1 polymorphism, vascular complications,  
 plasma oxidized LDL level and, 299, 301  
 plasma, in premenopausal women, sex steroids and, 189  
 in PM women, *see* Apolipoprotein B in PM women  
 smoking effects on, 860  
 in subclinical hypothyroidism, 1513  
 in young men, serum adiponectin and, 590
- Apolipoprotein B (apo B), exercise and  
 apo E polymorphism- $\dot{V}O_{2\max}$  association and, 111-113  
 endurance exercise, 196, 198-201  
 soccer playing, 1264
- Apolipoprotein B (apo B) in atherosclerosis  
 in normocholesterolemic prematurely atherosclerotic subjects with  
 daytime hypertriglyceridemia, 50  
 vascular dementia and carotid atherosclerosis, 477
- Apolipoprotein B (apo B) in IDDM  
 in Kuwaiti children and adolescents, CV disease risk factors and,  
 640, 641  
 plasma apo C-3 polymorphisms and, 1299, 1301
- Apolipoprotein B (apo B) in PM women  
 obese women, fluvastatin effects on, 736  
 sex steroids and, 189
- Apolipoprotein B-48 (apo B-48) in chronic kidney disease, obesity,  
 and MS, 1255-1261
- Apolipoprotein B-100 (apo B-100)  
 in chronic kidney disease, obesity, and MS, 1255-1261  
 in HL deficiency, 522, 523
- Apolipoprotein C-2 (apo C-2)  
 Apolipoprotein C-2 (apo C-2) (*Continued*)  
 in dyslipidemic CRF subjects on HD, 1114  
 in hypercholesterolemia, serum LPL concentration and, 528  
 in obese PM women, fluvastatin effects on, 736  
 serum, in CAD men, 425
- Apolipoprotein C-3 (apo C-3)  
 in dyslipidemic CRF subjects on HD, 1114, 1115  
 in hypercholesterolemia, serum LPL concentration and, 528  
 in obese PM women, fluvastatin effects on, 736  
 polymorphisms of plasma, in IDDM, 1296-1304  
 serum, *see* Serum apolipoprotein C-3
- Apolipoprotein E (apo E)  
 carotid atherosclerosis, vascular dementia and, 477  
 in dyslipidemic CRF subjects on HD, 1114  
 effects of circulating blood cells on atherosclerosis in apo E  
 deficiency, 95-100  
 in hypercholesterolemia, serum LPL concentration and, 528  
 in obese PM women, fluvastatin effects on, 736  
 serum, in CAD men, 425  
*see also* Apolipoprotein E genotype; Apolipoprotein E  
 polymorphism
- Apolipoprotein E (apo E) genotype, changes in serum lipids and  
 $\dot{V}O_{2\max}$  during endurance exercise and, 193-202
- Apolipoprotein E (apo E) polymorphism  
 and changes in blood lipids and  $\dot{V}O_{2\max}$  association in sedentary  
 and exercising subjects, 108-116  
 in Vietnamese children, relationship of, to plasma lipids and Lps,  
 1517-1521
- Appropriate-for-gestational-age newborns, normal, circulating ACTH  
 and cortisol concentrations in newborns with respiratory  
 distress and sepsis versus, 209-214
- Arachidonic acid  
 effects of inhibition of, on apo A-1 promoter activity in hepatoma  
 cells, 177  
 erythrocyte membrane lipid composition in men associated with,  
 insulin sensitivity and, 571-577
- Arg, *see* Arginine
- Arg16Gly polymorphism,  $\beta_2$ -ADR, interaction of  $\beta_3$ -ADR Trp64Arg  
 polymorphism with, serum lipid profile and, 1184-1191
- Arginase, effects of different glucose levels on NO production and  
 activity of, in renal cortex, 868-874
- Arginine (Arg)  
 plasma, effects of, on whole-body protein synthesis in  
 hyperinsulinemic young men, 392  
*see also*  $\beta_3$ -Adrenergic receptor, Trp64Arg polymorphism of;  
 Arg16Gly polymorphism of  $\beta_2$ -ADR; Arginine-vasopressin;  
 Asymmetric dimethylarginine; Lys109Arg and Gln223Arg  
 polymorphisms
- Arginine-vasopressin (AVP)  
 and 4AP effects on delayed vasorelaxation by troglitazone, 147-  
 152  
 response of, to exercise by nondiabetic and IDDM smokers, 1140-  
 1144
- Arginine-vasopressin<sub>2</sub> (AVP<sub>2</sub>) mRNA (messenger ribonucleic acid)  
 in IMCD, ET effects on, 1177-1183
- Arterial pressure, *see* Blood pressure
- Arterial stiffness, pioglitazone effects on carotid IMT and, in  
 NIDDM nephropathy, 1382-1386
- Arteriosclerosis obliterans in NIDDM, serum PON1 polymorphism,  
 plasma oxidized LDL level and, 299
- Arylesterase, serum PON1 polymorphism, vascular complications,  
 plasma oxidized LDL level and, in NIDDM, 301
- Ascorbic acid, *see* Vitamin C

- ASGB (adjustable silicone gastric banding), RYBG and, for morbid obesity, changes in BMC after, 918-921
- Asian Indian adolescents, postpubertal, adiponectin, CRP, and IR in, 1336-1341
- Asparagine (Asn), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- Aspartate aminotransferase (AST)  
in dyslipidemic CRF subjects on HD, 1116  
in obese Korean subjects, -3826A→G UCP-1 polymorphism effects on level of LDL-C and, 1057  
plasma, NO-1886 effects on, in STZ-DM, 261  
WPG effects on, 1312
- Aspirin therapy of CAD, 319
- AST, *see* Aspartate aminotransferase
- Asymmetric dimethylarginine (ADMA)  
plasma, diet composition as determinant of, in mild hypercholesterolemia, 1072-1074  
relationship between smoking, obesity and, 1574-1579
- AT, *see* Adipose tissue
- Atherogenic particles of LDLs, HC diet effects on, 823-830
- Atherosclerosis  
in apo E-deficient subjects, effects of circulating blood cells on, 95-100  
carotid, sLDLs, vascular dementia and, 476-482  
premature, normocholesterolemia and daytime hypertriglyceridemia in first-degree relatives of subjects with, 49-53  
*see also* Coronary artery disease  
-3826A→G polymorphism of UCP-1, effects of, on LDL-C level in obese Korean subjects, 1054-1059
- Athletes, *see* Exercise
- Atorvastatin, effects of, on lipids, LDLs, and CRPs in dyslipidemic CRF subjects on HD, 1113-1117
- ATPCL, *see* Adenosine triphosphate-citrate lyase; Adenosine triphosphate-citrate lyase mRNA
- At-rest subjects, *see* Sedentary subjects
- Autonomic dysfunction, cardiovascular, microalbuminuria, IR and, in NIDDM, 1359-1364
- AVP, *see* Arginine-vasopressin
- Ayurvedic herbal supplement (Pancreatic Tonic), effects of, in NIDDM, 1166-1173
- Beer ingestion, effects of sauna bathing and, on plasma concentration of purine bases, 772-776
- Beta (β)-adrenergic blockers in CAD, 319
- Beta (β)-adrenergic receptor, racial differences in density of, in subcutaneous and omental AT of obese women, 247-251
- Beta<sub>2</sub> (β<sub>2</sub>)-adrenergic receptor (ADR), interaction of β<sub>3</sub>-ADR Trp64Arg polymorphism with Arg16Gly polymorphism of, serum lipid profile and, 1184-1191
- Beta<sub>3</sub>-adrenergic receptor, *see* β<sub>3</sub>-Adrenergic receptor, Trp64Arg polymorphism of
- Beta (β)-carboxy terminal telopeptide of type 1 collagen in adrenal insufficiency, 1252
- Beta (β) cells  
dysfunctional, and development of hyperglycemia in Japanese subjects, 943-954  
pioglitazone effects on insulin secretion and loss of mass of, in obese NIDDM subjects, 488-494  
of relationship between BMI, IR, and function of, 1462-1466
- 7Beta (β)-hydroxy bile acids, hydrophilic, effectiveness of lovastatin, cholestyramine, chenodeoxycholic acid and, in cerebrotendinous xanthomatosis, compared, 556-562
- 11Beta (β)-hydroxysteroid dehydrogenase 1 (11β-HSD1) mRNA (messenger ribonucleic acid)  
in AT, effects of restricted diet on, 30-31  
hepatic, responsiveness of body weight and, to 11β-HSD1 inhibition by glycyrrhetic acid, 600-606
- 11Beta (β)-hydroxysteroid dehydrogenase 2 (11β-HSD2) mRNA (messenger ribonucleic acid), renal, responsiveness of body weight and, to 11β-HSD1 inhibition by glycyrrhetic acid, 600-606
- Betaine in cystathionine-β-synthase deficiency, 594-599
- Beta lipoprotein, *see* Low-density lipoprotein
- Beta lipoprotein-cholesterol, *see* Low-density lipoprotein-cholesterol
- Bezafibrate, effects of, on lipids and glucose metabolism in obese NIDDM subjects, 405-413
- BF (blood flow), medullary, tempol effects on hypertension and hyperinsulinemia based on increase of, 1305-1308
- Bile, hepatic, plasma 27-hydroxycholesterol and plasma 7α-hydroxy-4-cholesten-3-one as markers of synthesis of, dietary cholesterol and, 42-48
- Bile acids, hydrophilic 7β-hydroxy, effectiveness of lovastatin, cholestyramine, chenodeoxycholic acid and, in cerebrotendinous xanthomatosis, compared, 556-562
- Bile alcohols in CTX, treatment effects on, 558, 559
- Bile duct ligation, effects of galactosamine-induced liver disease and, on cardiac protein synthesis, 964-968
- Bile transport, effects of inhibition of ileal, on plasma cholesterol level through hepatic farnesoid X receptor inactivation and cholesterol 7α-hydroxylase stimulation, 927-932
- Bilirubin  
serum, *see* Serum bilirubin  
total, *see* Total bilirubin  
WPG effects on, in normal and mildly elevated plasma cholesterol, 1312
- Binding protein, *see* Fatty acid-binding protein-4; Growth hormone-binding protein; Insulin-like growth factor-binding protein(s); Insulin-like growth factor-binding protein 3 protease; Retinoic acid binding protein-1 mRNA; Sterol regulatory element binding protein-1
- Biphosphatase, fructose-1,6-, *P* *yoelli* GPI effects on, in STZ-DM with obesity, 1050
- Birth weight  
low, in normal glucose-tolerant Pima Indians, insulin secretion and insulin sensitivity in, 904-911  
relation of intracellular cord blood platelet magnesium to, 1544-1547
- Black Americans, *see* Race and ethnicity
- Blood cells, effects of circulating, on atherosclerosis in apo E-deficient subjects, 95-100
- Blood cholesterol (C)  
apo E polymorphism association with VO<sub>2max</sub> and, in exercising and sedentary subjects, 111-113  
*see also* Hypercholesterolemia
- Blood flow (BF), increase of medullary, and tempol effects on hypertension and hyperinsulinemia, 1305-1308
- Blood glucose  
in early NIDDM nephropathy, 1476  
fasting, *see* Fasting blood glucose  
with high-sucrose diet, NOS inhibition and pioglitazone effects on, 23  
in postmenopausal women on ERT and at risk for CAD, 378  
in treatment-seeking obese insulin-resistant subjects, 436  
*see also* Blood glucose in STZ-DM; Glycemic control of DM; Hyperglycemia; Hypoglycemia and entries beginning with term: Normoglycemic

- Blood glucose in STZ-DM  
 leptin effects on, 1559  
 with obesity, 1050
- Blood high-density lipoprotein<sub>3</sub>-cholesterol (HDL<sub>3</sub>-C), apo E  
 polymorphism association with  $\dot{V}O_{2\max}$  and, in exercising  
 subjects, 111-113
- Blood lipids  
 apo E polymorphism and changes in  $\dot{V}O_{2\max}$  and, in sedentary  
 and exercising subjects, 108-116  
*see also* Dyslipidemia in NIDDM; High-fat/high-cholesterol diet,  
 lipemic response to; Hypercholesterolemia; Hyperlipidemia;  
 Hypertriglyceridemia; Postprandial lipemia, exercise effects  
 on
- Blood low-density lipoprotein-cholesterol (LDL-C), apo E  
 polymorphism and changes in  $\dot{V}O_{2\max}$  and, during exercise  
 and in sedentary subjects, 111-113
- Blood pressure (BP)  
 and *ABCA1* gene expression-fasting glucose relationship in  
 normoglycemic men, 19  
 in adolescents, *see* Blood pressure in adolescents  
 and AT distribution in Korean women, 1539  
 in atherosclerosis, *see* Blood pressure in atherosclerosis  
 in CAD men, *see* Blood pressure in CAD men  
 CV disease risk factors and, *see* Blood pressure, CV disease risk  
 factors and  
 diet and, *see* Blood pressure, diet and  
 and erythrocyte membrane lipid composition, 574  
 of exercising PM women on or not on ERT, 1194  
 HPA and, 722  
 in hypothyroidism, T<sub>4</sub> therapy effects on endothelial function and,  
 279  
 in IDDM, *see* Blood pressure in IDDM  
 in IGT first-degree relatives of African American NIDDM  
 subjects, 1553  
 in IR, *see* Blood pressure in IR  
 of Japanese subjects, *see* Blood pressure in Japanese subjects  
 in mild hypercholesterolemia, 1073, 1074  
 in MS, 312, 313, 315  
 in NIDDM, *see* Blood pressure in NIDDM  
 in NIDDM nephropathy, *see* Blood pressure in NIDDM  
 nephropathy, pioglitazone effects on  
 in NIDDM retinopathy, 585, 586  
 of non-obese subjects, *see* Blood pressure of non-obese subjects  
 in obesity, *see* Blood pressure in obesity  
 PP, stevioside effects on, 75  
 in preeclampsia, 1434  
 and smoking-ADMA-obesity relationship, 1575, 1576  
 smoking effects, 860  
 of young subjects, *see* Blood pressure of young subjects
- Blood pressure (BP), CV disease risk factors and  
 diet, lifestyle, and plasma CRPs associated with CV disease risk  
 factors, 1437, 1438  
 in Kuwaiti children, 640, 641  
 in overweight and non-obese insulin-resistant subjects, 498
- Blood pressure (BP), diet and  
 acute effects of red wine drinking and food intake on vascular  
 reactivity and, 1082  
 lifestyle, plasma CRPs, and diet associated with CV disease risk  
 factors and, 1437, 1438
- Blood pressure (BP) in adolescents  
 in Kuwaiti adolescents, 640, 641  
 in postpubertal Asian Indian adolescents, 1338, 1339  
*see also* Blood pressure of obese adolescents
- Blood pressure (BP) in atherosclerosis  
 Blood pressure (BP) in atherosclerosis (*Continued*)  
 carotid atherosclerosis, 477  
 in normocholesterolemic prematurely atherosclerotic subjects with  
 daytime hypertriglyceridemia and in their first-degree  
 relatives, 50
- Blood pressure (BP) in CAD men  
 effects of red and white wine drinking on, 319, 320  
 as risk factor for myocardial infarction, 325, 326
- Blood pressure (BP) in IDDM  
 of Kuwaiti IDDM children and adolescents, CV disease risk  
 factors and, 640, 641  
 oxidation of glycated and nonglycated LDLs and, 970
- Blood pressure (BP) in IR  
 CHD and, 853-855  
 and cilostazol effects on microalbuminuria, 1407  
 and CV disease risk factors in overweight and non-obese subjects,  
 498  
 HPA dysfunction and, 722, 724  
 with LVH, 778, 779  
 measures of IR and, 1524  
 plasma NEFA regulation and, 1198  
*see also* Blood pressure in obesity with IR
- Blood pressure (BP) in Japanese subjects  
 with beta-cell dysfunction, 950  
 and relationship between leptin receptor gene Lys109Arg and  
 Gln223Arg polymorphisms, HOMA IR index, serum soluble  
 leptin receptor, serum leptin, serum adiponectin, and lipids,  
 881-883
- Blood pressure (BP) in NIDDM  
 association of corrected QT intervals with carotid artery IMT and,  
 1153, 1155, 1156  
 and in at-risk for NIDDM subjects, water diuresis-induced  
 changes in renal cortex oxygenation and endothelial function  
 and, 224  
 with cardiovascular autonomic dysfunction, microalbuminuria, and  
 IR, 1360, 1362  
 insulin therapy effects on, 694, 697  
 metformin effects on, 160  
 with microalbuminuria, 354  
 in obesity, *see* Blood pressure in obesity  
 Pancreas Tonic effects on, 1169  
 PP, stevioside effects on, 75  
 renal cortex oxygenation, endothelial function and, 224  
*see also* Blood pressure in NIDDM nephropathy
- Blood pressure (BP) in NIDDM nephropathy  
 incipient nephropathy in Japanese subjects, 1224  
*see also* Blood pressure in NIDDM nephropathy, pioglitazone  
 effects on
- Blood pressure (BP) in NIDDM nephropathy, pioglitazone effects on  
 on carotid artery IMT and stiffness, 1383  
 on early NIDDM nephropathy, 1476
- Blood pressure (BP) of non-obese subjects  
 and AT as fibrinogen level predictor, 985, 986  
 in non-obese premenopausal women, metabolic risk and, 1068-  
 1070
- Blood pressure (BP) of obese adolescents  
 hyperuricemic male adolescents, 450, 452  
 with MS components, TNF and, 864, 865
- Blood pressure (BP) of obese women  
 effects of moderate weight loss and sibutramine or orlistat on, 432  
 fluvastatin effects on, 735
- Blood pressure (BP) in obesity  
 in adolescents, *see* Blood pressure of obese adolescents  
 in children, preclinical changes in abdominal aorta and, 1244



- Blood pressure (BP) in obesity (*Continued*)  
 with IR, *see* Blood pressure in obesity with IR  
 in Korean subjects, -3826A→G UCP-1 polymorphism effects on level of LDL-C and, 1055, 1056  
 with MS, *see* Blood pressure in obesity with MS  
 in women, *see* Blood pressure of obese women
- Blood pressure (BP) in obesity with IR  
 CV disease risk factors associated with, 498  
 in Japanese subjects, 651
- Blood pressure (BP) in obesity with MS  
 in obese adolescents, 864, 865  
 in treatment-seeking subjects, 436
- Blood pressure (BP) of young subjects  
 with NIDDM parents, and LDL susceptibility to oxidation and circulating adhesion molecules, 756  
 serum adiponectin and, 590  
 in young men with hypertensive parents, 470, 473
- Blood samples kept frozen at  $-80^{\circ}\text{C}$ , analysis of HbA<sub>1c</sub> in, 1496-1499
- Blood triglycerides (TGs)  
 in exercise, apo E polymorphism- $\dot{V}\text{O}_{2\text{max}}$  association and, 111-113  
*see also* Hypertriglyceridemia
- Blood urea nitrogen, *see* BUN
- BMC (bone mineral content), changes in, after RYBG and ASGB for morbid obesity, 918-921
- BMD, *see* Bone mineral density
- BMI, *see* Body mass and body mass index
- BNP (brain natriuretic peptide) in IR with LVH, candesartan effects on, 778-780
- Body composition  
 L-carnitine effects on fat oxidation, protein turnover and, in slightly overweight subjects, 1001-1006  
 effects of interaction between FABP-4 and PPAR $\gamma$ -activated receptor polymorphism on insulin sensitivity and, in men, 303-309  
 effects of leptin replacement therapy for severe lipodystrophy on, 513-519  
 of Korean women, AT distribution and, 1539  
 in NIDDM, *see* Body composition in NIDDM  
 of PM women, *see* Body composition of PM women, exercise effects on  
 uncoupling protein-3 polymorphism associated with food intake and, 458-464  
*see also* Adipose tissue; Fat mass; Fat-free mass; Skeletal muscle
- Body composition in NIDDM  
 in NIDDM women, resistance training effects on, 286  
 with obesity, effects of LF versus HF diet on, 456
- Body composition of PM women, exercise effects on  
 exercise effects on women on or not on ERT, 1192-1196  
 moderate exercise with soy isoflavone effects, 944-945
- Body fat, *see* Adipose tissue
- Body mass and body mass index (BMI)  
 and *ABCA1* gene expression-fasting glucose relationship in normoglycemic men, 19  
 acute effects of nicotine and, 579  
 of acute SCI subjects, 990  
 adiponectin levels and, 2  
 $\beta_2$ -ADR Arg16Gly polymorphism and, 1184, 1185  
 and AT distribution in Korean women, 1539, 1541  
 atherosclerosis and, *see* Body mass and body mass index of atherosclerotic subjects  
 of CAD men, *see* Body mass and body mass index of CAD men  
 of chronic renal disease patients, 1256
- Body mass and body mass index (BMI) (*Continued*)  
 CV disease risk factors and, *see* Body mass and body mass index, CV disease risk factors and  
 diet and, *see* Body mass and body mass index, diet and  
 in disabled hospitalized older subjects, HHcy and, 1018  
 of DM subjects, *see* Body mass and body mass index of DM subjects  
 of exercising subjects, *see* Body mass and body mass index, exercise and  
 of HD subjects, 1014  
 of HL-deficient subjects, 522  
 of hypercholesterolemic subjects, *see* Body mass and body mass index of hypercholesterolemic subjects  
 of hypogonadic men, 1175  
 of insulin-resistant subjects, *see* Body mass and body mass index of insulin-resistant subjects  
 of insulin-sensitive subjects, *see* Body mass and body mass index of insulin-sensitive subjects  
 of Japanese subjects, *see* Body mass and body mass index of Japanese subjects  
 of kidney transplantation recipients, 615  
 of LBW Pima Indians with normal glucose tolerance, 906  
 leptin levels and, 1412, 1413  
 of lipodystrophic subjects, *see* Body mass and body mass index of lipodystrophic subjects  
 in obesity, *see* Body mass and body mass index in obesity  
 plasma LDL clearance and, 484  
 plasma vitamin K transport and, 216  
 of PM women, *see* Body mass and body mass index of PM women  
 in postpubertal Asian Indian adolescents, 1338-1340  
 of pregnant subjects, *see* Body mass and body mass index of pregnant subjects  
 of premenopausal women, sex steroids, plasma Lp and, 189  
 and preservation of circadian rhythm of serum insulin concentration at low plasma glucose during fasting by overweight subjects, 1450  
 rhGH therapy effects on, in GH-deficient subjects, 741  
 and risk for metabolic syndrome and, 1505, 1506; *see also* Body mass and body mass index of MS subjects  
 of slightly overweight subjects, effects of L-carnitine and, 1002  
 of smokers, *see* Body mass and body mass index of smokers  
 of subclinical hypothyroidism subjects, 1513  
 and UCP-3 polymorphism-body composition association, 460  
 of Vietnamese children with apo E polymorphism and, 1519  
 and WPG effects on normal or mildly elevated plasma cholesterol, 1311  
 of young men, *see* Body mass and body mass index of young men
- Body mass and body mass index (BMI), CV disease risk factors and diet and, 1437, 1438  
 in Kuwaiti children and adolescents, 640, 641  
 in NIDDM insulin-resistant overweight and normoponderal subjects, 495-498
- Body mass and body mass index (BMI), diet and  
 CV disease risk factors and, 1437, 1438  
 effects of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol, 237  
 high-fiber, low-fat diet and aerobic exercise effects in PM women on ERT and at risk for CAD, 378  
 and PP TG response to different nutrients, 621  
 PPAR $\gamma$  Pro12Ala polymorphism effects on dietary fat association with fasting insulin and physical activity, 13, 14  
 relationship between exercise, alcohol intake, and adiposity to HDL-C levels and, 704, 706

- Body mass and body mass index (BMI), diet and (*Continued*)  
*see also* Body mass and body mass index, wine drinking and
- Body mass and body mass index (BMI), exercise and  
 and apo E polymorphism association with changes in blood lipids  
 and  $\dot{V}O_{2\max}$ , 110  
 in IDDM, insulin concentration and CHO requirement during  
 moderate exercise, 1127  
 OC effects on, 350  
 of older hypertensive subjects, resistance exercise effects on, 399  
 and plasma nitrate/nitrite assessment during OGTT, 675  
 of PM women, *see* Body mass and body mass index of exercising  
 PM women on ERT  
 and PPAR $\gamma$  Pro12Ala polymorphism effects on dietary fat  
 association with fasting insulin and physical activity, 13, 14  
 $\omega$ -3 PUFA with exercise effects on, 1366  
 relationship of exercise, alcohol intake, and adiposity to HDL-C  
 levels and, 704, 706  
 of soccer players, 1263
- Body mass and body mass index (BMI), wine drinking and  
 and acute effects of red wine drinking and food intake on vascular  
 reactivity, 1082  
 and red and white wine drinking effects in CAD men, 319
- Body mass and body mass index (BMI) of atherosclerotic subjects  
 carotid atherosclerotic subjects, 477  
 prematurely atherosclerotic subjects with normocholesterolemia  
 and daytime hypertriglyceridemia, 50
- Body mass and body mass index (BMI) of CAD men  
 red and white wine drinking effects on, 319  
 as risk factor for myocardial infarction, 325, 326  
 serum HDL-C, oxidized LDLs and, 424, 425
- Body mass and body mass index (BMI) of DM subjects  
 and relation between plasma VEGF, ET-1 concentration, and  
 glycemic control, 551  
*see also* Body mass and body mass index of IDDM subjects;  
 Body mass and body mass index of NIDDM subjects
- Body mass and body mass index (BMI) of exercising PM women on  
 ERT  
 or not on ERT, 1194  
 in women at risk for CAD, aerobic exercise and high-fiber, low-  
 fat diet effects, 378
- Body mass and body mass index (BMI) of hypercholesterolemic  
 subjects  
 of mildly hypercholesterolemic subjects, 1073  
 serum LPL concentration and, 527, 528
- Body mass and body mass index (BMI) of IDDM subjects  
 energy substrate oxidation and, 656  
 of IDDM men, and AT as fibrinogen level predictor, 985, 986  
 insulin concentration and CHO requirement during moderate  
 exercise and, 1127  
 of Kuwaiti IDDM children and adolescents, CV disease risk  
 factors and, 640, 641  
 oxidation of glycated and nonglycated LDLs and, 970  
 plasma apo C-3 polymorphisms and, 1299
- Body mass and body mass index (BMI) of insulin-resistant subjects  
 with cardiovascular autonomic dysfunction and microalbuminuria,  
 1360, 1362  
 and CV risk factors in overweight and normal weight insulin-  
 resistant NIDDM subjects, 495-498  
 with liver cirrhosis, 923, 924  
 with LVH, 778, 779  
 minimal model analysis of relationship between beta-cell function,  
 IR and, 1462-1466  
 plasma NEFA regulation and, 1198  
 serum GPI-PLD and, 139
- Body mass and body mass index (BMI) of insulin-resistant subjects  
 (*Continued*)  
*see also* Body mass and body mass index of non-obese insulin-  
 resistant subjects; Body mass and body mass index in obese  
 insulin-resistant subjects
- Body mass and body mass index (BMI) of insulin-sensitive subjects  
 estimates of insulin sensitivity and, 1109  
 and isotretinoin effects on insulin sensitivity, 5
- Body mass and body mass index (BMI) of Japanese subjects  
 with beta-cell dysfunction, 950, 952  
 Japanese men, -1562C $\rightarrow$ T MMP-9 polymorphism association  
 with BMD and, 136  
 Japanese school-age children, *ABCA1* gene polymorphism and,  
 183  
 with NIDDM and incipient nephropathy, 1224  
 and relationship between leptin receptor gene Lys109Arg and  
 Gln223Arg polymorphisms, HOMA IR index, serum soluble  
 leptin receptor, serum leptin, serum adiponectin, and lipids,  
 881-883
- Body mass and body mass index (BMI) of lipodystrophic subjects  
 with HIV infection, 1567  
 with severe lipodystrophy, 514, 515
- Body mass and body mass index (BMI) of MS subjects  
 central HPA dysregulation and, 722, 723  
 with CHD, 853-855  
 effects of exercise on MS in PM women, 1194  
 fatty acid TG content, VAT and, 312, 313
- Body mass and body mass index (BMI) of NIDDM subjects  
 adiponectin, CRP and, 1456, 1457  
 alcohol effects on, 78  
 and association of corrected QT intervals with carotid artery IMT,  
 1153, 1155  
 with cardiovascular autonomic dysfunction, microalbuminuria, and  
 IR, 1360, 1362  
 correlation between serum PON1 polymorphism, vascular  
 complications, plasma oxidized LDLs and, 299  
 CV disease risk factors and, *see* Body mass and body mass index  
 of NIDDM subjects, CV disease risk factors and  
 and glyburide and nateglinide effects on NIDDM, 1332  
 with IGT, 646  
 insulin therapy effects on, 697, 698  
 Japanese subjects, insulin secretion and insulin sensitivity and, 832  
 microalbuminuria and, 354  
 and Pancreas Tonic effects, 1169  
 with retinopathy, 585, 586
- Body mass and body mass index (BMI) of NIDDM subjects, CV  
 disease risk factors and  
 in insulin-resistant overweight and normal weight subjects, 495-  
 498  
 metformin effects on, 160
- Body mass and body mass index (BMI) in non-obese insulin-  
 resistant subjects  
 in NIDDM Korean subjects, 142-146  
 and preservation of circadian rhythm of serum insulin  
 concentration at low plasma glucose during fasting by non-  
 obese subjects, 1450
- Body mass and body mass index (BMI) in obese insulin-resistant  
 subjects  
 CV disease risk factors and, 495-498  
 Japanese men, 651  
 with IGT or normal FPG, 1096, 1097
- Body mass and body mass index (BMI) of obese PM women  
 androgenicity, insulin sensitivity and, 508, 509  
 fluvastatin effects on, 735, 736

- Body mass and body mass index (BMI) of obese women  
 androgenicity, insulin sensitivity and, 508, 509  
 effects of moderate weight loss and sibutramine or orlistat on, 432  
 PM women, *see* Body mass and body mass index of obese PM women  
 serum TNF soluble receptors, TNF- $\beta$ , NO and, 1269
- Body mass and body mass index (BMI) in obesity  
 in hyperuricemic Japanese male adolescents, 452  
 with IR, *see* Body mass and body mass index in obese insulin-resistant subjects  
 Korean subjects, -3826A→G UCP-1 polymorphism effects on level of LDL-C and, 1055, 1056  
 minimal model analysis of relationship between IR, beta-cell function and, 1462-1466  
 with NIDDM, adiponectin and C-reactive protein and, 1456, 1457  
 obese women, *see* Body mass and body mass index of obese women  
 preadipocyte differentiation and proliferation and, 633, 634  
 and smoking-ADMA-obesity relationship, 1575, 1576
- Body mass and body mass index (BMI) of PM women  
 on ERT, *see* Body mass and body mass index of exercising PM women on ERT  
 obese, *see* Body mass and body mass index of obese PM women  
 sex steroids, plasma Lp and, 189
- Body mass and body mass index (BMI) of pregnant subjects  
 leucine turnover and, 546  
 with preeclampsia, 1434, 1435
- Body mass and body mass index (BMI) of smokers  
 acute effects of nicotine and, 579  
 and smoking-ADMA-obesity relationship, 1575, 1576
- Body mass and body mass index (BMI) of young men  
 insulin sensitivity and, 470  
 Japanese, Pro12Ala PPAR $\gamma$ 2 polymorphism, adiponectin and, 1549, 1550  
 serum adiponectin, HDL-C, LDL-C particle size, TGs and, 590
- Body weight (BW)  
 of acute SCI subjects, 990  
 and AT distribution in Korean women, 1539, 1541  
 at birth, *see* Birth weight  
 of children with glycoprotein PC-1 K121Q polymorphism, 467  
 of chronic renal disease subjects, 1256  
 diet effects on, *see* Body weight, diet effects on  
 of early NIDDM nephropathy subjects, 1476  
 of Ecuadorian Amazon Shur women, 1356  
 and erythrocyte membrane lipid composition, 574  
 exercise effects on, *see* Body weight, exercise effects on  
 gain of, *see* Weight gain  
 of hyperinsulinemic subjects, *see* Body weight of hyperinsulinemic subjects  
 of IGT subjects, *see* Body weight of IGT subjects  
 and isotretinoin effects on insulin sensitivity and plasma TGs, 5  
 of Japanese subjects with beta-cell dysfunction, 950  
 of lipodystrophic subjects, leptin replacement therapy effects on, 515-516  
 loss of, *see* Weight loss  
 of NIDDM subjects, *see* Body weight of NIDDM subjects  
 NN414 and DZ effects on, compared, 442  
 NO-1886 effects on, 261  
 and plasma vitamin K transport, 216  
 of PM women, *see* Body weight of PM women  
 responsiveness of, to 11 $\beta$ -HSD inhibition by glycyrrhetic acid, 600-606  
 and risk for metabolic syndrome and, 1505  
 of smokers, *see* Body weight of smokers
- Body weight (BW) (*Continued*)  
 and WPG effects on normal or mildly elevated plasma cholesterol, 1311  
*see also* Non-obese subjects; Obesity; Overweight
- Body weight (BW), diet effects on  
 beer ingestion and sauna bathing effects on, 774  
 HF diet, *see* Body weight, HF diet effects on  
 high-fiber, low-fat diet and aerobic exercise effects in PM women on ERT and at risk for CAD, 378  
 high-sucrose diet effects, 23-24  
 restricted diet effects, 30  
*see also* Body weight, wine drinking and
- Body weight (BW), exercise effects on  
 apo E genotype and changes in serum lipids and  $\dot{V}O_{2max}$  and, 195, 198, 199  
 and OC effects on glucoregulatory responses to exercise, 350  
 and plasma nitrate/nitrite assessment during OGTT, 675  
 with  $\omega$ -3 PUFAs, 750, 1366  
*see also* Body weight of PM women, exercise effects on
- Body weight (BW), HF diet effects on  
 effects of LF versus HF diet and caloric intake, 455-456  
 and intracellular  $Ca^{2+}$  chelator effects on IR and spontaneous hypertension, 270, 271  
 reduced glucose transport in SM and, 913  
 and skeletal muscle, 1033
- Body weight (BW), wine drinking and  
 and acute effects of red wine drinking and food intake on vascular reactivity, 1082  
 red and white wine drinking effects on, in CAD men, 319
- Body weight (BW) of exercising PM women on ERT  
 or not on ERT, 1194  
 with risk for CAD, high-fiber, low-fat diet and aerobic exercise effects on, 378
- Body weight (BW) of hyperinsulinemic subjects  
 with hypertension, 1306  
 young men, whole-body protein synthesis and, 389
- Body weight (BW) of IGT subjects  
 IGT first-degree relatives of African American NIDDM subjects, 415, 417, 1553  
 non-obese subjects, 625
- Body weight (BW) of insulin-resistant subjects  
 and cilostazol effects on microalbuminuria, 1407  
 obese subjects with normal FPG or IGT, 1096, 1097
- Body weight (BW) of NIDDM subjects  
 and of at-risk for NIDDM subjects, water diuresis-induced changes in renal cortex oxygenation and endothelial function and, 224  
 insulin therapy effects on, 694, 695, 697  
 obese, *see* Body weight of obese NIDDM subjects
- Body weight (BW) of obese NIDDM subjects  
 bezafibrate effects on, 407  
 LF versus HF diet and caloric intake effects on, 455-456  
 women, effects of resistance exercise on glycemic control and, 285  
*see also* Body weight of obese women
- Body weight (BW) of obese subjects  
 insulin-resistant subjects with normal FPG or IGT, 1096, 1097  
 and preclinical changes in abdominal aorta of obese children, 1244  
*see also* Body weight of obese insulin-resistant subjects; Body weight of obese NIDDM subjects; Body weight of obese women
- Body weight (BW) of obese women  
 fluvastatin effects on, 735, 736

- Body weight (BW) of obese women (*Continued*)  
 with NIDDM, effects of resistance exercise on glycemic control and, 285  
 serum TNF soluble receptors, TNF- $\beta$ , and NO and, 1269
- Body weight (BW) of PM women  
 exercise and, *see* Body weight of PM women, exercise effects on  
 hypercholesterolemic women, simvastatin effects on BMD and, 745  
 obese women, fluvastatin effects on, 735, 736
- Body weight (BW) of PM women, exercise effects on  
 on abdominal AT, body composition and, in PM on or not on ERT, 1192-1196  
*see also* Body weight of exercising PM women on ERT
- Body weight (BW) of smokers  
 acute effects of nicotine and, 579  
 and smoking effects on intravascular remodeling of HDL particles, 860
- Bone loss, moderate exercise and soy isoflavone effects on AT accumulation and, in postmenopausal subjects, 942-948
- Bone matrix, strontium ranelate-induced mineralization of, in MC3T3-E1 osteogenic cells, 532-537
- Bone mineral content (BMC), changes in, after RYBG and ASGB for morbid obesity, 918-921
- Bone mineral density (BMD)  
 -1562C $\rightarrow$ T MMP-9 polymorphism associated with, in Japanese men, 135-137  
 in obesity, *see* Bone mineral density in obesity  
 in PM women, *see* Bone mineral density in PM women  
 in severe lipodystrophy, leptin replacement therapy effects on, 516-517
- Bone mineral density (BMD) in obesity  
 CL316,243 effects on, in polygenic obesity with NIDDM, 801  
 after RYBG and ASGB for morbid obesity, 920
- Bone mineral density (BMD) in PM women  
 effects of moderate exercise and soy isoflavone on, 945  
 in hypercholesterolemic PM women, simvastatin effects on, 744-748
- Bone mineralization  
 strontium ranelate-induced bone matrix, in MC3T3-E1 osteogenic cells, 532-537  
*see also* Bone mineral density
- Born small-for-gestational-age children, oral glucose metabolism and whole- body glucose oxidation in, 847-851
- BP, *see* Blood pressure
- Brain natriuretic peptide (BNP) in IR with LVH, candesartan effects on, 778-780
- Bread, PP TG response to, 622
- BUN (blood urea nitrogen)  
 in NIDDM nephropathy, pioglitazone effects on, 1383  
 in STZ-DM, effects of oral vanadate with tea extract on, 1148
- Butter, PP TG response to, 621, 622
- (+)-(s)-p-[1-(p-tert-Butylphenyl)-2-oxo-4-pyrrolidinyl] methoxybenzoic acid (S-2E), effects of PRV and, in mixed hyperlipidemia, compared, 680-685
- BW, *see* Body weight
- Bypass, Roux-en-Y, changes in BMC after ASGB and, for morbid obesity, 918-921
- C, *see* Cholesterol
- Ca, *see* Calcium
- Cachexia, melanoma-associated, ghrelin mRNA in, 84-88
- CAD, *see* Coronary artery disease
- Caffeine, effects of, on alveolar macrophages via its effects on synthesis of cAMP and prostaglandin, 687-692
- Calcium (Ca)  
 in adrenal insufficiency, 1252  
 serum, in severe lipodystrophy, leptin replacement therapy effects on, 516  
*see also* Eucalcemia and entries beginning with term: Calcium
- Calcium channel blockers (CCBs), effects of dihydropyridine, on microalbuminuric NIDDM, 354
- Calcium (Ca)-dependent rebaudioside A, effects on insulin secretion, 1378-1381
- Calcium<sup>2+</sup> (Ca<sup>2+</sup>), primary hyperthyroidism and, 1102
- Calcium<sup>2+</sup> (Ca<sup>2+</sup>) chelator, effects of intracellular, on IR and in spontaneous hypertension subjects on high-fat diet, 269-272
- Caloric intake  
 CV disease risk factors and, 1439  
 effects of leptin replacement therapy and, in severe lipodystrophy, 515  
 with obesity-inducing diet, 783  
 role of HF and/or LF diet and, in NIDDM and obesity development, 454-457  
 and UCP-3 polymorphism-body composition association, 461  
*see also* Diet
- cAMP (cyclic adenosine monophosphate)  
 effects of caffeine on alveolar macrophages via its effects on synthesis of prostaglandin and, 687-692  
 low temperature blocking testosterone production and stimulatory effects of hCG on steroidogenic acute regulatory protein mRNA but not on production of, in tumor cells, 955-958
- Candesartan, effects of, on LVH and IR, 777-781
- Carbohydrate(s) (CHO)  
 oxidation of, during exercise at cold temperature, 204, 205  
*see also* Carbohydrate intake and specific carbohydrates
- Carbohydrate (CHO) intake  
 insulin concentration and requirement in, by IDDM subjects during moderate exercise, 1126-1130  
 with obesity-inducing diet, 783  
 and plasma ADMA in mild hypercholesterolemia, 1073, 1074  
 PP TG response to, 620-623  
 by prematurely atherosclerotic normocholesterolemic and daytime hypertriglyceridemic subjects, 51  
 and risk for metabolic syndrome, 1505-1506, 1508  
 by Vietnamese children, apo E polymorphism and, 1519
- Carboxykinase, hepatic phosphoenolpyruvate, effects of exercise on hepatic insulin signaling and activity of, in diabetes-prone subjects, 836-841
- Carboxylase, acetyl-coenzyme A, upregulation of mRNA of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- $\beta$  (beta)-Carboxy terminal telopeptide of type 1 collagen in adrenal insufficiency, 1252
- Cardiac fibroblasts, high glucose and insulin effects on DNA and collagen synthesis in, 710-715
- Cardiac function in prediabetic subjects, 1391-1394
- Cardiac myocytes, high glucose and insulin effects on protein synthesis in, 710-715
- Cardiac protein, effects of galactosamine-induced liver disease and bile duct ligation on synthesis of, 964-968
- Cardiorespiratory fitness, contribution of visceral AT and, to hyperinsulinemia, dyslipidemia, and hypertension in IGT NIDDM subjects, 644-649
- Cardiovascular autonomic dysfunction, microalbuminuria, IR and, in NIDDM, 1359-1364
- Cardiovascular disease, *see* Risk factors for CV disease
- L-Carnitine, effects of, on fat oxidation, protein turnover, and body composition in slightly overweight subjects, 1001-1006



- Carotene, association between lifestyle, plasma CRPs, CV disease risk factors, and intake of, 1439
- Carotid artery(ies)  
effects of elevated plasma Hcy on endothelial function recovery after denudation of, 760-765  
*see also* Carotid artery intimal-media thickness; Carotid atherosclerosis
- Carotid artery intimal-media thickness (IMT)  
in NIDDM, associated of corrected QT intervals with, 1152-1157  
in NIDDM nephropathy, pioglitazone effects on arterial stiffness and, 1382-1386
- Carotid atherosclerosis, sdLDLs, vascular dementia and, 476-482
- Casein in obesity-inducing HF diet, 783
- Cataracts in STZ-DM, effects of oral vanadate with tea extract on, 1145-1151
- Catecholamines  
pramlintide effects on response of glucagon and, and symptoms of hypoglycemia, 1227-1232  
*see also* Epinephrine; Norepinephrine
- CBS (cystathionine- $\beta$ -synthase) deficiency, betaine effects on, 594-599
- CCBs (calcium channel blockers), effects of dihydropyridine, on microalbuminuric NIDDM, 354
- CD4<sup>+</sup> (and CD8<sup>+</sup>) T lymphocytes, activated, emergence of growth factor receptors in, 117-122
- CDCA, *see* Chenodeoxycholic acid
- Cell differentiation, adipocyte precursor, from omental and subcutaneous AT of obese subjects, compared, 632-637
- Cell proliferation  
adipocyte precursor, from omental and subcutaneous AT of obese subjects, compared, 632-637  
in head and neck squamous cell carcinoma, effects of cellular CRABP-1 mRNA on CYP2-mediated catabolism of A11-*trans* retinoic acid and, 1007-1012
- Cellular retinoic acid binding protein-1 (CRABP-1) mRNA (messenger ribonucleic acid), effects of, on CYP26-mediated catabolism of A11-*trans* retinoic acid and cell proliferation in head and neck squamous cell carcinoma, 1007-1012
- Cellulose in HF diet, 783, 1033
- Central hypothalamic-pituitary-adrenal axis (HPA), CRH test of relation between MS and dysregulation of, 720-726
- Central (luteinizing hormone) hypothesis of PCOS, 359-361
- Cerebral vascular disease in NIDDM, serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299
- Cerebrotendinous xanthomatosis (CTX), effectiveness of chenodeoxycholic acid, hydrophilic 7-hydroxy bile acids, lovastatin, and cholestyramine in, compared, 556-562
- Ceruloplasmin, plasma, and effects of Cu enzymes on CF before and after Cu supplementation with or without zinc, 37-41
- CETP, *see* Cholesteryl ester transfer protein
- CF, *see* Cystic fibrosis
- CHD, *see* Coronary heart disease
- Chemoattractant protein-1, *see* Monocyte chemoattractant protein-1
- Chenodeoxycholic acid (CDCA)  
effectiveness of hydrophilic 7 $\beta$ -hydroxy bile acids, lovastatin, and cholestyramine in CTX, compared, 556-562  
effects of, on 11 $\beta$ -hydroxysteroid dehydrogenase in various tissues, 811-816
- Children  
born small-for-gestational-age, oral glucose metabolism and whole-body glucose oxidation in, 847-851  
obese, preclinical changes in abdominal aorta of, 1243-1246  
*see also* Newborns; Race and ethnicity of children
- D-Chiro-inositol for obese PCOS women, 369-370
- Chloride, serum, beer ingestion and sauna bathing effects on urinary excretion of, 774
- CHO(s), *see* Carbohydrate(s)
- Cholestanol, plasma, in CTX, 558
- Cholesterol (C)  
blood, *see* Blood cholesterol  
in CAD men, as risk factor for myocardial infarction and, 325, 326  
CV disease risk factors and, 1438  
dietary, *see* Dietary cholesterol  
erythrocyte membrane, 574  
and glycemic control effects on F<sub>2</sub> isoprostane level at IDDM onset, 1119  
and GSK-3 $\beta$  in transgenic subjects, 1328  
in HD subjects, 1014  
in IR, serum GPI-PLD and, 139  
MHN-01 effects on concentration of, 981  
in NIDDM, *see* Cholesterol in NIDDM  
in obesity, adiponectin, CRP and, 1456, 1457  
plasma, *see* Plasma cholesterol  
 $\omega$ -3 PUFA and exercise effects on, 751  
serum, *see* Serum cholesterol  
smoking effects on, 860  
in soccer players, 1262-1267  
in STZ-DM, *see* Cholesterol in STZ-DM  
total, *see* Total cholesterol  
in young men with hypertensive parents, 470, 473  
*see also* Cholesterol acyltransferase; Cholesterol 7 $\alpha$ -hydroxylase; Cholesteryl ester transfer protein; High-density lipoprotein-cholesterol; Hypercholesterolemia; Intermediate-density lipoprotein-cholesterol; Low-density lipoprotein-cholesterol; Normocholesterolemia; Reverse cholesterol transport; Very-low-density lipoprotein-cholesterol
- Cholesterol (C) acyltransferase  
role of cholesterol absorption and activity of hepatic acyl-coenzyme A:, in lipemic response to HF/HC diet, 817-822  
*see also* Lecithin:cholesterol acyltransferase
- Cholesterol 7 $\alpha$ -hydroxylase (CYP7A1), effects of ileal bile transport inhibition on plasma C level through FXR inactivation and stimulation of, 927-932
- Cholesterol (C) in NIDDM  
with dyslipidemia, rosiglitazone effects on, 1123  
in obese subjects, adiponectin and C-reactive protein and, 1456, 1457  
PP, alcohol effects on, 78, 79
- Cholesterol (C) in STZ-DM  
effects of oral vanadate with tea extract on, 1148  
NO-1886 effects on, 261
- Cholesteryl ester transfer protein (CETP)  
plasma, smoking effects on concentration of, 858-862  
*see also* Cholesteryl ester transfer protein,  $\omega$ -3 PUFA effects on
- Cholesteryl ester transfer protein (CETP),  $\omega$ -3 PUFA effects on in FCHL, 155  
and on LDL and HDL subfractions, 752
- Cholestyramine, effectiveness of hydrophilic 7-hydroxy bile acids, lovastatin, and chenodeoxycholic acid in CTX, compared, 556-562
- Choline bitartrate in obesity-inducing HF diet, 783
- Choline in HF diet, 1033
- Cholinephosphotransferase (CHPT) mRNA (messenger ribonucleic acid), renal, in NIDDM, 842-846

- Chorionic gonadotropin, human, low temperature blocking stimulatory effects of, on steroidogenic acute regulatory protein mRNA and testosterone production but not on cAMP production in tumor cells, 955-958
- CHPT (cholinephosphotransferase) mRNA (messenger ribonucleic acid), renal, in NIDDM, 842-846
- Chronic disease, inflammatory markers in inflammation of, 899-903
- Chronic renal disease with obesity and MS, apo A-1, apo B-48, and apo B-100 metabolism in, 1255-1261
- Chronic renal failure (CRF)  
atorvastatin effects on lipids, LDLs, and CRPs in dyslipidemic CRF subjects on HD, 1113-1117  
upregulation of lipogenic enzyme and SREBP-1 mRNA in WAT of subjects with, 1060-1065
- Chylomicrons in IDDM, plasma apo C-3 polymorphisms and, 1299, 1301
- Cilostazol, effects of, on microalbuminuria in IR, 1405-1410
- Circadian rhythm  
of leptin after weight loss to reduce HF diet-induced obesity, leptin therapy to augment, 782-789  
of serum insulin concentration at low plasma glucose during fasting by lean and overweight subjects, 1449-1453
- Circulating adrenocorticotropin (ACTH; corticotropin), cortisol concentrations and, in normal appropriate-for-gestational-age newborns versus newborns with respiratory distress and sepsis, 209-214
- Circulating blood cells, effects of, on atherosclerosis in apo E-deficient subjects, 95-100
- Circulating cell adhesion molecules, and LDL susceptibility to oxidation in young Japanese subjects with NIDDM parents, 755-759
- Circulating inflammation-sensitive molecules in men with CAD, acute effects of red and white wine drinking on, 318-323
- Circulating leptin, as marker of fat mass in acute spinal cord injury, 989-994
- Cirrhosis  
DCA-induced hypolactatemia in, 1087-1094  
serum soluble TNF-R level associated with IR in, 922-926
- Citrate lyase, *see* Adenosine triphosphate-citrate lyase; Adenosine triphosphate-citrate lyase mRNA
- Citrulline, plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- CK (creatinine kinase) in dyslipidemic CRF subjects on HD, 1116
- CL (citrate lyase), role of adenosine triphosphate-, in platelet acetyl-CoA metabolism and function in DM, 66-72
- CL316,243, effects of, on development of diabetes, 799-808
- Clinical manifestations  
of PCOS in obese and non-obese women, 365-367  
*see also specific conditions*
- Coenzyme A, *see* Acetyl-coenzyme A; Acetyl-coenzyme A carboxylase mRNA; Hepatic acyl-coenzyme A:cholesterol acyltransferase
- Cold temperature, *see* Exercise at cold temperature, NEFA oxidation during
- Collagen  
high glucose and insulin effects on synthesis of, in cardiac fibroblasts, 710-715  
and SR effects on bone matrix mineralization in MC3T3-E1 osteogenic cells, 533
- Collagen (a<sub>1</sub>) IV, expression of renal, in IR, cilostazol effects on, 1405-1410
- Collagen type 1, aminoterminal propeptide in adrenal insufficiency, 1252
- Collard greens, deuterium-labeled, plasma vitamin K transport and intake of, by men, 215-221
- Collecting duct, inner medullary, ET effects on AVP<sub>2</sub> mRNA in, 1177-1183
- Combined hyperlipidemia, familial,  $\omega$ -3 PUFA effects on levels of plasma HDL<sub>2</sub>-C and paraoxonase in, 153-158
- Conscious subjects  
effects of hyperglycemia, glucagon, and epinephrine on renal glucose release in, 933-941  
portal venous hyperinsulinemia effects on gut glucose absorption in, 1290-1295
- Contraceptives, *see* Oral contraceptives
- Contractile protein, breakdown of skeletal muscle, [<sup>2</sup>H<sub>3</sub>]-3-methylhistidine estimation of, 1076-1080
- Copper (Cu), effects of micromolar concentrations of, on endothelium-dependent aorta relaxation in DM, 1315-1321
- Copper (Cu) enzymes, effects of, on CF before and after Cu supplementation with or without zinc, 37-41
- Cord blood platelets, relationship between intracellular magnesium of, and birth weight, 1544-1547
- Cornstarch in obesity-inducing HF diet, 783
- Coronary artery disease (CAD)  
effects of exercise and high-fiber, low-fat diet on inflammatory and adhesion molecules in PM women on ERT and at risk for, 377-381  
in men, *see* Coronary artery disease in men  
*see also* Atherosclerosis
- Coronary artery disease (CAD) in men, 318-329  
acute effects of red and white wine drinking on circulating inflammation-sensitive molecules in, 318-323  
risk factors for myocardial infarction as predictors of, 324-329  
serum HDL-C level effects on association between plasma oxidized LDLs and, 423-429
- Coronary flow in early DM, effects of C-peptide and insulin on, 335-339
- Coronary heart disease (CHD)  
high plasma HDL-C level in Spanish children, and low CHD mortality in Spain, 1045-1047  
low-grade inflammation and MS with, 852-857  
*see also* Coronary heart disease in NIDDM
- Coronary heart disease (CHD) in NIDDM  
with IGT, contribution of visceral AT and cardiorespiratory fitness to risk factors for, 644-649  
serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299
- Corrected QT intervals, association of carotid artery IMT with, in NIDDM, 1152-1157
- Cortex, *see* Renal cortex
- Corticosterone  
leptin effects on, in STZ-DM, 1560  
plasma, effects of 11 $\beta$ -HSD inhibition by glycyrrhetic acid on, 602, 604
- Corticotropin, *see* Adrenocorticotropin hormone
- Corticotropin-releasing hormone (CRH) test of relation between central HPA dysregulation, MS and, 720-726
- Cortisol (hydrocortisone)  
acute effects of nicotine on, 578-582  
adrenal androgens and, in PCOS, 361  
circulating ACTH and concentrations of, in normal appropriate-for-gestational-age newborns versus newborns with respiratory distress and sepsis and, 209-214  
in hypoglycemia, 895  
in IR, 722  
in men, *see* Cortisol in men

- Cortisol (hydrocortisone) (*Continued*)  
 plasma, in adrenocortical disorders, 89-94  
 response of, to exercise in nondiabetic and IDDM smokers, 1142
- Cortisol (hydrocortisone) in men  
 with hypogonadism, 1174-1176  
 obese men, NEFA effects on levels of, 892
- COX (cyclooxygenase), effects of inhibition of, on apo A-1  
 promoter activity in hepatoma cells, 174-181
- CP, *see* C-peptide
- C-peptide (CP)  
 in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1090  
 in DM, *see* C-peptide in DM  
 fasting, *see* Fasting C-peptide  
 in IGT first-degree relatives of obese African American NIDDM subjects, 415  
 and IR in liver cirrhosis, 923  
 in obese men, NEFA effects on levels of, 892
- C-peptide (CP) in DM  
 effects of insulin and, on coronary flow in early DM, 335-339  
*see also* C-peptide in NIDDM
- C-peptide (CP) in NIDDM  
 glyburide and nateglinide effects on NIDDM and, 1332  
 in older NIDDM men with partial androgen deficiency, 670
- CRABP-1 (cellular retinoic acid binding protein-1) mRNA  
 (messenger ribonucleic acid), effects of, on CYP26-mediated catabolism of A11-*trans* retinoic acid and cell proliferation in head and neck squamous cell carcinoma, 1007-1012
- C-reactive protein (CRP)  
 adiponectin and, *see* Adiponectin, CRP and  
 atorvastatin effects on lipids, LDLs and, in dyslipidemic CRF subjects on HD, 1113-1117  
 in CHD, 853, 854  
 effects of  $\omega$ -3 PUFAs alone or with *all-rac*  $\alpha$ -tocopherol on, 236-240  
 in hypothyroidism, *see* C-reactive protein in hypothyroidism  
 in inflammation of chronic disease, 901, 902  
 in NIDDM, *see* C-reactive protein in NIDDM  
 in non-obese men, and AT as predictor of fibrinogen level, 985, 986  
 in obesity, *see* C-reactive protein in obesity  
 plasma, association between lifestyle, cardiovascular risk factors and, 1436-1442  
 PP, OC effects on, 350, 351  
 serum, *see* Serum C-reactive protein
- C-reactive protein (CRP) in hypothyroidism  
 effects of T<sub>4</sub> therapy on endothelial function and, 279  
 subclinical hypothyroidism, CV disease risk factors and, 1513
- C-reactive protein (CRP) in NIDDM  
 and in at-risk NIDDM subjects, water diuresis-induced changes in renal cortex oxygenation and endothelial function and, 224, 226  
 and effects of insulin therapy of NIDDM on serum high-sensitivity, 693-699
- C-reactive protein (CRP) in obesity  
 obese children, 1244  
 obese women, effects of moderate weight loss and sibutramine or orlistat on, 432  
*see also* C-reactive protein in obesity, weight loss effects and
- C-reactive protein (CRP) in obesity, weight loss effects and effects of moderate weight loss and sibutramine or orlistat by obese women and, 432  
 weight loss effects on IR and insulin release in obese subjects with normal FPG or IGT, 1097
- Creatinine  
 and *ABCA1* gene expression-fasting glucose relationship in normoglycemic men, 19  
 beer ingestion and sauna bathing effects on, 773-774  
 in chronic renal disease, 1256  
 in disabled hospitalized older subjects, HHcy and, 1018  
 and IR, *see* Creatinine in IR  
 in NIDDM, *see* Creatinine in NIDDM  
 serum, *see* Serum creatinine  
 in severe lipodystrophy, leptin replacement therapy effects on, 516  
 and smoking-ADMA-obesity relationship, 1575, 1576  
 in STZ-DM, effects of oral vanadate with tea extract on, 1148  
 in subclinical hypothyroidism, 1513
- Creatinine in IR  
 with cardiovascular autonomic dysfunction, microalbuminuria, 1360, 1362  
 and cilostazol effects on microalbuminuria, 1407  
 with liver cirrhosis, 923
- Creatinine kinase (CK) in dyslipidemic CRF subjects on HD, 1116
- Creatinine in NIDDM  
 and at-risk subjects for NIDDM, water diuresis-induced changes in renal cortex oxygenation and endothelial function and, 226  
 with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360, 1362  
 effects of glycemic control of NIDDM on, 353-357
- CRF, *see* Chronic renal failure
- CRH (corticotropin-releasing hormone) test of relation between central HPA dysregulation and MS, 720-726
- CRP, *see* C-reactive protein
- CS-045, *see* Troglitazone
- CTX (cerebrotendinous xanthomatosis), effectiveness of chenodeoxycholic acid, hydrophilic 7 $\beta$ -hydroxy bile acids, lovastatin, and cholestyramine in, compared, 556-562
- Cu, *see* Copper; Copper enzymes
- Cyclic adenosine monophosphate, *see* cAMP
- Cyclooxygenase (COX), effects of inhibition of, on apo A-1  
 promoter activity in hepatoma cells, 174-181
- CYP7A1 (cholesterol 7-hydroxylase), effects of ileal bile transport inhibition on plasma C level through FXR inactivation and stimulation of, 927-932
- CYP17 genes, mutant, in 17( $\alpha$ )-hydroxylase/17,20-lyase deficiency, 1527-1531
- CYP26-mediated catabolism of A11-*trans* retinoic acid, CRABP-1 effects on cell proliferation in head and neck squamous cell carcinoma and, 1007-1012
- Cystathionine- $\beta$ -synthase (CBS) deficiency, betaine effects in, 594-599
- Cystic fibrosis (CF)  
 adult, effects of Cu enzymes in, before and after Cu supplementation with or without zinc, 37-41  
 with impaired glucose tolerance, insulin regulating kinetics of NEFAs in, 1467-1472
- L-Cystine in obesity-inducing HF diet, 783
- Daytime hypertriglyceridemia (HTG) in normocholesterolemic and prematurely atherosclerotic subjects and in their first-degree relatives, 49-53
- Daytime hypoglycemia, differences in counterregulation of nighttime and, 894-898
- DCA (dichloroacetate), hypolactatemia induced by, in cirrhotic and noncirrhotic subjects, 1087-1094
- D-CCBs (dihydropyridine calcium channel blockers) in NIDDM, effects of, on microalbuminuria, 354
- Deaminase, adenosine, interaction between ACP1 polymorphism and, in NIDDM, 995-1001

- Dehydroepiandrosteredione sulfate (DHEA-S)  
 in premenopausal women, plasma Lp and, 189, 190  
*see also* Dehydroepiandrosteredione sulfate in PM women
- Dehydroepiandrosteredione sulfate (DHEA-S) in PM women  
 in insulin-sensitive women, 508-509  
 plasma Lp and, 189, 190
- Dehydrogenase  
 lactate, glutamate, and pyruvate, DM effects on, 68  
*see also* Glucose-6-phosphate dehydrogenase mRNA; 6-Phosphogluconate-dehydrogenase mRNA *and entries*  
*beginning with terms:* 11 $\beta$ -Hydroxysteroid dehydrogenase
- Delayed vasorelaxation by troglitazone, 4AP effects on, 147-152
- Dementia, vascular, sdLDLs, carotid atherosclerosis and, 476-482
- Dense low-density lipoprotein, *see* Small-dense low-density lipoprotein
- Denudation of carotid arteries, effects of elevated plasma Hcy on endothelial function recovery after, 760-765
- Deoxyypyridinol, urinary excretion of, in severe lipodystrophy, leptin replacement therapy effects on, 516
- Deoxyribonucleic acid, *see* DNA synthesis in fibroblasts
- Deuterium-labeled collard greens, plasma vitamin K transport and intake of, by men, 215-221
- Dextrin  
 maltose, in obesity-inducing HF diet, 783  
 in MNH-01 formula, 978
- DHEA-S, *see* Dehydroepiandrosteredione sulfate
- Diabetes (maturity-onset hyperinsulinemia and hyperglycemia), CL316,243 effects on, in polygenic obesity, 799-808
- Diabetes mellitus (DM)  
 $\beta_3$ -ADR Trp64Arg polymorphism in Taiwanese women with gestational, 1136-1139  
 in CAD men, 424-426  
 early, effects of C-peptide and insulin on coronary flow in, 335-339  
 effects of exercise on hepatic insulin signaling and hepatic PEPCK activity in subjects prone to, 836-841  
 effects of micromolar copper concentrations on aorta endothelium-dependent relaxation in, 1315-1321  
 serum leptin, serum adiponectin, and serum soluble leptin receptor levels in Japanese subjects with, 880, 881  
 stability over time of GHb, glucose, and RBC survival in hematologically stable subjects without, 1399-1403  
*see also* Diabetes; Glycemic control of DM; Insulin-dependent diabetes mellitus; Non-insulin-dependent diabetes mellitus; Parental diabetes mellitus; Prediabetic subjects; Streptozotocin-induced diabetes mellitus *and entries*  
*beginning with term:* Diabetic
- Diabetic microangiopathies in NIDDM, serum PON1 polymorphism, plasma oxidized LDL level and, 300
- Diabetic nephropathy, *see* Non-insulin-dependent diabetes mellitus nephropathy
- Diabetic retinopathy, *see* Non-insulin-dependent diabetes mellitus retinopathy
- Dialysis, *see* Hemodialyzed subjects
- Diamine oxidase, plasma, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41
- Diastolic pressure, *see* Blood pressure
- Diazoxide (DZ), effects of NN414 and, on glucose tolerance and lipids in obesity, compared, 441-447
- Dichloroacetate (DCA), hypolactatemia induced by, in cirrhotic and noncirrhotic subjects, 1087-1094
- Diet  
 association between lifestyle, cardiovascular risk factors, plasma CRPs and, 1436-1442
- Diet (*Continued*)  
 composition of, as determinant of ADMA in mild hypercholesterolemia, 1072-1075; *see also specific food groups and dietary substances*  
*see also* Caloric intake; Drinking; Dysphagia; Energy intake; Fasting; Food intake; Total parenteral nutrition *and entries*  
*beginning with terms:* Dietary, Postprandial
- Dietary carbohydrates, *see* Carbohydrate intake
- Dietary cholesterol (C)  
 CV disease risk factors and, 1438  
 intake of, by prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia and by their first-degree relatives, 51  
 plasma 27-hydroxycholesterol and plasma 7 $\alpha$ -hydroxy-4-cholesten-3-one as markers for hepatic bile synthesis and, 42-48  
*see also* High-cholesterol diet
- Dietary fat  
 apo E polymorphism in Vietnamese children and intake of, 1519  
 L-carnitine effects on protein turnover, body composition and, in slightly overweight subjects, 1001-1006  
 CV disease risk factors and intake of, 1439  
 PPAR $\gamma$  Pro12Ala polymorphism effects on association of exercise and, with fasting insulin level, 11-16  
 uncoupling protein-3 polymorphism and intake of, 460, 461  
 WPG and, 1312  
*see also* Fatty acid(s); High-fat diet; Low-fat diet *and specific types of dietary fats*
- Dietary fiber, *see* Fiber
- Dietary oils, *see specific dietary oils*
- Dietary proline (Pro) with and without glucose, metabolic response to, 241-246
- Dietary protein intake  
 apo E polymorphism and, by Vietnamese children, 1519  
 effects of, on whole-body protein synthesis in hyperinsulinemic young men, 389  
 with HF diet, 783, 1033  
 in MNH-01 formula, 978  
 by normocholesterolemic prematurely atherosclerotic subjects with daytime hypertriglyceridemia and by their first-degree relatives, 51  
 plasma ADMA in mild hypercholesterolemia and, 1073  
 restricted, effects of, on proteasome production in skeletal muscle, 340-347
- Dietary restriction  
 effects of, on PPAR $\gamma$  and glucocorticoid receptor signaling in AT, 28-36  
 effects of protein, on proteasome production in skeletal muscle, 340-347  
 of zinc, effects of, on metabolic rate and substrate utilization, 727-732
- Differentiation, proliferation and, of adipocyte precursor cells from omental and subcutaneous AT of obese subjects, compared, 632-637
- Dihydropyridine calcium channel blockers (D-CCBs) in NIDDM, effects of, on microalbuminuria, 354
- 3,3'-Diiodothyronine sulfate (3,3'-T<sub>2</sub>S) in thyroidal diseases, nonthyroidal diseases, pregnancy, and fetal/neonatal life, 538-543
- Dimethylarginine, *see* Asymmetric dimethylarginine
- Dimethyl-BAPTA/AM [bis(*o*-aminophenoxy)ethane-N,N,N',N') tetraacetic acetoxymethyl ester], effects of, on IR and spontaneous hypertension, high-fat diet and, 269-272
- Dimethylbiguanide, *see* Metformin



- Dimethylsulfonylacetate (DMSA), effects of, in cystathionine- $\beta$ -synthase deficiency, 594-599
- Dipeptylpeptidase (DPP) IV, effects of Lys<sup>9</sup>-for-Glu<sup>9</sup> substitution in GLP-1(7-36) amide on resistance of, with cellular and metabolic actions similar to GLP-1(9-36) amide and exendin (9-39), 252-259
- Disabled older subjects, hospitalized, HHcy in, 1016-1020
- Dismutase, erythrocyte superoxide, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41
- Distress, respiratory, circulating ACTH and cortisol concentrations in normal appropriate-for-gestational-age newborns versus newborns with sepsis and, 209-214
- Diuresis, changes in renal cortex oxygenation and endothelial function induced by water in NIDDM and in at-risk for NIDDM subjects, 222-227
- DM, *see* Diabetes mellitus
- DMSA (dimethylsulfonylacetate), effects of, in cystathionine- $\beta$ -synthase deficiency, 594-599
- DNA (deoxyribonucleic acid) synthesis in fibroblasts in cardiac fibroblasts, high glucose and insulin effects on collagen, 710-715 and myocytes, 128-133
- Dose-dependent rebaudioside A, effects of, on insulin secretion, 1378-1381
- DPP (dipeptylpeptidase) IV, effects of Lys<sup>9</sup>-for-Glu<sup>9</sup> substitution in GLP-1(7-36) amide on resistance of, with cellular and metabolic actions similar to GLP-1(9-36) amide and exendin (9-39), 252-259
- Drinking effects of sauna bathing and beer, on plasma concentration of purine bases, 772-776 *see also* Alcohol intake; Wine drinking
- Dyslipidemia FPFs-410 effects on, 1532-1537 *see also* Dyslipidemia in NIDDM; Hypercholesterolemia; Hyperlipidemia; Hypertriglyceridemia
- Dyslipidemia in NIDDM with IGT, contribution of cardiorespiratory fitness and visceral AT to hyperinsulinemia, hypertension and, 644-649 rosiglitazone effects on insulin regulation in, 1121-1125
- Dysphagia, leptin effects on HPA axis activity, weight loss and, in STZ-DM, 1558-1564
- DZ (diazoxide), effects of NN414 and, on glucose tolerance and lipids in obesity, compared, 441-447
- E<sub>2</sub>, *see* Estradiol
- Early diabetes mellitus (DM), C-peptide and insulin effects on coronary flow in, 335-339
- Early non-insulin-dependent diabetes mellitus (NIDDM) nephropathy, pioglitazone effects on, 1473-1479
- Early-onset non-insulin-dependent diabetes mellitus (NIDDM), triple mutations of *HNF-4 $\alpha$*  gene associated with, in Filipino family, 959-963
- ECs (endothelial cells) in omental and subcutaneous AT in obese subjects, compared, 635
- Ecuadoran Amazon Shuar women, effects of agricultural versus traditional lifestyle on leptin in, 1355-1358
- EFA, *see* Essential fatty acids
- Elaidic acid, effects of, on Sp1-induced apo A-I promoter, 1344
- Elderly subjects, *see* Older subjects
- Endometrial cancer, risk for, in obese PCOS women, 366
- Endothelial cells (ECs) in omental and subcutaneous AT in obese subjects, compared, 635
- Endothelial function effects of elevated plasma Hcy on recovery of, after denudation of carotid arteries, 760-765 effects of thyroxine therapy of hypothyroidism on, 278-279 fluvastatin effects on, in obese PM women via sdLDL reduction, 733-739 water diuresis-induced changes in renal cortex oxygenation and, in NIDDM and in at-risk for NIDDM subjects, 222-227
- Endothelial growth factor, plasma vascular, relation between concentration of plasma VEGF, glycemic control and, in DM, 550-555
- Endothelial nitric oxide synthase (eNOS) in early NIDDM nephropathy, 1474
- Endothelin (ET) effects of, on AVP<sub>2</sub> mRNA in IMCD, 1177-1183 plasma, relation between concentration of plasma VEGF, glycemic control and, in DM, 550-555
- Endothelin-1 (ET-1) high glucose and insulin effects on expression of, in cardiac fibroblasts, 712 in NIDDM and in at-risk for NIDDM subjects, 224, 226
- Endothelium-dependent relaxation of aorta in DM, effects of micromolar copper concentrations on, 1315-1321
- Endurance exercise apo E genotype and changes in serum lipids and  $\dot{V}O_{2\max}$  during, 193-202 plasma nitrate/nitrite assessment during OGTT in sedentary subjects after, 673-679
- Energy expenditure in endurance training,  $\dot{V}O_{2\max}$  and, 195 *see also* Resting energy expenditure
- Energy intake with HF diet, 1033 by prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia and by their first-degree relatives, 51 by Vietnamese children, apo E polymorphism and, 1519 WPG and, 1312 *see also* Diet
- Energy substrate oxidation in IDDM, 655-659
- eNOS (endothelial nitric oxide synthase) in early NIDDM nephropathy, 1474
- Epidemiology of PCOS, 358-359
- Epinephrine (adrenaline) effects of glucagon, hyperglycemia and, on renal glucose release in conscious subjects, 933-941 effects of ionomycin and, on skeletal muscle IL-6 mRNA and protein release, compared, 1492-1495 nighttime and daytime differences in counterregulation of hypoglycemia and, 895 in obese men, NEFA effects on levels of, 892 plasma, leptin effects on, in STZ-DM, 1560
- ERT (estrogen replacement therapy), *see* Postmenopausal women on ERT, exercise effects in
- Erythrocyte(s) (red blood cell; RBC) stability over time of GHb, glucose, and survival of, in hematologically stable subjects without DM, 1399-1403 WPG effects on, 1312 *see also* Erythrocyte magnesium; Erythrocyte membrane, lipid composition of; Erythrocyte superoxide dismutase
- Erythrocyte (red blood cell; RBC) folate in subclinical hypothyroidism, 1513
- Erythrocyte (red blood cell; RBC) magnesium (Mg), levels of, and Mg metabolism, 660-665

- Erythrocyte (red blood cell; RBC) membrane, lipid composition of associated with arachidonic acid in men, insulin sensitivity and, 571-577  
 in NIDDM, HbA<sub>1c</sub> correlation with, 123-127
- Erythrocyte (red blood cell; RBC) superoxide dismutase (SOD), effects of Cu enzymes in CF before and after Cu supplementation with or without zinc, 37-41
- Essential fatty acids (EFA)  
 regulation of serum lipids deficient in, in short-gut subjects on lipid-containing total parenteral nutrition, 273-277  
*see also* Arachidonic acid; Linoleic acid;  $\gamma$ -Linoleic acid; 3n3  $\alpha$ -Linolenic acid
- Established preeclampsia, IR and inflammation in, 1433-1435
- Estradiol (E<sub>2</sub>)  
 carotid atherosclerosis, vascular dementia and, 477  
 in PM and premenopausal women, plasma Lp and, 189
- Estrogen  
 in PCOS, 361-362  
 and role of androgens in estrogen-deficient state, 187-192
- Estrogen receptor modulators, effects of selective, on GH secretion, 563-570
- Estrogen replacement therapy, *see* Postmenopausal women on ERT, exercise effects in
- Estrone in PM and premenopausal women, plasma Lp and, 189
- Estrous cycle, Lp during, 140-141
- ET, *see* Endothelin
- ET-1, *see* Endothelin-1
- Ethanol, *see* Alcohol
- Eucalcemia, serum PTH relation to vitamin D profile in, after parathyroidectomy for primary hyperthyroidism, 1101-1106
- Evening primrose oil (PO), effects of, on generation of inflammatory mediators and fatty acid composition in neutrophils, 59-65
- Exendin (9-39), effects of Lys<sup>9</sup>-for-Glu<sup>9</sup> substitution in GLP-1(7-36) amide on DPP IV resistance with cellular and metabolic actions similar to GLP-1(9-36) amide and, 252-259
- Exercise  
 at cold temperature, *see* Exercise at cold temperature, NEFA oxidation during  
 endurance, *see* Endurance exercise  
 moderate, *see* Moderate exercise  
 by nondiabetic and IDDM smokers, pituitary response to, 1140-1144  
 OC effects on glucoregulatory responses to, 348-352  
 $\dot{V}O_{2\max}$  during, *see*  $\dot{V}O_{2\max}$  during exercise  
*see also* Exercise, effects of; Physical activity
- Exercise, effects of  
 on cholesterol efflux in soccer players, 1262-1267  
 on glycogen synthase activity and GLUT<sub>4</sub> mRNA but not on insulin signaling in overweight nondiabetic and NIDDM subjects, 1233-1242  
 hypoxic, on hepatic 8-OHdG and GSH levels, 716-719  
 on inhibitory effects of NE on insulin secretion, 1424-1432  
 on PP lipemia after high-fat/high-cholesterol meal, 1021-1026  
 on risk for metabolic syndrome, 1505, 1508  
 of swimming exercise on hepatic glucose production in response to glucagon, 1027-1031  
*see also* Exercise, effects of diet and; Postmenopausal women on ERT, exercise effects in; Resistance exercise effects
- Exercise, effects of diet and  
 of dietary fat association with fasting insulin level and, Pro12Ala polymorphism of PPAR $\gamma$  on, 11-16  
 effects of soy isoflavone with, on AT accumulation and bone loss in postmenopausal subjects, 942-948
- Exercise, effects of diet and (*Continued*)  
 on hepatic insulin signaling and hepatic PEPCK activity in diabetes-prone subjects, 836-841  
 of high-fiber/low-fat diet and exercise, inflammatory and adhesion molecules in postmenopausal women on ERT and at-risk for CAD, 377-381  
 moderate exercise and soy isoflavone effects on AT accumulation and bone loss in PM subjects, 942-948; *see also* Postmenopausal women, effects of diet with exercise in; Postmenopausal women on ERT, exercise effects in  
 on PP lipemia after high-fat/high-cholesterol meal, 1021-1026  
 relationship between alcohol intake, adiposity and, on HDL-C levels, 700-709  
*see also* Exercise, effects of  $\omega$ -3 PUFAs with
- Exercise, effects of  $\omega$ -3 PUFAs with  
 on LDL and HDL subfractions, 749-754  
 on postprandial lipemia, 1365-1371
- Exercise at cold temperature, NEFA oxidation during acipimox-induced plasma NEFA oxidation, 1131-1136  
 and substrate oxidation, 203-208
- Exogenous insulin, *see* Insulin therapy
- Exposure, long-term, to *cis* and *trans* FAs, on insulin secretion and FA oxidation in INS-1 cells, 1158-1165
- F, *see* Fructose
- F<sub>2</sub> isoprostane, effects of glycemic control on level of, at IDDM onset, 1118-1120
- FA(s), *see* Fatty acid(s)
- FABP4 (fatty acid-binding protein-4) polymorphism, effects of interaction between PPAR $\gamma$ -activated receptor polymorphism and, on insulin sensitivity and body composition in men, 303-309
- Factor VII in young subjects with NIDDM parents, 756
- Familial combined hyperlipidemia (FCHL),  $\omega$ -3 PUFA effects on levels of plasma HDL<sub>2</sub>-C and paraoxonase in, 153-158
- Familial early-onset non-insulin-dependent diabetes mellitus (NIDDM), triple mutations of *HNF-4 $\alpha$*  gene in Filipino family, 959-963
- Familial hypercholesterolemia, effects of S-2E and PRV in, compared, 680-685
- Farnesoid X receptor (FXR), hepatic, effects of ileal bile transport inhibition on plasma C level through cholesterol 7 $\alpha$ -hydroxylase stimulation and inactivation of, 927-932
- FAS (fatty acid synthase) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- Fasting  
 by non-obese and overweight subjects, preservation of circadian rhythm of serum insulin concentration at low plasma glucose during, 1449-1453  
 pinealectomy effects on AT adaptability to, 500-506  
 in preeclampsia, 1434  
*see also* entries beginning with term: Fasting
- Fasting adiponectin in insulin-resistant obese women, effects of moderate weight loss on, 281
- Fasting blood glucose (FBG)  
 in adolescents, *see* Fasting blood glucose in adolescents  
 in GH-deficient subjects, rhGH therapy effects on, 741  
 in Korean women, AT distribution and, 1541  
 in Kuwaiti IDDM children, CV disease risk factors and, 640  
 in NIDDM, *see* Fasting blood glucose in NIDDM  
 in obesity, *see* Fasting blood glucose in obesity
- Fasting blood glucose (FBG) in adolescents  
 Kuwaiti IDDM adolescents, CV disease risk factors and, 640

- Fasting blood glucose (FBG) in adolescents (*Continued*)  
 postpubertal Asian Indian adolescents, 1338
- Fasting blood glucose (FBG) in NIDDM  
 with IGT, 646  
 in Japanese subjects with incipient nephropathy, 1224  
 in older men with partial androgen deficiency, 670
- Fasting blood glucose (FBG) in obesity  
 in Korean subjects, -3826A→G UCP-1 polymorphism effects on level of LDL-C and, 1057  
 in treatment-seeking obese subjects with IR, 436
- Fasting C-peptide (CP)  
 and effects of OCs on glucoregulatory responses to exercise, 350, 351  
 in GDM,  $\beta_3$ -ADR Trp64Arg polymorphism and, 1138  
 in IGT, *see* Fasting C-peptide in IGT  
 in non-obese subjects, *see* Fasting C-peptide in non-obese subjects  
 in older NIDDM men with partial androgen deficiency, 668  
 in overweight subjects, 1451
- Fasting C-peptide (CP) in IGT  
 of first-degree relatives of African American NIDDM subjects, 1553  
 in non-obese subjects, 625, 627, 628
- Fasting C-peptide (CP) in non-obese subjects  
 circadian rhythm of serum insulin concentration at low plasma glucose and, 1451  
 with IGT, 625, 627, 628
- Fasting C-reactive protein (CRP) in normal FPG, IGT, or IR, 1096, 1097
- Fasting gastric inhibitory polypeptide (GIP) in non-obese IGT subjects, 625
- Fasting glucose  
 adiponectin and, *see* Fasting glucose, adiponectin and  
 blood, *see* Fasting blood glucose  
 concentration of, associated with leukocyte *ABCA1* gene expression in normoglycemic men, 17-21  
 and erythrocyte membrane lipid composition, 574  
 exercise and, *see* Fasting glucose, exercise and  
 in GDM Taiwanese women with  $\beta_3$ -ADR Trp64Arg polymorphism, 1138  
 and glycemic control effects on  $F_2$  isoprostane level at IDDM onset, 1119  
 in IDDM, oxidation of glycated and nonglycated LDLs and, 970  
 in IGT first-degree relatives of African American NIDDM subjects, 1553  
 in IR, *see* Fasting glucose in IR  
 in LBW Pima Indians with normal glucose tolerance, 906  
 in lipodystrophic HIV-infected subjects, 1567  
 in NIDDM, *see* Fasting glucose in NIDDM  
 in non-obese subjects, *see* Fasting glucose in non-obese subjects  
 in obesity, *see* Fasting glucose in obesity  
 in PM women, *see* Fasting glucose in PM women  
 in young subjects, *see* Fasting glucose in young subjects
- Fasting glucose, adiponectin and  
 adiponectin levels and, 2  
 adiponectin regulation by NEFAs and, 791
- Fasting glucose, exercise and  
 exercise effects on, in overweight nondiabetic and NIDDM subjects, 1236  
 and OC effects on glucoregulatory responses to exercise, 350, 351  
 and plasma nitrate/nitrite in sedentary and exercising subjects, 675
- Fasting glucose in IR  
 central HPA dysfunction and, 722, 724  
*see also* Fasting glucose in IR with obesity
- Fasting glucose in NIDDM  
 Fasting glucose in NIDDM (*Continued*)  
 and in at-risk for NIDDM subjects, 226  
 exercise effects on, 1236  
 in non-obese insulin-resistant Korean subjects, BMI and, 143  
 with obesity, adiponectin, C-reactive protein and, 1456, 1457  
*see also* Fasting plasma glucose in NIDDM
- Fasting glucose in non-obese insulin-resistant subjects  
 non-obese insulin-resistant Korean subjects, BMI and, 143  
 prevalence of IR and associated CV disease risk factors NS, 498
- Fasting glucose in non-obese subjects  
 with IGT, 625  
 men, and AT as fibrinogen level predictor, 985, 986  
 premenopausal women, metabolic risk and, 1068-1070  
*see also* Fasting glucose in non-obese insulin-resistant subjects
- Fasting glucose in obese insulin-resistant subjects  
 in obese women, effects of moderate weight loss on, 281  
 prevalence of IR and associated CV disease risk factors and, 498
- Fasting glucose in obese women  
 insulin-resistant women, effects of moderate weight loss on, 281  
 insulin-sensitive women and, 508  
 plasma, *see* Fasting plasma glucose  
 PM women, fluvastatin effects on, 735, 736  
 in SCI men, MS and, 1373, 1374  
 in treatment-seeking subjects, 436
- Fasting glucose in obesity  
 in children, 1244  
 with NIDDM, adiponectin, C-reactive protein and, 1456, 1457  
*see also* Fasting glucose in obese insulin-resistant subjects; Fasting glucose in obese women
- Fasting glucose in PM women  
 fluvastatin effects on, 735, 736  
 obese PM women, fluvastatin effects on, 735, 736
- Fasting glucose in young men  
 Pro12Ala PPAR $\gamma$ 2 polymorphism, adiponectin and, in young Japanese men, 1549  
 serum adiponectin and, 590
- Fasting glucose in young subjects  
 with NIDDM parents, 756  
*see also* Fasting glucose in young men
- Fasting immunoreactive insulin (IRI), and effects of weight loss by obesity with normal FPG or IGT on IR and insulin release, 1096, 1097
- Fasting insulin  
 adiponectin and, *see* Fasting insulin, adiponectin and  
 and erythrocyte membrane lipid composition, 574  
 exercise and, *see* Fasting insulin, exercise and  
 in GDM,  $\beta_3$ -ADR Trp64Arg polymorphism and, 1138  
 in GH-deficient subjects, rhGH therapy effects on, 741  
 in IGT first-degree relatives of African American NIDDM subjects, 1553  
 immunoreactive, and effects of weight loss by obese subjects with normal FPG or IGT on IR and insulin release, 1096-1097  
 insulin sensitivity and, *see* Fasting insulin, insulin sensitivity and  
 in IR, *see* Fasting insulin in IR  
 in LBW Pima Indians with normal glucose tolerance, 906  
 in lipodystrophic HIV-infected subjects, 1567  
 in MS, *see* Fasting insulin in MS  
 in NIDDM, *see* Fasting insulin in NIDDM  
 in non-obese subjects, *see* Fasting insulin in non-obese subjects  
 in obesity, *see* Fasting insulin in obesity  
 plasma, *see* Fasting plasma insulin  
 in PM women, *see* Fasting insulin in PM women  
 in postpubertal Asian Indian adolescents, 1338  
 in young subjects, *see* Fasting insulin in young subjects

- Fasting insulin, adiponectin and  
adiponectin levels and, 2  
adiponectin regulation by NEFAs and, 791
- Fasting insulin, exercise and  
and OC effects on glucoregulatory responses to exercise, 350, 351  
and plasma nitrate/nitrite in sedentary and exercising subjects, 675  
PPAR $\gamma$  polymorphism effects on dietary fat-physical activity  
association with fasting insulin level, 11-16
- Fasting insulin, insulin sensitivity and  
estimates of insulin sensitivity, 1109  
and relationship between BMI, IR, and beta-cell function, 1463
- Fasting insulin in IR  
and associated CV disease risk factors in overweight subjects, 498  
and relationship between obesity, IR, and beta-cell function, 1463  
*see also* Fasting insulin in non-obese insulin-resistant subjects
- Fasting insulin in MS, 312  
in SCI men, 1373, 1374
- Fasting insulin in NIDDM  
exercise effects on, 1236  
with IGT, 646  
in non-obese insulin-resistant NIDDM Korean subjects, BMI and, 142  
in older men with partial androgen deficiency, 668
- Fasting insulin in non-obese insulin-resistant subjects  
in insulin-resistant NIDDM Korean subjects, BMI and, 142  
and prevalence of IR and associated CV disease risk factors, 498
- Fasting insulin in non-obese subjects  
with IGT, 625  
insulin-resistant NIDDM Korean subjects, BMI and, 142  
non-obese men, and AT as fibrinogen level predictor in, 985, 986
- Fasting insulin in obesity  
in children, 1244  
in PM women, fluvastatin effects on, 735, 736  
prevalence of IR and associated CV disease risk factors and, 498
- Fasting insulin in PM women  
insulin sensitivity and, 508, 509  
obese PM women, fluvastatin effects on, 735, 736
- Fasting insulin in young subjects  
with NIDDM parents, 756  
Pro12Ala PPAR $\gamma$ 2 polymorphism, adiponectin and, in young  
Japanese men, 1549  
serum adiponectin and, in young men, 590
- Fasting leptin, effects of weight loss by obese subjects with normal  
FPG or IGT on, 1097
- Fasting nonesterified fatty acids (NEFAs; free fatty acids), serum, in  
obese NIDDM subjects, bezafibrate effects on, 407-408
- Fasting plasma glucose (FPG)  
carotid atherosclerosis, vascular dementia and, 477  
in IR, *see* Fasting plasma glucose in IR  
in Japanese subjects with beta-cell dysfunction, 950-952  
in NIDDM, *see* Fasting plasma glucose in NIDDM  
in obesity, *see* Fasting plasma glucose in obesity  
stevioside effects on, 102
- Fasting plasma glucose (FPG) in IR  
in Japanese subjects, 651, 652  
with LVH, candesartan effects on, 779
- Fasting plasma glucose (FPG) in NIDDM  
and association of corrected QT intervals with carotid artery IMT, 1153  
and in at-risk subjects for NIDDM, 224  
glyburide and nateglinide effects and, 1332  
insulin therapy effects on, 694, 697, 698  
metformin effects on, 160, 161  
microalbuminuria and, 354
- Fasting plasma glucose (FPG) in NIDDM (*Continued*)  
with obesity, pioglitazone effects on, 489-490  
in older men with partial androgen deficiency, 668  
Pancreas Tonic effects on, 1169  
with retinopathy, 583-588
- Fasting plasma glucose (FPG) in obesity  
with NIDDM, pioglitazone effects on, 489-490  
normal, effects of weight loss on insulin release and IR in subjects  
with IGT or, 1095-1100  
obese adolescents, 864, 865
- Fasting plasma insulin (FPI)  
in NIDDM with obesity, pioglitazone effects on, 489-490  
stevioside effects on, 102
- Fasting plasma nitrate/nitrite (NO $_x$ ), OGTT assessment of, in  
sedentary and exercising subjects, 675
- Fasting plasminogen activator inhibitor-1 (PAI-1), effects of weight  
loss by obese subjects with normal FPG or IGT on, 1097
- Fasting serum nonesterified fatty acids (NEFAs) in obese NIDDM  
subjects, bezafibrate effects on, 407-408
- Fasting triglycerides (TGs)  
and adiponectin regulation by NEFAs, 791  
plasma, pioglitazone effects on, 489-490  
*see also* Fasting triglycerides in NIDDM
- Fasting triglycerides (TGs) in Japanese NIDDM subjects  
incipient NIDDM, 1224  
insulin secretion, insulin resistance and, 832
- Fasting triglycerides (TGs) in NIDDM  
Pancreas Tonic effects on, 1169  
*see also* Fasting triglycerides in Japanese NIDDM subjects;  
Fasting triglycerides in obese NIDDM subjects
- Fasting triglycerides (TGs) in obese NIDDM subjects  
bezafibrate effects on, 407-408  
plasma, pioglitazone effects on, 489-490
- Fat-free mass (FFM)  
in acute SCI subjects, 990, 991  
in Ecuadoran Amazon Shur women, 1356  
effects of interaction between FABP-4 and PPAR $\gamma$ -activated  
receptor polymorphism on, in men, 304  
food intake-uncoupling protein-3 polymorphism association and, 460  
of hyperinsulinemic young men, whole-body protein synthesis  
and, 389  
in IGT first-degree relatives of obese African American NIDDM  
subjects, 415, 417  
of LBW Pima Indians with normal glucose tolerance, 906  
in NIDDM, *see* Fat-free mass in NIDDM  
in obesity, *see* Fat-free mass in obesity  
in older hypertensive subjects, resistance exercise effects on  
insulin-mediated glucose disposal and, 399  
and overweight women, serum TNF soluble receptors, TNF- $\beta$ , and  
NO and, 1269  
in severe lipodystrophy, leptin replacement therapy effects on, 516
- Fat-free mass (FFM) in NIDDM  
Pancreas Tonic effects on, 1169  
with polygenic obesity, CL316,243 effects on, 801-802
- Fat-free mass (FFM) in obesity  
in insulin-resistant Japanese subjects, 651  
in Korean subjects, -3826A $\square$ G UCP-1 polymorphism and, 1056  
polygenic obesity, CL316,243 effects on, 801-802  
after RYBG and ASGB for morbid obesity, 920
- Fat mass (FM)  
circulating leptin as marker of, in acute spinal cord injury, 989-994  
in Ecuadoran Amazon Shur women, 1356



- Fat mass (FM) (*Continued*)  
 effects of interaction between FABP-4 and PPAR $\gamma$ -activated receptor polymorphism on, 304  
 and food intake-uncoupling protein-3 polymorphism association with body composition, 460  
 in IDDM, and insulin concentration and CHO requirement during moderate exercise, 1127  
 in IGT first-degree relatives of obese African American NIDDM subjects, 415, 417  
 of LBW Pima Indians with normal glucose tolerance, 906  
 in lipodystrophy, *see* Fat mass in lipodystrophy  
 in MS subjects, 312, 313, 315  
 in NIDDM, *see* Fat mass in NIDDM  
 in obesity, *see* Fat mass in obesity  
 resistance exercise and, *see* Fat mass, resistance exercise effects on  
*see also* Adipose tissue
- Fat mass (FM) in lipodystrophy  
 in severe lipodystrophy, leptin replacement therapy effects on, 516  
 total, in lipodystrophic HIV-infected subjects, 1567
- Fat mass (FM), resistance exercise effects on  
 in NIDDM women, 284-289  
 in older hypertensive subjects, 399
- Fat mass (FM) in lipodystrophy  
 in severe lipodystrophy, leptin replacement therapy effects on, 516  
 total, in lipodystrophic HIV-infected subjects, 1567
- Fat mass (FM) in NIDDM  
 Pancreas Tonic effects on, 1169  
 in women, 284-289
- Fat mass (FM) in obesity  
 in insulin-resistant Japanese subjects, 651  
 in Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C and, 1056, 1058  
 in morbid obesity after RYBG and ASGB, 920  
 in NIDDM with polygenic obesity, CL316,243 effects on, 801-802
- FATP-1 (fatty acid transporter protein-1), fiber type- and FA composition-dependent effects of HF diet on content of TAG and, in skeletal muscle, 1032-1036
- Fatty acid(s) (FAs)  
 effects of long-term exposure of INS cells to *cis* and *trans* FAs on oxidation of, 1158-1165  
 serum PP, in NIDDM, alcohol effects on, 79-80  
 VAT accumulation and TG content of, associated with MS components, 310-317  
*see also* Fatty acid-binding protein-4; Fatty acid composition  
*cis* Fatty acid(s), effects of long-term exposure of INS-1 cells to *trans* and, on insulin secretion and oxidation of, 1158-1165  
*trans* Fatty acid(s), effects of, long-term exposure of INS-1 cells to *cis* and, on insulin secretion and oxidation of, 1158-1165
- Fatty acid-binding protein-4 (FABP4), effects of interaction between PPAR $\gamma$ -activated receptor polymorphism and polymorphism of, on insulin sensitivity and body composition in men, 303-309
- Fatty acid (FA) composition  
 fiber type- and FA composition-dependent effects of HF diet on skeletal muscle TAG and FATP-1 content, 1032-1036  
 neutrophil, dietary oil effects on, 59-65  
*see also* Essential fatty acids; Monounsaturated fatty acids; Nonesterified fatty acids; Polyunsaturated fatty acids; Saturated fatty acid(s)
- Fatty acid synthase (FAS) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- Fatty acid transporter protein-1 (FATP-1), fiber type- and FA composition-dependent effects of HF diet on content of TAG and, in skeletal muscle, 1032-1036
- Fatty liver in STZ-DM due to high-fat diet, NO-1886 effects on, 260-263
- FBG, *see* Fasting blood glucose
- FBPase (fructose-1,6-biphosphatase), *P yoelli* GPI effects on, in STZ-DM with obesity, 1050
- FCHL (familial combined hyperlipidemia),  $\square$ -3 PUFA effects on levels of plasma HDL<sub>2</sub>-C and paraoxonase in, 153-158
- Fenofibrate, effects of  
 on HF diet-induced weight gain and white adipose tissue in ovariectomized subjects, 1284-1289  
 on obesity and hypertriglyceridemia in LDL-receptor null subjects, 607-613
- Fetal life/neonatal life, 3,3'-T<sub>2</sub>S in, 538-543
- FFAs (free fatty acids), *see* Nonesterified fatty acids
- FFM, *see* Fat-free mass
- Fiber  
 CV disease risk factors and intake of, 1439  
 effects of exercise and high-fiber, low-fat diet on inflammatory and adhesion molecules in PM women on ERT and at risk for CAD, 377-381  
 FA composition- and fiber type-dependent effects of HF diet on skeletal muscle TAG and FATP-1 content, 1032-1036
- Fibrinogen  
 adipose tissue in non-obese men and level of, 984-988  
 in CHD, IR and, 853, 854  
 in inflammation of chronic disease, 901, 902  
 insulin therapy effects on, 694, 697  
 plasma, in IDDM, and oxidation of glycated and nonglycated LDLs, 970  
 and smoking effects on intravascular remodeling of LDL particles, 860  
 in young subjects with NIDDM parents, 756
- Fibroblasts, *see* DNA synthesis in fibroblasts
- Fibronectin mRNA (messenger ribonucleic acid)  
 in cardiac fibroblasts, effects of high glucose and insulin on, 712  
 renal, in IR, cilostazol effects on, 1405-1410
- Fibrosis, *see* Cystic fibrosis
- 1562C $\rightarrow$ T polymorphism of MMP-9 associated with BMD in Japanese men, 135-137
- Filipino family, triple *HNF-4 $\alpha$*  gene mutations associated with early-onset NIDDM in, 959-963
- First-degree relatives  
 of normocholesterolemic and daytime hypertriglyceridemic subjects with premature atherosclerosis, 49-53  
*see also* First-degree relatives, IGT, of African American NIDDM subjects
- First-degree relatives, IGT, of African American NIDDM subjects  
 effects of rosiglitazone on insulin sensitivity, insulin secretion, and plasma adiponectin, 1552-1557  
 GITS prevention of NIDDM in relatives of obese African American NIDDM subjects, 414-422
- Fish oil (FO)  
 effects, on generation of inflammatory mediators and fatty acid composition in neutrophils, 59-65  
*see also*  $\omega$ -3 Polyunsaturated fatty acids
- Fitness  
 cardiorespiratory, contribution of visceral AT and, to hyperinsulinemia, dyslipidemia, and hypertension in NIDDM with IGT, 644-649  
*see also* Exercise
- FIZZ3, *see* Resistin

- Flutamine for PCOS in obese women, 370
- Fluvastatin, effects of, on endothelial function in obese postmenopausal women via sdLDL reduction, 733-739
- FM, *see* Fat mass
- FO, *see* Fish oil
- Folate
- in disabled hospitalized older subjects, HHcy and, 1018
  - erythrocyte, in subclinical hypothyroidism, 1513
- Follicle-stimulating hormone (FSH) in PM and premenopausal women, plasma Lp and, 189
- Food intake
- correlation between AT, serum leptin and, during six-month period following kidney transplantation, 614-619
  - lack of acute effects of red wine drinking and, on vascular reactivity, 1081-1086
  - obesity and, *see* Food intake, and obesity
  - see also* Diet
- Food intake, and obesity
- in NIDDM subjects, bezafibrate effects on lipids and glucose metabolism and, 407
  - and NN414 and DZ effects on glucose tolerance in obesity, 442
- FPFS-410, antidiabetic and adipogenic properties of, 1532-1537
- FPG, *see* Fasting plasma glucose
- FPI, *see* Fasting plasma insulin
- Free fatty acids, *see* Nonesterified fatty acids
- Free testosterone
- in older NIDDM men with partial androgen deficiency, 668
  - in PCOS, 366
  - in PM women, insulin sensitivity and, 508, 509
- Free thyroxine ( $T_4$ ) in subclinical hypothyroidism, CV disease risk factors and, 1513
- Free triiodothyronine ( $T_3$ ) in subclinical hypothyroidism, CV disease risk factors and, 1513
- Frequently sampled intravenous glucose tolerance test (FSIVGTT) and insulin resistance indices, 1522-1526
- NEFA multiphasic profile unresponsive to exogenous insulin during, 1202-1207
  - population and individual minimal modeling of, 1349-1354
- Fresh blood samples, analysis of  $HbA_{1c}$  in, 1497, 1498
- Frozen blood samples kept at  $-80^\circ\text{C}$ , analysis of  $HbA_{1c}$  in, 1496-1499
- Fructosamine
- effects of ATPCL inhibitors on, 68
  - in older NIDDM men with partial androgen deficiency, 668, 670
- Fructose (F), postprandial plasma, in NIDDM retinopathy, 583-588
- Fructose-1,6-bisphosphatase (FBPase), *P. yoelli* GPI effects on, in STZ-DM with obesity, 1050
- Fruit, PP TG response to, 622
- FSH (follicle-stimulating hormone) in PM and premenopausal women, plasma Lp and, 189
- FSIVGTT, *see* Frequently sampled intravenous glucose tolerance test
- FXR (farnesoid X receptor), hepatic, effects of ileal bile transport inhibition on plasma C level through cholesterol  $7\alpha$ -hydroxylase stimulation and inactivation of, 927-932
- Galactosamine, effects of liver disease induced by bile duct ligation and, on cardiac protein synthesis, 964-968
- Gamma ( $\gamma$ )-linoleic acid in MS, 312
- Gastric banding, adjustable silicone, changes in BMC after RYBG and, for morbid obesity, 918-921
- Gastric inhibitory polypeptide (GIP)
- insulin secretion, GLP-1 and, after glucose ingestion in IGT, 624-631
  - PP, in NIDDM, stevioside effects on, 75
- GDH (glutamate dehydrogenase), DM effects on, 68
- GDM (gestational diabetes mellitus),  $\beta_3$ -ADR Trp64Arg polymorphism and, in Taiwanese women, 1136-1139
- Gender, *see* Sex
- Gene expression, *see* mRNA
- Genetic variations, *see* Polymorphism
- Genetics
- of PCOS, 358-359
  - see also* DNA synthesis in fibroblasts; First-degree relatives; Genotype; mRNA; Mutations; Parent(s); Polymorphism
  - entries beginning with terms:* Familial, Polygenic, Transgenic
  - specific genes and conditions*
- Genotype, apo E, changes in serum lipids and  $\dot{V}O_{2\max}$  in endurance exercise and, 193-202
- Geriatric subjects, *see* Older subjects
- Gestational age
- birth weight and, 1545
  - circulating ACTH and cortisol concentrations in normal appropriate-for-gestational-age newborns versus newborns with respiratory distress and sepsis, 209-214
  - whole-body glucose oxidation and oral glucose metabolism in born small-for-gestational-age children, 847-851
- Gestational diabetes mellitus (GDM),  $\beta_3$ -ADR Trp64Arg polymorphism and, in Taiwanese women, 1136-1139
- GF (growth factor) receptors, emergence of, in activated  $CD4^+$  and  $CD8^+$  T lymphocytes, 117-122
- GFR (glomerular filtration rate) in chronic renal disease, 1256
- GH, *see* Growth hormone
- GHb (glycohemoglobin), stability over time of glucose, RBC survival and, in hematologically stable subjects without DM, 1399-1403
- GHBP (growth hormone-binding protein) in lipodystrophic HIV-infected subjects, 1565-1563
- Ghrelin mRNA (messenger ribonucleic acid) in melanoma-associated cachexia, 84-88
- GIP, *see* Gastric inhibitory polypeptide
- GITS (glipizide gastrointestinal therapeutic system), prevention of NIDDM in IGT first-degree relatives of obese African American NIDDM subjects with, 414-422
- Glargine (insulin analogue), action of, on protein and lipid metabolism, 1037-1044
- Glc, *see* Glucagon
- Gliclazide in NIDDM, effects of, on microalbuminuria, 353-357
- Glipizide gastrointestinal therapeutic system (GITS), prevention of NIDDM in IGT first-degree relatives of obese African American NIDDM subjects with, 414-422
- Gln, *see* Glutamine
- Glomerular filtration rate (GFR) in chronic renal disease, 1256
- GLP-1, *see* Glucagon
- Glu, *see* Glutamic acid
- Glucagon (Glc; hyperglycemic-glycogenolytic factor)
- in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1090
  - effects of epinephrine, hyperglycemia and, on renal glucose release in conscious subjects, 933-941
  - effects of swimming on hepatic glucose production in response to, 1027-1031
  - in obese men, NEFA effects on levels of, 892
  - PP, in NIDDM, stevioside effects on, 75
  - short-term effects of NEFAs on secretion of, at low-to-normal glucose concentrations, 1443-1448
  - see also entries beginning with term:* Glucagon-like peptide-1
- Glucagon (Glc; hyperglycemic-glycogenolytic factor) in hypoglycemia

- Glucagon (Glc; hyperglycemic-glycogenolytic factor) in hypoglycemia (*Continued*)  
 and nighttime and daytime differences in counterregulation of hypoglycemia, 895  
 pramlintide effects on response of hypoglycemic symptoms to, 1227-1232
- Glucagon-like peptide-1 (GLP-1)  
 insulin secretion, glucose-dependent insulinotropic polypeptide and, after glucose ingestion in IGT, 624-631  
 PP, in NIDDM, stevioside effects on, 75
- Glucagon-like peptide-1(7-36) [GLP-1(7,36)] amide, effects of Lys<sup>9</sup>-for-Glu<sup>9</sup> substitution in, on DPP IV resistance with cellular and metabolic actions similar to GLP-1(9-36) amide and exendin (9-39), 252-259
- Glucagon-like peptide-1(9-36) [GLP-1[(9,36)] amide, effects of Lys<sup>9</sup>-for- Glu<sup>9</sup> substitution in GLP-1(7-36) amide on DPP IV resistance with cellular and metabolic actions similar to exendin (9-39) and, 252-259
- Glucocorticoid receptor (GR)  
 leptin effects on mRNA of, in STZ-DM, 1560-1561  
 signaling by, in AT, restricted diet effects on, 28-36
- Glucoregulatory responses to exercise, effects of OCs on, 348-352
- Glucosamine, effects of, on apo A-1 stabilization and expression in HepG2 cells, 766-771
- Glucose  
 blood, *see* Blood glucose  
 diet and, *see* Glucose, diet and  
 differential effects of alcohol and, on ROS generation and intranuclear nuclear factor- $\kappa$ B in mononuclear cells, 330-334  
 effects of different levels of, on arginase activity and NO production in renal cortex, 868-874  
 effects of high insulin and, on protein synthesis in cardiac myocytes and DNA and collagen synthesis in cardiac fibroblasts, 710-715  
 in exercise, *see* Glucose in exercise  
 fasting, *see* Fasting glucose  
 glargine effects on, 1038  
 and glycoprotein PC-1 K121Q polymorphism associated with race but not IR in children, 466, 467  
 in hypercholesterolemia, serum LPL concentration and, 528  
 isotretinoin effects on, 7, 8  
 leptin levels and, 1412-1414  
 and leucine turnover in third trimester of uncomplicated pregnancy, 547  
 in overweight women, serum TNF soluble receptors, TNF- $\beta$ , and NO and, 1269  
 plasma, *see* Plasma glucose  
 in PM and premenopausal women, sex steroids and plasma Lps and, 189  
 postprandial, *see* Postprandial glucose  
 proline ingestion with and without, 241-246  
 rebaudioside A effects on insulin secretion dependent on, 1378-1381  
 and relation of intracellular cord blood platelet magnesium to birth weight, 1545  
 and relationship between leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, HOMA IR index, serum soluble leptin receptor, serum leptin, serum adiponectin, and lipids, in Japanese subjects, 881-883  
 serum, *see* Serum glucose  
 short-term effects of NEFAs on secretion of glucagon at low-to-normal concentrations of, 1443-1448  
 stability over time of GHb, RBC survival and, in hematologically stable subjects without DM, 1399-1403
- Glucose (*Continued*)  
 whole-body, and glucose metabolism in born small-for-gestational-age children, 847-851  
*see also* Glucose, diet and; Glucose, smoking effects on; Glucose-dependent insulinotropic polypeptide; Glucose in hyperinsulinemia; Glucose in IR; Glucose in obesity; Glucose-6-phosphatase; Glucose-6-phosphate dehydrogenase; Glucose-stimulated insulin secretion; Glucose tolerance; Glucose transport in SM; GLUT<sub>4</sub> in IR; Insulin-dependent diabetes mellitus; Non-insulin-dependent diabetes mellitus; Streptozotocin-induced diabetes mellitus *and entries beginning with prefixes:* Gluc-, Glyc-
- Glucose, diet and  
 and CV disease risk factors, 1437, 1438  
*see also* Glucose, HF diet effects on
- Glucose, HF diet effects on  
 HF diet effects on, 1034  
 and insulin-nonspecific reduction of glucose transport in SM, 912-917
- Glucose, smoking effects on  
 and smoking-ADMA-obesity relationship, 1575, 1576  
 and smoking effects on intravascular HDL particle remodeling, 860
- Glucose control, *see* Glycemic control of DM
- Glucose-dependent insulinotropic polypeptide, alcohol effects on, in NIDDM, 77-83
- Glucose in exercise  
 and acipimox-induced reduction of plasma NEFAs during exercise at cold temperature, 1133  
 in exercising PM women on or not on ERT, 1194  
 hepatic production of, in response to glucagon, effects of swimming on, 1027-1031  
 resistance exercise effects on TNF- $\alpha$  and insulin-mediated glucose disposal in older hypertensive subjects, 397-402
- Glucose-glutamine (Gln) cycle during hypoglycemia and normoglycemic hyperinsulinemia, 1208-1214
- Glucose in hyperinsulinemia  
 portal venous hyperinsulinemia effects on gut absorption of, in conscious subjects, 1290-1295  
*see also* Plasma glucose in hyperinsulinemia
- Glucose intolerance  
 development of, in male transgenic subjects with GSK-3 $\beta$  overexpression in skeletal muscle, 1322-1330  
*see also* Glucose tolerance
- Glucose in IR  
 IR measures and, 1524  
 with liver cirrhosis, 923  
 plasma NEFA regulation and, 1198  
 serum GPI-PLD and, 139
- Glucose in obesity  
 and smoking-ADMA-relationship, 1575  
 in women, serum TNF soluble receptors, TNF- $\beta$ , and NO and, 1269
- Glucose-6-phosphatase (G6Pase), effects of exercise on activity of hepatic, in diabetes-prone subjects, 836-841
- Glucose-6-phosphate dehydrogenase (G6PD) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- Glucose-stimulated insulin secretion, LSF effects on, in STZ-DM, prediabetic, and nondiabetic subjects, 290-296
- Glucose tolerance  
 HF diet effects on, 1034  
 insulin secretion and insulin sensitivity at different stages of, in Japanese NIDDM subjects, 831-835

Glucose tolerance (*Continued*)

- LBW Pima Indians with normal, insulin secretion, insulin sensitivity in, 904-911
- in obesity, effects of NN414 and DZ on lipids and, compared, 441-447
- see also* Frequently sampled intravenous glucose tolerance test; Impaired glucose tolerance; Normal glucose tolerance, insulin release and secretion in; Oral glucose tolerance test

## Glucose transport in SM

- HF diet and insulin-nonspecific reduction in, 912-917
- of insulin-sensitive and insulin-resistant subjects, stevioside effects on, 101-107

GLUT<sub>4</sub> in IR

- adipocyte, hypertension and, 382-387
- after 1-day hindlimb suspension, 1217

GLUT<sub>4</sub> mRNA (messenger ribonucleic acid), exercise effects on

- glycogen synthase activity and, but not on insulin signaling in overweight nondiabetic and NIDDM subjects, 1233-1242

## Glutamate dehydrogenase (GDH), DM effects on, 68

## Glutamic acid (Glu)

- effects of GLP-1(7-36) amide lys<sup>9</sup>-for-Glu<sup>9</sup> substitution on DPP IV resistance with cellular and metabolic actions similar to GLP-1(9-36) amide and exendin (9-39), 252-259
- plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392

## Glutamine (Gln)

- muscle, changes in release of, during hyperinsulinemia, normoglycemia, and hypoglycemia, 1208-1214
- plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- relation between leptin receptor gene Lys109Arg and Gln 223Arg polymorphisms, HOMA IR index, serum leptin, soluble leptin receptor, serum adiponectin, and lipids in Japanese subjects, 881-883

## Glutathione (GSH), effects of hypoxia and hypoxic training on levels of hepatic, 716-719

Gly, *see* GlycineGlycated hemoglobin, *see* HbA<sub>1c</sub>

## Glycated low-density lipoprotein (LDL), susceptibility to oxidation of nonglycated LDLs and, in IDDM, compared, 969-975

Glycemia, *see* Glycemic control of DM; Hyperglycemia; Hypoglycemia; Normoglycemic hyperinsulinemia; Normoglycemic men

## Glycemic control of DM

- with FPFS-410, 1532-1537
- relation between plasma ET, plasma VEGF concentration and, 550-555
- see also* Glycemic control of IDDM; Glycemic control of NIDDM and specific therapies

## Glycemic control of IDDM

- effects of, on F<sub>2</sub> isoprostan level at IDDM onset, 1118-1120
- with modified insulin, 54-58

## Glycemic control of NIDDM

- effects of, on microalbuminuria, 353-357
- with insulin, effects of, on serum high-sensitivity CRP, 693-699
- in NIDDM women, effects of resistance exercise on, 284-289
- in older men with partial androgen deficiency, 666-672
- see also specific therapies; for example:* Non-insulin-dependent diabetes mellitus, pioglitazone effects on

## Glycerol

- acipimox-induced reduction of, during exercise at cold temperature, 1133
- effects of exercise at cold temperature on, *see* Glycerol, effects of exercise at cold temperature on

Glycerol (*Continued*)

- isotretinoin effects on, 7
- skeletal muscle, in insulin-resistant lipolysis, HF diet and, 794-798
- see also* Triacylglycerol

## Glycerol, effects of exercise at cold temperature on

- acipimox-induced reduction of, 1133
- and substrate oxidation, 204

## Glycine (Gly)

- Arg16Gly  $\beta_2$ -ADR polymorphism interaction with  $\beta_2$ -Arg16Arg and  $\beta_3$ -ADR Trp64Arg polymorphisms, serum lipid profile and, 1184-1191

- plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392

Glycogen, *see* Hepatic glycogenGlycogen synthase (GS), exercise effects on GLUT<sub>4</sub> mRNA and activity of, but not on insulin signaling in overweight nondiabetic and NIDDM subjects, 1233-1242Glycogen synthase kinase-3 $\beta$  (GSK-3 $\beta$ ) mRNA (messenger ribonucleic acid) in skeletal muscle of transgenic male subjects, 1322-1330

## Glycohemoglobin (GHb), stability over time of glucose, RBC survival and, in hematologically stable subjects without DM, 1399-1403

## Glycoprotein

- alpha<sub>1</sub>-acid, in inflammation of chronic disease, 901, 902
- PC-1 K121Q polymorphism, association of, with race but not with IR, in children, 465-468

Glycosylphosphatidylinositol (GPI), *P yoelli*, effects of, on glucose homeostasis in obese STZ-DM subjects, 1048-1053

## Glycosylphosphatidylinositol-specific phospholipase D (GPI-PLD), serum, IR effects on, 138-139

Glycyrrhetic acid, responsiveness of body weight, hepatic 11 $\beta$ -HSD1 mRNA, and renal 11 $\beta$ -HSD2 mRNA to 11 $\beta$ -HSD inhibition by, 600-606

## Gonadotropin(s)

- in central hypothesis of PCOS, 359-361
- human chorionic, low temperature blocking stimulatory effects of, on steroidogenic acute regulatory protein mRNA and testosterone production but not on cAMP production in tumor cells, 955-958

## G-6-Pase (glucose-6-phosphatase), effects of exercise on activity of hepatic, in diabetes-prone subjects, 836-841

## G6PD (glucose-6-phosphate dehydrogenase) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065

GPI (glycosylphosphatidylinositol), *P yoelli*, effects of, on glucose homeostasis in obese STZ-DM subjects, 1048-1053

## GPI-PLD (glycosylphosphatidylinositol-specific phospholipase D), serum, IR effects on, 138-139

GR, *see* Glucocorticoid receptorGrowth factor (GF) receptors, emergence of, in activated CD4<sup>+</sup> and CD8<sup>+</sup> T lymphocytes, 117-122

## Growth hormone (GH)

- long-term monitoring of insulin sensitivity in GH-deficient subjects on GH therapy, 740-743
- LY117018 effects on secretion of, 563-570
- nighttime and daytime differences in counterregulation of hypoglycemia and, 895

- in smokers, *see* Growth hormone in smokers

## Growth hormone-binding protein (GHBP) in lipodystrophic HIV-infected subjects, 1565-1563

## Growth hormone (GH) in smokers

- acute effects of nicotine on, 578-582



- Growth hormone (GH) in smokers (*Continued*)  
 response of, to exercise by nondiabetic and IDDM smokers, 1140-1144
- GS (glycogen synthase), exercise effects on GLUT<sub>4</sub> mRNA and activity of, but not on insulin signaling in overweight nondiabetic and NIDDM subjects, 1233-1242
- GSH (glutathione), effects of hypoxia and hypoxic training on levels of hepatic, 716-719
- GSK-3 $\beta$  (glycogen synthase kinase-3 $\beta$ ) mRNA messenger ribonucleic acid) in skeletal muscle of transgenic male subjects, 1322-1330
- G276T adiponectin polymorphism in Japanese NIDDM subjects with incipient nephropathy, 1223-1226
- Gut  
 portal venous hyperinsulinemia effects on glucose absorption by, in conscious subjects, 1290-1295  
 short, regulation of serum lipid EFAD in subjects with, and on lipid-containing total parenteral nutrition, 273-277
- Haptoglobin, serum, correlation between HbA<sub>1c</sub>, retinocytes, serum bilirubin and, 1498
- Hb (hemoglobin)  
 in disabled hospitalized older subjects, HHcy and, 1018  
 WPG effects on, 1312  
*see also* HbA<sub>1c</sub>
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>)  
 and *ABCA1* gene expression-fasting glucose relationship in normoglycemic men, 19  
 in blood samples kept frozen at  $-80^{\circ}\text{C}$ , analysis of, 1496-1499  
 carotid atherosclerosis, vascular dementia and, 477  
 in DM, *see* HbA<sub>1c</sub> in DM  
 in hypercholesterolemia, serum LPL concentration and, 528  
 in IGT first-degree relatives of African American NIDDM subjects, 1553  
 in IR, *see* HbA<sub>1c</sub> in IR  
 in Japanese subjects, *see* HbA<sub>1c</sub> in Japanese subjects  
 in obesity, *see* HbA<sub>1c</sub> in obesity  
 and smoking-ADMA-obesity relationship, 1575, 1576  
 in young subjects, *see* HbA<sub>1c</sub> in young subjects
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in DM  
 effects of ATPCL inhibitors on, 68  
 and relation between plasma VEGF, ET-1 concentration, and glycemic control, 551  
*see also* HbA<sub>1c</sub> in IDDM; HbA<sub>1c</sub> in NIDDM
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in IDDM  
 energy substrate oxidation and, 656  
 glycemic control effects on F<sub>2</sub> isoprostane level at IDDM onset, 1119  
 in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641  
 oxidation of glycated and nonglycated LDLs and, 970  
 plasma apo C-3 polymorphisms and, 1299
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in IR  
 with cardiovascular autonomic dysfunction and microalbuminuria, 1360, 1362  
 in non-obese subjects, BMI and, 143
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in Japanese subjects  
 in insulin-resistant obese subjects, 651, 652  
 with NIDDM and incipient nephropathy, 1224  
 and relation between leptin receptor gene Lys109Arg and Gln223Arg polymorphisms of leptin receptor gene, HOMA IR index, serum soluble leptin receptor, serum leptin, serum adiponectin, and lipids, 881-883
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in NIDDM  
 HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in NIDDM (*Continued*)  
 ACP-1 and ADA effects on, 998, 999  
 alcohol effects on PP lipemia and, 78  
 and association of corrected QT intervals with carotid artery IMT, 1153, 1155, 1156  
 and at-risk for NIDDM subjects, 224, 226  
 correlation between erythrocyte membrane lipid composition and, 123-127  
 glyburide and nateglinide effects and, 1332  
 insulin therapy effects on, 694  
 metformin effects on, 160, 161  
 microalbuminuria and, 354  
 in obesity, *see* HbA<sub>1c</sub> in obesity  
 in older NIDDM men with partial androgen deficiency, 668, 670  
 Pancreas Tonic effects on, 1169  
 with retinopathy, 585, 586  
 serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301  
*see also* HbA<sub>1c</sub> in NIDDM nephropathy
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in NIDDM nephropathy  
 in Japanese subjects with incipient nephropathy, 1224  
 pioglitazone effects on, 1383
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in obesity  
 adiponectin, CRP and, 1456, 1457  
 in insulin-resistant obese Japanese subjects, 651, 652  
 with NIDDM, 1456, 1457  
 NN414 and DZ effects on, 443, 444
- HbA<sub>1c</sub> (glycated hemoglobin A<sub>1c</sub>) in young subjects  
 with NIDDM parents, 756  
 in young men with hypertensive parents, 470
- HC diet, *see* High-cholesterol diet
- HC/HF diet, *see* High-fat/high cholesterol diet, lipemic response to
- hCG (human chorionic gonadotropin), low temperature blocking stimulatory effects of, on steroidogenic acute regulatory protein mRNA and testosterone production but not on cAMP production in tumor cells, 955-958
- Hcy, *see* Homocysteine
- HD, *see* Hemodialyzed subjects
- HDL, *see* High-density lipoprotein
- HDL-C, *see* High-density lipoprotein-cholesterol
- Head and neck squamous cell carcinoma (HNSCC), effects of cellular CRABP-1 mRNA on CYP2-mediated catabolism of A11-*trans* retinoic acid and on cell proliferation in, 1007-1012
- Heart  
 weight of, in liver disease, 965  
*see also* Heart disease; Heart rate and entries beginning with element: Card-
- Heart disease  
 coronary, *see* Coronary heart disease  
 ischemic, carotid atherosclerosis, vascular dementia and, 477  
*see also* Risk factors for CV disease
- Heart rate (pulse rate; HR)  
 of CAD men, effects of red and white wine drinking on, 320  
 in early NIDDM nephropathy, pioglitazone effects on, 1476  
 effects of red wine drinking and food intake on, 1082  
 exercise effects on, *see* Heart rate, exercise effects on  
 in IR with LVH, candesartan effects on, 778, 779  
 in NIDDM, *see* Heart rate in NIDDM  
 in obese PM women, fluvastatin effects on, 735  
 resting, of young subjects with NIDDM parents, 756
- Heart rate (pulse rate; HR), exercise effects on  
 at cold temperature, 1131-1135  
 in overweight nondiabetic and NIDDM subjects, 1236

- Heart rate (pulse rate; HR) in NIDDM  
 with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360, 1362  
 in overweight NIDDM subjects, 1236
- Height  
 of children with glycoprotein PC-1 K121Q polymorphism, 467  
 of Ecuadorian Amazon Shur women, 1356  
 of hyperinsulinemic young men, whole-body protein synthesis and, 389  
 of IDDM subjects, insulin concentration and CHO requirement in IDDM during moderate exercise, 1127  
 of insulin-resistant subjects with central HPA dysfunction, 722  
 and isotretinoin effects on insulin sensitivity and plasma TGs, 5  
 of LBW Pima Indians with normal glucose tolerance, 906  
 of lipodystrophic subjects, 514  
 of NIDDM subjects, *see* Height of NIDDM subjects  
 of obese adolescents, *see* Height of obese adolescents  
 of smokers, *see* Height of smokers
- Height of exercising subjects  
 of exercising women on or not on ERT, 1194  
 and OC effects on glucoregulatory responses to exercise, 350
- Height of NIDDM subjects  
 and of at-risk for NIDDM subjects, 224  
 of NIDDM women, resistance exercise effects on glycemic control in, 285
- Height of obese adolescents  
 with components of MS, 864  
 hyperuricemic Japanese male adolescents, 450
- Height of smokers  
 acute effects of nicotine and, 579  
 and smoking effects on intravascular of HDL particle remodeling, 860
- Hematocrit, WPG effects on, 1312
- Hematologically stable subjects without DM, stability over time of GbH, glucose, and RBC survival in, 1399-1403
- Hemodialyzed subjects (HD)  
 for dyslipidemic CRF, atorvastatin effects on lipids, LDLs, and CRP in, 1113-1117  
 utility of non-HDLs in, 1013-1015
- Hemoglobin, *see* Hb
- Hemolysis, effects of, on HbA<sub>1c</sub>, 1496-1499
- Hepatic acyl-coenzyme A:cholesterol acyltransferase (ACAT), role of cholesterol absorption and activity of, in lipemic response to HF/HC diet, 817-822
- Hepatic apolipoprotein B (apo B), insulin regulating production of, independently of PKB/Akt1 mass or activity, 228-236
- Hepatic bile, plasma 27-hydroxycholesterol and plasma 7 $\alpha$ -hydroxy-4-cholesten-3-one as markers for synthesis of, dietary cholesterol, 42-48
- Hepatic farnesoid X receptor (FXR), effects of ileal bile transport inhibition on plasma C level through cholesterol 7-hydroxylase stimulation and inactivation of, 927-932
- Hepatic glucose-6-phosphatase (G6Pase), effects of exercise on activity of, in diabetes-prone subjects, 836-841
- Hepatic glucose production (HGP) in response to glucagon, effects of swimming on, 1027-1031
- Hepatic glutathione (GSH), effects of hypoxia and hypoxic training on levels of hepatic 8-OHdG and, 716-719
- Hepatic glycogen  
 and GSK-3 $\beta$  in transgenic subjects, 1325-1326  
 in obese men, NEFA effects on levels of, 886-893
- Hepatic 8-hydroxydeoxyguanosine (8-OHdG), effects of hypoxia and hypoxic training on levels of hepatic GSH and, 716-719
- Hepatic 11 $\beta$  (beta)-hydroxysteroid dehydrogenase 1 (11 $\beta$ -HSD1) mRNA (messenger ribonucleic acid), responsiveness of body weight and, to 11 $\beta$ -HSD inhibition by glycyrrhetic acid, 600-606
- Hepatic insulin signaling, effects of exercise on hepatic PEPCK and, in diabetes-prone subjects, 836-841
- Hepatic lipase (HL)  
 HF/HC diet effects on, 1023  
 Lp metabolism and deficiency in, 520-525
- Hepatic lipids, fenofibrate effects on accumulation of, 610
- Hepatic phosphoenolpyruvate carboxykinase (PEPCK), effects of exercise on hepatic insulin signaling and, in diabetes-prone subjects, 836-841
- Hepatic triglyceride lipase (HTGL), endurance exercise effects on, 196, 198-200
- Hepatocytes, thioctic acid effects on pyruvate metabolism and NEFA oxidation in, 165-173
- Hepatoma cells, *see* HepG2 cells, apo A-1 and
- HepG2 (hepatoma) cells, apo A-1 and  
 effects of COX inhibition on apo A-1 promoter activity in, 174-181  
 glucosamine effects on apo A-1 stabilization and expression in, 766-771
- Herbal supplement, effects of Ayurvedic, in NIDDM, 1166-1173
- Heredity, *see* Genetics
- Hexyl-insulin monoconjugate 2 (HIM2; modified insulin), oral, for IDDM, 54-58
- HF diet, *see* High-fat diet
- HF/HC diet, *see* High-fat/high-cholesterol diet, lipemic response to
- HGP (hepatic glucose production) in response to glucagon, effects of swimming on, 1027-1031
- HHcy, *see* Hyperhomocysteinemia
- High-cholesterol (HC) diet  
 effects, on atherogenic LDL particles, 823-830  
*see also* High-fat/high-cholesterol diet, lipemic response to
- High-density lipoprotein ( $\alpha$  lipoprotein; HDL)  
 erythrocyte membrane, 574  
 in hypothyroidism, effects of T<sub>4</sub> therapy on endothelial function and, 279  
 in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641  
 in NIDDM, PP, alcohol effects on, 78  
 plasma, *see* Plasma high-density lipoprotein  
 plasma vitamin K transport and, 216, 218  
 $\omega$ -3 PUFA and exercise effects on subfractions of, 749-754  
 RCT system and smoking effects on intravascular remodeling of particles of, 858-862  
 in SCI men, MS and, 1373, 1374  
 utility of non-HDLs in HD subjects, 1013-1015  
*see also* High-density lipoprotein-cholesterol
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C)  
 in acute SCI, 991  
 in atherosclerosis, *see* High-density lipoprotein-cholesterol in atherosclerosis  
 in CAD men, *see* High-density lipoprotein-cholesterol in CAD men  
 and CV disease risk factors, 1437  
 in dyslipidemic CRF subjects on HD, 1114  
 and erythrocyte membrane lipid composition, 574  
 during estrous cycle, 140  
 exercise and, *see* High-density lipoprotein-cholesterol, exercise effects and  
 in HD subjects, 1014

- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) (*Continued*)
- in hypercholesterolemia, *see* High-density lipoprotein-cholesterol in hypercholesterolemia
  - in IDDM, *see* High-density lipoprotein-cholesterol in IDDM
  - in IGT first-degree relatives of African American NIDDM subjects, 1553
  - in IR, *see* High-density lipoprotein-cholesterol in IR
  - in Korean women, AT distribution and, 1541
  - leptin levels and, 1412-1414
  - in mild hypercholesterolemia, 1073
  - in mixed hyperlipidemia, S-2E and PRV effects on, 682-683
  - in NIDDM, *see* High-density lipoprotein-cholesterol in NIDDM
  - in non-obese subjects, *see* High-density lipoprotein-cholesterol in non-obese subjects
  - in obesity, *see* High-density lipoprotein-cholesterol in obesity
  - in overweight women, serum TNF soluble receptors, TNF- $\beta$ , and NO and, 1269
  - plasma, *see* Plasma high-density lipoprotein-cholesterol
  - and plasma LDL clearance, 484
  - and plasma vitamin K transport, 216
  - in PM women, *see* High-density lipoprotein-cholesterol in PM women
  - in postpubertal Asian Indian adolescents, 1338
  - and  $\omega$ -3 PUFA effects on, in FCHL, 154
  - and relationship between leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, HOMA IR index, serum soluble leptin receptor, serum leptin, serum adiponectin, and lipids, in Japanese subjects, 881-883
  - serum, *see* Serum high-density lipoprotein-cholesterol
  - in subclinical hypothyroidism, 1513
  - in Vietnamese children with apo E polymorphism, 1519
  - WPG effects on, 1311-1312
  - in young subjects, *see* High-density lipoprotein-cholesterol in young subjects
  - see also* High-density lipoprotein<sub>2</sub>-cholesterol; High-density lipoprotein<sub>3</sub>-cholesterol
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C), exercise effects and
- blood, apo E polymorphism association with changes in  $\dot{V}O_{2\max}$  and, 111-113
  - endurance exercise effects, 196, 198-200
  - in overweight nondiabetic and NIDDM subjects, 1236
  - relationship of exercise, alcohol intake, and adiposity to levels of, 700-709
  - soccer playing effects, 1264
  - see also* High-density lipoprotein-cholesterol in exercising PM women on ERT
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in atherosclerosis
- in carotid atherosclerosis, vascular dementia and, 477
  - in normocholesterolemic premature atherosclerosis with daytime hypertriglyceridemia, 50
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in CAD men
- red and white wine drinking effects on, 320
  - risk factors for myocardial infarction and, 325, 326
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in exercising PM women on ERT
- or not on ERT, 1194
  - with risk for CAD, aerobic exercise and high-fiber, low-fat diet effects on, 378
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in hypercholesterolemia
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in hypercholesterolemia (*Continued*)
  - in mild hypercholesterolemia, 1073
  - serum LPL concentration and, 527, 528
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in IDDM
- energy substrate oxidation and, 656
  - and oxidation of glycated and nonglycated LDLs, 970
  - plasma apo C-3 polymorphisms and, 1299
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in IR, 312, 1524
- CV disease risk factors and, in obese and overweight subjects, 498
  - with LVH, candesartan effects on, 779
  - with microalbuminuria, *see* High-density lipoprotein-cholesterol in microalbuminuric IR; High-density lipoprotein-cholesterol in microalbuminuric NIDDM
  - in non-obese subjects, *see* High-density lipoprotein-cholesterol in non-obese insulin-resistant subjects
  - in normoglycemic men, *ABCA1* gene expression-fasting glucose relationship and, 19
  - serum GPI-PLD and, 139
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in microalbuminuric IR
- cilostazol effects on, 1407
  - see also* High-density lipoprotein-cholesterol in microalbuminuric NIDDM
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in microalbuminuric NIDDM
- cardiovascular autonomic dysfunction and, 1360, 1362
  - effects of glycemic control on, 354
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in NIDDM
- and association of corrected QT intervals with carotid artery IMT, 1155
  - and in at-risk for NIDDM subjects, 224, 226
  - and HbA<sub>1c</sub> in RBC membrane, 124
  - insulin therapy effects on, 694, 697, 698
  - Japanese NIDDM subjects, insulin secretion and insulin sensitivity and, 832
  - metformin effects on, 160, 161
  - with microalbuminuria, *see* High-density lipoprotein-cholesterol in microalbuminuric NIDDM
  - Pancreas Tonic effects on, 1169
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in non-obese insulin-resistant subjects
- CV disease risk factors and, 498
  - in non-obese NIDDM Korean subjects, 143, 144
  - serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in non-obese subjects
- in men, AT as fibrinogen level predictor and, 985, 986
  - in premenopausal women, metabolic risk and, 1068-1070
  - see also* High-density lipoprotein-cholesterol in non-obese insulin-resistant subjects
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in obese women
- effects of moderate weight loss and sibutramine or orlistat on, 432
  - in PM women, fluvastatin effects on, 736
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in obesity
- CV disease risk factors and, 498
  - in Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C and, 1057

- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in obesity (*Continued*)  
 with MS in chronic renal disease, 1257  
 smoking-ADMA-obesity relationship and, 1575, 1576  
*see also* High-density lipoprotein-cholesterol in obese women;  
 High-density lipoprotein-cholesterol in obesity with MS
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in obesity with MS  
 in adolescents, 864, 865  
 in treatment-seeking subjects, 436
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in PM women  
 of exercising women on ERT, 1194  
 obese women, fluvastatin effects on, 736  
 simvastatin effects on BMD and, 745, 746
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in young men  
 with hypertensive parents, 470  
 serum adiponectin association with, 589-593
- High-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C) in young subjects  
 with NIDDM parents, 756  
*see also* High-density lipoprotein-cholesterol in young men
- High-density lipoprotein<sub>1</sub>, *see* Lipoprotein(a)
- High-density lipoprotein<sub>2</sub>-cholesterol ( $\alpha$  lipoprotein<sub>2</sub>-cholesterol; HDL<sub>2</sub>-C)  
 erythrocyte membrane, 574  
 exercise and, *see* High-density lipoprotein<sub>2</sub>-cholesterol, exercise and  
 HF/HC diet effects on, 1023  
 in MS, 312, 313, 315  
 plasma, in FCHL,  $\omega$ -3 PUFA effects on levels of paraoxonase and, 153-158  
 serum, *see* Serum high-density lipoprotein<sub>2</sub>-cholesterol
- High-density lipoprotein<sub>2</sub>-cholesterol ( $\alpha$  lipoprotein<sub>2</sub>-cholesterol; HDL<sub>2</sub>-C), exercise and  
 blood, apo E polymorphism association with  $\dot{V}O_{2\max}$  and, 111-113  
 serum, apo E genotype and changes in  $\dot{V}O_{2\max}$  and, in endurance exercise, 196, 198-200  
 soccer playing effects on, 1264
- High-density lipoprotein<sub>3</sub>-cholesterol ( $\alpha$  lipoprotein<sub>3</sub>-cholesterol; HDL<sub>3</sub>-C)  
 erythrocyte membrane, 574  
 exercise and, *see* High-density lipoprotein<sub>3</sub>-cholesterol, exercise and  
 and  
 in FCHL,  $\omega$ -3 PUFA effects and, 154, 155  
 HF/HC diet effects on, 1023  
 serum, *see* Serum high-density lipoprotein<sub>3</sub>-cholesterol
- High-density lipoprotein<sub>3</sub>-cholesterol ( $\alpha$  lipoprotein<sub>3</sub>-cholesterol; HDL<sub>3</sub>-C), exercise and  
 blood, apo E polymorphism association with  $\dot{V}O_{2\max}$  and, 111-113  
 serum, apo E genotype and changes in  $\dot{V}O_{2\max}$  and, in endurance exercise, 196, 198-200  
 soccer playing effects on, 1264
- High-fat (HF) diet  
 fenofibrate and, *see* High-fat diet, fenofibrate and  
 and intracellular  $Ca^{2+}$  chelator effects on IR and spontaneous hypertension, 269-272  
 NO-1886 effects on fatty liver in STZ-DM due to, 260-263  
 obesity and, *see* High-fat diet, obesity and  
 SM and, *see* High-fat diet, effects of, on SM  
*see also* High-fat/high-cholesterol diet, lipemic response to
- High-fat (HF) diet, effects of, on SM (*Continued*)  
 effects of fiber type and, on skeletal muscle TAG and FATP-1 content, 1032-1036  
 and insulin-nonspecific reduction in SM glucose transport, 912-917  
 on insulin-resistant lipolysis in SM, 794-798
- High-fat (HF) diet, fenofibrate and  
 fenofibrate effects on white adipose tissue and HF diet-induced weight gain by ovariectomized subjects, 1284-1289  
 fenofibrate prevention of HF diet-induced obesity and HTG in LDL-receptor null subjects, 607-613
- High-fat (HF) diet, obesity and  
 fenofibrate prevention of HF diet-induced obesity in LDL-receptor null subjects, 607-613  
 leptin therapy to augment leptin circadian rhythm after weight loss in HF diet-induced obesity, 782-789  
 role of caloric intake and low-fat diet versus, in development of NIDDM with obesity, 454-457
- High-fat/high-cholesterol (HF/HC) diet, lipemic response to  
 exercise effects on PP lipemic response after, 1021-1026  
 role of cholesterol absorption and hepatic ACAT activity in, 817-822
- High-fiber/low-fat diet, effects of exercise and, on inflammatory and adhesion molecules in postmenopausal women on ERT and at risk for CAD, 377-381
- High-sensitivity C-reactive protein (CRP), effect of insulin therapy of NIDDM on, 693-699
- High-sucrose (S) diet, NOS inhibition and pioglitazone effects on insulin action in subjects on, 22-27
- HIM2 (hexyl-insulin monoconjugate 2), oral, for IDDM, 54-58
- Hindlimb suspension, 1-day, whole-body and skeletal muscle IR development after, 1215-1222
- Hirsutism in PCOS, 366
- Histidine (His), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- Histology, pancreatic islet, bezafibrate effects on, in obese NIDDM subjects, 408-409
- HIV (human immunodeficiency virus)-infected subjects,  
 lipodystrophic, IGFs, GHBP, IGFbPs, and IGFbP-3 protease, in 1565-1573
- HL, *see* Hepatic lipase
- HNF-4 $\alpha$*  gene, triple mutations of, associated with early-onset NIDDM in Filipino family, 959-963
- HNSCC (head and neck squamous cell carcinoma), effects of cellular CRABP-1 mRNA on CYP2-mediated catabolism of A11-*trans* retinoic acid and on cell proliferation in, 1007-1012
- HOMA (homeostasis model assessment) IR index  
 adiponectin and, *see* HOMA IR index, adiponectin and  
 in Ecuadoran Amazon Shur women, 1356  
 effects of interaction between FABP-4 and PPAR $\gamma$ -activated receptor polymorphism on, 304  
 and glycoprotein PC-1 K121Q polymorphism association with race but not IR in children, 466, 467  
 in insulin sensitivity, 1109, 1110  
 in Japanese subjects with beta-cell dysfunction, 950  
 in liver cirrhosis, 922-926  
 in NIDDM, *see* HOMA IR index in NIDDM  
 in obesity, *see* HOMA IR index in obesity  
 in PM women, *see* HOMA IR index in PM women  
 in postpubertal Asian Indian adolescents, 1338, 1339  
 serum GPI-PLD and, 139
- HOMA (homeostasis model assessment) IR index, adiponectin and adiponectin levels and, 2



- HOMA (homeostasis model assessment) IR index, adiponectin and (*Continued*)
- in daytime hypertriglyceridemic prematurely atherosclerotic normocholesterolemic subjects and their first-degree relatives, 50
  - in hypercholesterolemia, serum LPL concentration and, 528
  - and NEFA regulation of adiponectin, 791
  - relationship between serum adiponectin, serum soluble leptin receptor, serum leptin, lipids, leptin receptor gene Lys109Arg and Gln223Arg polymorphisms and, in Japanese subjects, 879-885
- HOMA (homeostasis model assessment) IR index in NIDDM and BMI in non-obese insulin-resistant NIDDM Korean subjects, 142-146
- in Japanese subjects, insulin sensitivity and insulin secretion and, 831-835
  - with obesity, pioglitazone effects on, 490
- HOMA (homeostasis model assessment) IR index in obesity
- in children, 1244
  - in Japanese subjects, 652
  - with NIDDM, pioglitazone effects on, 490
  - in PM women, fluvastatin effects on, 736
- HOMA (homeostasis model assessment) IR index in PM women
- on ERT and at risk for CAD, 378
  - obese women, fluvastatin effects on, 736
- Homeostasis model assessment, *see* HOMA IR index
- Homocysteine (Hcy)
- plasma, effects of elevated, on endothelial function recovery after denudation of carotid arteries, 760-765
  - remethylation and trans-sulfuration of, 1480-1483
  - total, in subclinical hypothyroidism, 1513
  - see also* Hyperhomocysteinemia
- HPA, *see* Hypothalamic-pituitary-adrenal axis
- HPRT (hypoxanthine phosphoribosyl transferase), point mutation in, responsible for hyperuricemia in women, 1500-1502
- HR, *see* Heart rate
- 11-HSD, *see* 11 $\beta$ -Hydroxysteroid dehydrogenase; Hepatic 11 $\beta$ -hydroxysteroid dehydrogenase 1 mRNA; 11 $\beta$ -hydroxysteroid dehydrogenase 2 mRNA
- HTG, *see* Hypertriglyceridemia
- HTGL (hepatic triglyceride lipase), endurance exercise effects on, 196, 198-200
- HTN, *see* Hypertension
- Human chorionic gonadotropin (hCG), low temperature blocking stimulatory effects of, on steroidogenic acute regulatory protein mRNA and testosterone production but not on cAMP production in tumor cells, 955-958
- Human immunodeficiency virus (HIV)-infected subjects, lipodystrophic, IGFs, GHBP, IGFbPs, and IGFbP-3 protease, in 1565-1573
- Hydrocortisone, *see* Cortisol
- Hydrophilic 7 $\beta$  (beta)-hydroxy bile acids, effectiveness of lovastatin, cholestyramine, and chenodeoxycholic acid in cerebrotendinous xanthomatosis, compared, 556-562
- 7 $\beta$  (beta)-Hydroxy bile acids, hydrophilic, effectiveness of lovastatin, cholestyramine, and chenodeoxycholic acid in cerebrotendinous xanthomatosis, compared, 556-562
- 7 $\alpha$ -Hydroxy-4-cholesten-3-one, plasma 27-hydroxycholesterol and plasma, as markers for hepatic bile synthesis, dietary cholesterol and, 42-48
- 27-Hydroxycholesterol, plasma, and plasma 7 $\alpha$ -hydroxy-4-cholesten-3-one and plasma, as markers for hepatic bile synthesis, dietary cholesterol and, 42-48
- (-)-Hydroxycitrate, effects of, on platelet function in DM, 66-72
- 8-Hydroxydeoxyguanosine (8-OHdG), effects of hypoxia and hypoxic training on hepatic levels of, 716-719
- 7 $\alpha$  (alpha)-Hydroxylase, cholesterol, effects of ileal bile transport inhibition on plasma C level through FXR inactivation and stimulation of, 927-932
- 17 $\alpha$  (alpha)-Hydroxylase/17,20-lyase deficiency, mutant CYP17 genes in, 1527-1531
- Hydroxyproline, urinary excretion of, in severe lipodystrophy, leptin replacement therapy effects on, 516
- 11 $\beta$ -Hydroxysteroid dehydrogenase (11 $\beta$ -HSD)
- CDCA effects on, in various tissues, 811-816
  - see also* 11 $\beta$ -Hydroxysteroid dehydrogenase 1 mRNA; 11 $\beta$ -Hydroxysteroid dehydrogenase 2 mRNA
- 11 $\beta$  (beta)-Hydroxysteroid dehydrogenase 1 (11 $\beta$ -HSD1) mRNA (messenger ribonucleic acid)
- in AT, effects of restricted diet on, 30-31
  - hepatic, responsiveness of body weight and, to 11 $\beta$ -HSD inhibition by glycyrrhetic acid, 600-606
- 11 $\beta$  (beta)-Hydroxysteroid dehydrogenase 2 (11 $\beta$ -HSD2) mRNA (messenger ribonucleic acid), responsiveness of body weight and, to 11 $\beta$ -HSD inhibition by glycyrrhetic acid, 600-606
- 1,25 Hydroxyvitamin D, serum, in severe lipodystrophy, leptin replacement therapy effects on, 516
- 25 Hydroxyvitamin D, serum, in severe lipodystrophy, leptin replacement therapy effects on, 516
- Hypercholesterolemia
- familial, effects of S-2E and PRV in, compared, 680-685
  - mild, diet composition as determinant of plasma ADMA in, 1072-1075
  - in obese hyperuricemic Japanese male adolescents, 450
  - serum LPL concentration related to TG metabolism in, 526-531
  - simvastatin effects on BMD in PM women with, 744-748
- Hyperglycemia
- beta-cell dysfunction and development of, in Japanese subjects, 943-954
  - effects of glucagon, epinephrine and, on renal glucose release in conscious subjects, 933-941
  - FPFS-410 effects on, 1532-1537
  - and hyperinsulinemia, *see* Hyperglycemia, hyperinsulinemia and
- Hyperglycemia, hyperinsulinemia and
- in maturity-onset hyperinsulinemia with polygenic obesity and hyperglycemia, CL316,243 effects on, 799-808
  - PP, MNH-01 effects on PP hyperinsulinemia, 977-983
- Hyperglycemic-glycogenolytic factor, *see* Glucagon
- Hyperhomocysteinemia (HHcy)
- causes of, 1481
  - in disabled hospitalized older subjects, 1016-1020
- Hyperinsulinemia
- contribution of cardiorespiratory fitness and visceral AT to dyslipidemia, hypertension and, in NIDDM with IGT, 644-649
  - effects of portal venous, on gut glucose absorption in conscious subjects, 1290-1295
  - hyperglycemia and, *see* Hyperglycemia, hyperinsulinemia and normoglycemic, *see* Normoglycemic hyperinsulinemia
  - obesity and, *see* Hyperinsulinemia, obesity and
  - plasma amino acid concentrations and whole-body protein synthesis in, in young men, 388-396
  - tempol effects on hypertension and, based on increase in medullary BF, 1305-1308
- Hyperinsulinemia, obesity and
- in obese PCOS women, 359
  - polygenic obesity, CL316,243 effects on hyperglycemia and maturity-onset hyperinsulinemia, 799-808

## Hyperlipidemia

- carotid atherosclerosis, vascular dementia and, 477
- familial combined,  $\omega$ -3 PUFA effects on levels of plasma HDL<sub>2</sub>-C and paraoxonase in, 153-158
- in hypothyroidism, 278
- mixed, effects of S-2E and PRV in, compared, 680-685
- in obese PCOS women, 366
- see also* Hypercholesterolemia; Hypertriglyceridemia

## Hypertension (HTN)

- in CAD men, 424-426
- carotid atherosclerosis, vascular dementia and, 477
- effects of increased medullary blood flow by tempol on hyperinsulinemia and, 1305-1308
- in exercise, *see* Hypertension in exercise
- of hypercholesterolemic PM women, simvastatin effects on, 745
- in hypothyroidism, 278
- insulin secretion, insulin sensitivity and, and metabolic profile of young men with hypertensive parents, 469-475
- IR and, *see* Hypertension, IR and
- in NIDDM, *see* Hypertension in NIDDM
- in obesity, *see* Hypertension in obesity

## Hypertension (HTN), IR and

- cardiovascular autonomic dysfunction, microalbuminuria and, 1360
- GLUT<sub>4</sub> in adipocytes and, 382-387
- intracellular Ca<sup>2+</sup> chelator effects on, high-fat diet and, 269-272

## Hypertension (HTN) in exercise

- in nondiabetic and IDDM smokers, 1140-1144
- resistance exercise effects on insulin-mediated glucose disposal and TNF- $\alpha$  in older subjects with, 397-402

## Hypertension (HTN) in NIDDM

- and association of corrected QT intervals with carotid artery IMT, 1155
- with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360
- with IGT, contribution of cardiorespiratory fitness and visceral AT to hyperinsulinemia, dyslipidemia and, 644-649
- serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301

## Hypertension (HTN) in obesity

- in obese PCOS women, 366
- and smoking-ADMA-obesity relationship, 1575

## Hyperthyroidism

- parathyroidectomy for primary, serum PTH relation to vitamin D profile in eucalcemia after, 1101-1106
- 3,3'-T<sub>2</sub>S in, 540

## Hypertriglyceridemia (HTG)

- daytime, in normocholesterolemic prematurely atherosclerotic subjects with, and in their first-degree relatives, 49-53
- fenofibrate preventing obesity and, due to high-fat diet in LDL-receptor null subjects, 607-613

## Hypertrophy, left ventricular, candesartan effects on IR and, 777-781

## Hyperuricemia

- in obese Japanese male adolescents, 448-453
- in women, point mutation in HPRT responsible for, 1500-1502

## Hypoglycemia

- in IDDM during moderate exercise, CHO intake to prevent, 1129-1130
- insulin-induced, *see* Insulin-induced hypoglycemia
- muscle glutamine release of, during normoglycemia, normoglycemic hyperinsulinemia and, 1208-1214
- nighttime and daytime differences in counterregulation of, 894-898

Hypoglycemia (*Continued*)

- pramlintide effects on response of catecholamines, glucagon, and symptoms of, 1227-1232

## Hypogonadism, cortisol production in men with, 1174-1176

## Hypolactatemia, DCA-induced, in cirrhotic and noncirrhotic subjects, 1087-1094

## Hypothalamic-pituitary-adrenal axis (HPA)

- central, CRH test of relation between MS and dysregulation of, 720-726

- leptin effects on weight loss, dysphagia, and activity of, in STZ-DM, 1558-1564

## Hypothyroidism

- effects of T<sub>4</sub> therapy of, on endothelial function, 278-279
- subclinical, CV disease risk factors in, 1512-1515
- 3,3'-T<sub>2</sub>S in, 540

## Hypoxanthine, plasma, sauna bathing and beer ingestion effects on concentration of, 772-776

## Hypoxanthine phosphoribosyl transferase (HPRT), point mutation in, responsible for hyperuricemia in women, 1500-1502

## Hypoxemia-stimulated glucose transport in SM, 914

## Hypoxia, effects of hypoxic training and, on hepatic 8-OHdG and GSH levels, 716-719

ICAM-1, *see* Intercellular adhesion molecule-1IDDM, *see* Insulin-dependent diabetes mellitusIDL, *see* Intermediate-density lipoproteinIDL-C, *see* Intermediate-density lipoprotein-cholesterolIGF, *see entries beginning with terms:* Insulin-like growth factorIGT, *see* Impaired glucose toleranceIL-1 $\beta$  (interleukin-1 $\beta$ ), effects of  $\omega$ -3 PUFAs alone or with *all-rac*  $\alpha$ -tocopherol on, 236-240IL-6, *see* Interleukin-6Ile (isoleucine), *see* Plasma isoleucineIleal bile transport, effects of inhibition of, on plasma cholesterol level through hepatic farnesoid X receptor inactivation and cholesterol 7 $\alpha$ -hydroxylase stimulation, 927-932IMCD (inner medullary collecting duct), ET effects on AVP<sub>2</sub> mRNA in, 1177-1183

## IM-FSIVGTT (insulin-modified frequently sampled intravenous glucose tolerance test), population and individual minimal modeling of, 1349-1354

## Immunofluorescence of eNOS and iNOS in early NIDDM nephropathy, 1474

## Immunoreactive insulin (IRI)

- fasting, in IR with LVH, 779
- in NIDDM, microalbuminuria and, 354

## Impaired glucose tolerance (IGT)

- effects of weight loss on IR with normal FPG or, in obese subjects 1095-1100
- insulin regulating kinetics of NEFAs in adult CF with, 1467-1472
- in NIDDM, *see* Impaired glucose tolerance in NIDDM
- in non-obese subjects, insulin secretion, GLP-1, and glucose-dependent insulinotropic polypeptide after glucose ingestion in, 624-631

## Impaired glucose tolerance (IGT) in NIDDM

- contribution of visceral AT and cardiorespiratory fitness to hyperinsulinemia, dyslipidemia, and hypertension in, 644-649
- see also* First-degree relatives, IGT, of African American NIDDM subjects

IMT (intimal-media thickness), *see* Carotid artery intimal-media thickness

## Incipient nephropathy in Japanese NIDDM subjects, G276T adiponectin polymorphism and, 1223-1226

## Incretins

alcohol intake effects on PP lipemia and PP levels of, in NIDDM, 77-83

*see also specific incretins*

Individual minimal modeling, population and, of IM-FSIVGTT, 1349-1354

Inducible nitric oxide synthase (iNOS) in early NIDDM nephropathy, 1474

Infants, *see* Newborns

Infarction, risk factors for myocardial, as predictors of CAD in men, 324-329

Infertility in obese PCOS women, 366

## Inflammation

in chronic disease, markers of, 899-903

in established preeclampsia, IR and, 1433-1435

low-grade, and MS in CHD, 852-857

*see also* Inflammation-sensitive molecules; Inflammatory molecules

Inflammation-sensitive molecules in men with CAD, acute effects of red and white wine drinking on circulating, 318-323

## Inflammatory molecules

effects of different oils on neutrophil FA composition and generation of, 59-65

in postmenopausal women on ERT and at risk for CAD, effects of high-fiber, low-fat diet and exercise on adhesion molecules and, 377-381

*see also specific inflammatory molecules*

Inner medullary collecting duct (IMCD), ET effects on AVP<sub>2</sub> mRNA in, 1177-1183

iNOS (inducible nitric oxide synthase) in early NIDDM nephropathy, 1474

INS-1 cells, effects of long-term exposure of, to *cis* and *trans* FAs, on insulin secretion and FA oxidation, 1158-1165

## Insulin

acute effects of nicotine on, in smokers, 578-582

in CAD men, risk factors for myocardial infarction and, 325

in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1090

diet and, *see* Insulin, diet and

effects of high glucose and high, on protein synthesis in cardiac myocytes and DNA, and collagen synthesis in cardiac fibroblasts, 710-715

in exercising PM women on or not on ERT, 1194

exogenous, unresponsiveness of NEFA multiphasic profile to, during FSIVGTT, 1202-1207

fasting, *see* Fasting insulin

hepatic apo B production regulated by, independently of PKB $\alpha$ /Akt1 mass or activity, 228-236

leptin levels and, 1412-1414

and leucine turnover in third trimester of uncomplicated pregnancy, 547

in obese and overweight women, serum TNF soluble receptors, TNF- $\beta$ , and NO and, 1269

plasma, *see* Plasma insulin

PP, OC effects on, 350, 351

in premenopausal women, sex steroids, plasma Lp and, 189, 190

regulation of NEFA kinetics by, in adult cystic fibrosis with impaired glucose tolerance, 1467-1472

and relation of intracellular cord blood platelet magnesium to birth weight, 1545

serum, *see* Serum insulin

smoking and, *see* Insulin, smoking effects and

Insulin (*Continued*)

*see also* Diabetes mellitus; Hyperinsulinemia; Hypoglycemia;

Insulin analogue; Insulin-dependent diabetes mellitus; Insulin-induced hypoglycemia; Insulin/insulin-like growth factor hypothesis; Insulin-like growth factor-1; Insulin-mediated glucose disposal; Insulin monoconjugate 2; Insulin in obesity; Insulin in PM women; Insulin release and secretion; Insulin resistance; Insulin sensitivity; Insulin signaling, effects of exercise on; Insulin-stimulated glucose transport; Insulin therapy; Insulinotropic polypeptide; Non-insulin-dependent diabetes mellitus; Streptozotocin-induced diabetes mellitus

## Insulin, diet and

NOS inhibition and pioglitazone effects on action of insulin in subjects on high-sucrose diet, 22-27

*see also* Insulin, HF diet effects on, in SM

## Insulin, HF diet effects on, in SM

insulin-nonspecific reduction and HF effects on glucose transport, 912-917

and on SM TAG and FATP-1 content, 1033-1034

## Insulin, smoking effects and

effects on intravascular HDL particle remodeling, 860

smoking-ADMA-obesity relationship and, 1575, 1576

## Insulin analogue, glargine as, effects of, on protein and lipid metabolism, 1037-1044

## Insulin-dependent diabetes mellitus (IDDM; type 1 diabetes mellitus)

ATP-citrate lyase role in acetyl-CoA and function of platelets in, 66-72

cardiovascular disease risk factors associated with serum sialic acid in Kuwaiti children and adolescents with, 638-643

energy substrate oxidation in, 655-659

glycated and nonglycated LDL oxidation in, compared, 969-975

glycemic control of, *see* Glycemic control of IDDM

insulin concentration and CHO requirement in, during moderate exercise, 1126-1130

kinetics of interstitial glucose in, 1484-1492

oral HIM2 for, 54-58

pituitary response to exercise by smokers with, 1140-1144

plasma apo C-3 polymorphisms in, 1296-1304

serum resistin levels in, before and after pancreatic islet transplantation, 403-404

## Insulin-induced hypoglycemia

acute, effects of normoglycemic hyperinsulinemia and, on retinal glucose uptake and ocular glucose metabolism, 1274-1283

effects of, on plasma PTH level in adrenal insufficiency 1251-1254

## Insulin/insulin-like growth factor (IGF) hypothesis of PCOS, 360, 363-365

## Insulin-like growth factor(s) (IGF)

IGFBPs, IGFBP-3 protease, GHBP and, in lipodystrophic HIV-infected subjects, 1565-1573

*see also* Insulin-like growth factor-1

## Insulin-like growth factor-1 (IGF-1)

in acromegaly, 565

carotid atherosclerosis, vascular dementia and, 477

and relation of intracellular cord blood platelet magnesium to birth weight, 1545

rhGH therapy effects on, in GH-deficient subjects, 741

## Insulin-like growth factor-binding protein(s) (IGFBP), IGFs,

IGFBPs, IGFBP-3 protease, GHBP and, in lipodystrophic HIV-infected subjects, 1565-1573

## Insulin-like growth factor-binding protein 3 (IGFBP-3) protease, IGFs, IGFBPs, GHBP and, in lipodystrophic HIV subjects, 1565-1573

- Insulin-mediated glucose disposal, resistance exercise effects on  
TNF- $\alpha$  and, in older hypertensive subjects, 397-402
- Insulin-modified frequently sampled intravenous glucose tolerance  
test (IM-FSIVGTT), population and individual minimal  
modeling of, 1349-1354
- Insulin monoconjugate 2, oral hexyl-, for IDDM, 54-58
- Insulin in obesity  
men, NEFA effects on hepatic glycogen level and, 892  
women, effects of moderate weight loss and sibutramine or orlistat  
on, 432
- Insulin in PM women  
on ERT and at risk for CAD, aerobic exercise and high-fiber, low-  
fat diet effects on inflammatory and adhesion molecules and,  
378  
sex steroids and plasma Lp and, 189, 190
- Insulin release and secretion  
dose-, glucose-, and calcium-dependent rebaudioside A effects on,  
1378-1381  
effects of long-term exposure of INS-1 cells to *cis* and *trans* FAs  
on, 1158-1165  
exercise effects on inhibitory effects of NE on, 1424-1432  
glucose-stimulated, LSF effects on, in STZ-DM, prediabetic, and  
normal subjects, 290-296  
in IGT, *see* Insulin release and secretion in IGT  
insulin sensitivity, *see* Insulin release and secretion,  $S_i$  and  
in NIDDM, *see* Insulin release and secretion in NIDDM  
normal glucose tolerance and, *see* Normal glucose tolerance,  
insulin release and secretion in  
in obesity, *see* Insulin release and secretion in obesity  
 $S_i$ , *see* Insulin release and secretion,  $S_i$  and
- Insulin release and secretion,  $S_i$  and  
in Japanese subjects at different stages of glucose tolerance, 831-  
835  
metabolic profile and, in young men with hypertensive parents,  
469-475  
in normal glucose-tolerant Pima Indians with LBW, 904-911  
rosiglitazone effects on plasma adiponectin and, in IGT first-  
degree relatives of African American NIDDM subjects, 1552-  
1557
- Insulin release and secretion in IGT  
effects of weight loss by obese subjects with IGT on, 1095-1100  
GLP-1, glucose-dependent insulinotropic polypeptide and, after  
glucose ingestion by non-obese IGT subjects, 624-631
- Insulin release and secretion in NIDDM  
insulin sensitivity and, at different stages of glucose tolerance in  
Japanese subjects, 831-835  
with obesity, pioglitazone effects on prevention of beta-cell mass  
loss and, 488-494
- Insulin release and secretion in obesity  
effects of weight loss on, in IGT or normal glucose-tolerant  
subjects, 1095-1100  
with NIDDM, pioglitazone effects on prevention of beta-cell mass  
loss and, 488-494
- Insulin resistance (IR)  
adiponectin, CRP and, in postpubertal Asian Indian adolescents,  
1336-1341  
candesartan effects on LVH and, 777-781  
in cirrhosis, levels of serum soluble TNF-R associated with, 922-  
926  
development of whole-body and skeletal muscle, after 1-day  
hindlimb suspension, 1215-1222  
glycoprotein PC-1 K121Q polymorphism associated with race but  
not with, in children, 465-468
- Insulin resistance (IR) (*Continued*)  
HF diet effects on insulin-resistant lipolysis in skeletal muscle,  
794-798  
hypertension and, *see* Hypertension, IR and  
with increased serum glycosylphosphatidylinositol-specific  
phospholipase D, 138-139  
indices of, 1522-1526  
and inflammation in established preeclampsia, 1433-1435  
with microalbuminuria, *see* Microalbuminuria in IR  
HF diet effects on insulin-resistant lipolysis in skeletal muscle,  
794-798  
in non-obese subjects, *see* Non-obese subjects, insulin-resistant  
obesity and, *see* Insulin resistance in obesity  
plasma NEFA regulation in, 1197-1201  
prevalence of, and associated CV disease risk factors in  
overweight and normoponderal subjects with, 495-499  
relationship between BMI, beta-cell function and, 1462-1466  
SSPG in, *see* Steady-state plasma glucose in IR  
stevioside effects on skeletal muscle glucose transport in, 101-107  
*see also* HOMA IR index; Insulin sensitivity; Metabolic syndrome
- Insulin resistance (IR) in obesity  
and HF diet effects on insulin-resistant lipolysis in skeletal  
muscle, 794-798  
with normal FPG or IGT, effects of weight loss on, 1095-1100  
Ob-R gene polymorphism associated with, in Japanese men, 650-  
654  
prevalence of associated CV disease risk factors with, 495-499
- Insulin sensitivity ( $S_i$ )  
effects of interaction between FABP-4 and PPAR $\gamma$ -activated  
receptor polymorphism on body composition and, in men,  
303-309  
erythrocyte membrane lipid composition association with  
arachidonic acid and, 571-577  
estimates of, 1107-1112  
insulin secretion and, *see* Insulin release and secretion,  $S_i$  and  
isotretinoin effects on, 4-10  
long-term monitoring of, in GH-deficient subjects on GH therapy,  
740-743  
in PM women, independent association of androgenicity and  
obesity with, 507-512  
and relationship between BMI, IR, and beta-cell function, 1462-  
1466  
stevioside effects on skeletal muscle glucose transport in, 101-107
- Insulin signaling, effects of exercise on  
on hepatic insulin signaling and hepatic PEPCK, 836-841  
in overweight nondiabetic and NIDDM subjects, 1233-1242
- Insulin-stimulated glucose transport, reduced SM, high-fat diet and,  
912-917
- Insulin therapy  
of NIDDM, effects of, on serum high-sensitivity CRP, 693-699;  
*see also* Glycemic control of NIDDM  
unresponsiveness of NEFA multiphasic profile to, during  
FSIVGTT, 1202-1207  
*see also* entries beginning with terms: Glycemic control
- Insulinotropic polypeptide, glucose-dependent, alcohol effects on, in  
NIDDM, 77-83
- Intercellular adhesion molecule-1 (ICAM-1)  
in CAD, *see* Intercellular adhesion molecule-1, CAD and  
in NIDDM, metformin effects on, 161
- Intercellular adhesion molecule-1 (ICAM-1), CAD and  
high-fiber, low-fat diet and exercise effects on, in postmenopausal  
women on ERT and at risk for CAD, 377-381  
red and white wine effects on, in CAD men, 318-323



- Interleukin-1 (IL-1), effects of  $\omega$ -3 PUFAs alone or with *all-rac* -tocopherol on, 236-240
- Interleukin-6 (IL-6)  
 CAD and, *see* Interleukin-6, CAD and  
 in CHD, IR and, 853, 854  
 effects of  $\omega$ -3 PUFAs alone or with *all-rac*  $\alpha$ -tocopherol on, 236-240  
 in inflammation of chronic disease, 901, 902  
 and IR in liver cirrhosis, 923, 924  
 in non-obese men, and AT as fibrinogen level predictor, 985, 986  
*see also* Interleukin-6 mRNA; Interleukin-6 receptor
- Interleukin-6 (IL-6), CAD and  
 aerobic exercise and high-fiber, low-fat diet effects on, in postmenopausal women on ERT and at risk for CAD, 379  
 plasma, red and white wine effects on, in CAD men, 318-323
- Interleukin-6 (IL-6) mRNA (messenger ribonucleic acid), SM, effects of epinephrine and ionomycin on protein release and, compared, 1492-1495
- Interleukin-6 (IL-6R) receptor, and IR in liver cirrhosis, 923, 924
- Intermediate-density lipoprotein (IDL)  
 in HL deficiency, 523  
 plasma, in PM and premenopausal women, sex steroids and, 189  
 and plasma vitamin K transport, 216  
*see also* Intermediate-density lipoprotein-cholesterol
- Intermediate-density lipoprotein-cholesterol (IDL-C)  
 in HD subjects, 1104, 1115  
 in IDDM, plasma apo C-3 polymorphisms and, 1301  
 $\omega$ -3 PUFA and exercise effects on, 751  
 S-2E and PRV effects on, in mixed hyperlipidemia, compared, 682-683
- Interstitial glucose, kinetics of, in IDDM, 1484-1492
- Intimal-media thickness, *see* Carotid artery intimal-media thickness
- Intracellular  $\text{Ca}^{2+}$ , *see* Calcium $^{2+}$ ; Calcium $^{2+}$  chelator
- Intracellular cord blood platelet magnesium (Mg), relation of, to birth weight, 1544-1547
- Intramuscular triglycerides (TGs) after 1-day hindlimb suspension, 1217
- Intranuclear nuclear factor- $\kappa$ B (NF $\kappa$ B), differential effects of glucose and alcohol on ROS generation and, in mononuclear cells, 330-334
- Intravascular remodeling of HDL particles, smoking effects on, and its implications for RCT system, 858-862
- Intravenous glucose tolerance test, *see* Frequently sampled intravenous glucose tolerance test
- Ionomycin, effects of epinephrine and, on skeletal muscle IL-6 mRNA and protein release, compared, 1492-1495
- IR, *see* Insulin resistance
- IRI, *see* Immunoreactive insulin
- Ischemic heart disease, carotid atherosclerosis, vascular dementia and, 477
- Islets of Langerhans, *see* Pancreatic islets
- Isoflavone, soy, effects of moderate exercise and, on AT accumulation and bone loss in postmenopausal subjects, 942-948
- Isoleucine, *see* Plasma isoleucine
- Isoprostane, F $_2$ , effects of glycemic control on level of, at IDDM onset, 1118-1120
- Isotretinoin, effects of, on plasma TGs and insulin sensitivity, 4-10
- IVGTT (intravenous glucose tolerance test), *see* Frequently sampled intravenous glucose tolerance test
- Japanese adolescents, hyperuricemic obese, 448-453
- Japanese men, polymorphism in  
 -1562C $\rightarrow$ T MMP-9 polymorphism associated with BMD in, 135-137
- Japanese men, polymorphism in (*Continued*)  
 obese, Ob-R gene polymorphism associated with IR in, 650-654  
 young, Pro12Ala PPAR $\gamma$ 2 polymorphism associated with adiponectin levels in, 1548-1551
- Japanese NIDDM subjects  
 with incipient diabetic nephropathy in, G276T adiponectin polymorphism in, 1223-1226  
 insulin secretion and sensitivity at different stages of glucose tolerance in, 831-835
- Japanese subjects  
 NIDDM, *see* Japanese NIDDM subjects  
 role of beta-cell dysfunction in development of hyperglycemia in, 943-954  
*see also* Japanese adolescents; Japanese subjects, polymorphism in
- Japanese subjects, polymorphism in  
 ABCA1 gene, serum HDL-C or apo A-1 levels associated with, in Japanese school-age children, 182-186  
 G276T adiponectin polymorphism and incipient diabetic nephropathy in NIDDM subjects, 1223-1226  
 leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, relationship between lipids, serum soluble leptin receptor, serum leptin, HOMA IR index, 879-885  
*see also* Japanese men, polymorphism in
- K (potassium) channel inhibitors, and 4AP effects on delayed vasorelaxation by troglitazone, 147-152
- K121Q polymorphism of glycoprotein PC-1, association of, with race but not with IR in children, 465-468
- Kidney, *see* Nephropathy and entries beginning with term: Renal Kinase  
 creatinine, in dyslipidemic CRF subjects on HD, 1116  
*see also* Glycogen synthase; Glycogen synthase kinase- $\beta$ 3 mRNA; Protein kinase; Protein kinase B $\alpha$ /Akt1
- Kinetics  
 apo A-1, apo B-48, and apo B-100, in obese MS subjects with chronic renal disease, 1255-1261  
 of apo B-100 in HL deficiency, 523  
 interstitial glucose, in IDDM, 1488-1492  
 plasma leucine, and whole-body leucine synthesis in hyperinsulinemic young men, 392-393  
 regulation of NEFA, by insulin in adult cystic fibrosis with impaired glucose tolerance, 1467-1472
- Korean subjects  
 effects of PPAR $\gamma$ 2 Pro12Ala polymorphism on AT distribution, in Korean women, 1538-1543  
 non-obese insulin-resistant NIDDM, BMI as determining factor of IR degree in, 142-146  
 obese, effects of UCP-1 -3826A $\rightarrow$ G polymorphism on LDL-C level in, 1054-1059
- Kuwaiti children and adolescents, IDDM, cardiovascular disease risk factors associated with serum sialic acid in, 638-643
- Lactate, DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1087-1094
- Lactate dehydrogenase (LDH), DM effects on, 68
- Lactic acid, beer ingestion and sauna bathing effects on, 774-775
- Lard in HF diet, 1033
- Late-onset propionic acidemia, fatal outcome of, 809-810
- LBM (lean body mass), *see* Fat-free mass
- LBW (low birth weight) Pima Indians with normal glucose tolerance, insulin secretion, insulin sensitivity in, 904-911
- LCAT, *see* Lecithin:cholesterol acyltransferase
- LDH (lactate dehydrogenase), DM effects on, 68
- LDL, *see* Low-density lipoprotein

- LDL-C, *see* Low-density lipoprotein-cholesterol
- LDLR (low-density lipoprotein receptor)-null subjects, fenofibrate preventing obesity and hypertriglyceridemia in, 607-613
- Lean body mass, *see* Fat-free mass
- Lean subjects, *see entries beginning with terms*: Non-obese subjects
- Lecithin:cholesterol acyltransferase (LCAT)  
   smoking effects on concentrations of, 858-862  
   *see also* Lecithin:cholesterol acyltransferase,  $\omega$ -3 PUFA effects on
- Lecithin:cholesterol acyltransferase (LCAT),  $\omega$ -3 PUFA effects on  
   in FCHL, 155  
   on LCAT activity, 752
- Left ventricular hypertrophy (LVH), candesartan effects on IR and, 777-781
- Leptin  
   circulating, as marker of fat mass in acute spinal cord injury, 989-994  
   effects of, on HPA activity, weight loss, and dysphagia in STZ-DM, 1558-1564  
   effects of agricultural versus traditional lifestyle on, in Ecuadoran Amazon Shuar women, 1355-1358  
   increased levels of, associated with Trp64Arg polymorphism of  $\beta_3$ -adrenergic receptor but not with  $-3826A \rightarrow G$  polymorphism of UCP-1 gene in Spanish subjects, 1411-1416  
   and relation of intracellular cord blood platelet magnesium to birth weight, 1545  
   in young Japanese men, Pro12Ala PPAR $\gamma$ 2 polymorphism, adiponectin and, 1549  
   *see also* Leptin mRNA; Leptin in obesity; Leptin receptor; Leptin receptor gene; Leptin therapy; Plasma leptin; Serum leptin
- Leptin mRNA (messenger ribonucleic acid), fenofibrate effects on, in ovariectomized subjects, 1286
- Leptin in obese women  
   effects of moderate weight loss and sibutramine or orlistat on, 432  
   with PCOS, 362-363
- Leptin in obesity  
   effects of leptin therapy on circadian rhythm of, and weight loss after HF diet-induced obesity, 782-789  
   in insulin-resistant obese Japanese subjects, 652  
   plasma, NN414 and DZ effects on, compared, 443, 444  
   *see also* Leptin in obese women
- Leptin receptor, soluble, relationship between serum leptin, serum adiponectin levels, HOMA IR index, lipids, and leptin receptor gene Lys109Arg and Gln223Arg polymorphisms in Japanese subjects, 879-885
- Leptin receptor gene, relationship between serum leptin, serum adiponectin levels, HOMA IR index, lipids, and Lys109Arg and Gln223Arg polymorphisms of, in Japanese subjects, 879-885
- Leptin therapy  
   leptin circadian rhythm after weight loss by diet-induced obese subjects increased by, 782-789  
   severe lipodystrophy on body composition, 513-519
- Leucine (Leu)  
   turnover of, during third trimester of uncomplicated pregnancy, 545-549  
   *see also* Plasma leucine
- Leukocyte *ABCA1* gene, expression of, associated with fasting glucose concentration in normoglycemic men, 17-21
- LF (low-fat diet), role of caloric intake and high-fat diet versus, in development of NIDDM and obesity, 454-457
- LH, *see* Luteinizing hormone; Luteinizing hormone hypothesis of PCOS
- Lifestyle  
   association between diet, cardiovascular risk factors, plasma CRPs and, 1436-1442
- Lifestyle (*Continued*)  
   effects of, on leptin in Ecuadoran Amazon Shuar women, 1355-1358  
   effects of, on risk for metabolic syndrome, 1503-1511
- Linoleic acid  
   effects of, on SP1-induced apo A-1 promoter, 1343  
   TG content of, in MS, 312  
   (gamma)-Linoleic acid in MS, 312
- Linolenic acid, effects of, on Sp1-induced apo A-1 promoter, 1343
- 3n3  $\alpha$  (alpha)-Linolenic acid in MS, 312
- Lipase, *see* Hepatic lipase; Hepatic triglyceride lipase; Lipoprotein lipase; Phospholipase D
- Lipemia, *see* Blood lipids
- Lipid(s)  
   blood, *see* Blood lipids  
   endurance exercise effects on, 195-196  
   erythrocyte membrane, *see* Erythrocyte membrane, lipid composition of  
   glargine action on metabolism of, 1037-1044  
   hepatic, fenofibrate effects on accumulation of, 610  
   in HL deficiency, 520-525  
   in obesity, *see* Lipid(s) in obesity  
   plasma, *see* Plasma lipids  
   relationship between serum soluble leptin receptor, serum leptin, HOMA IR index, leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, and levels of, in Japanese subjects, 879-885  
   serum, *see* Serum lipids  
   smoking effects on concentrations of, 858-862  
   *see also* Lipid peroxides; Phospholipid(s) *entries beginning with element*: Lip- and specific lipids
- Lipid(s) in obesity  
   effects of NN414 and DZ on glucose tolerance and, compared, 441-447  
   with NIDDM, bezafibrate effects on glucose metabolism and, 405-413
- Lipid peroxides, carotid atherosclerosis, vascular dementia and, 477, 479
- Lipid transfer inhibitor protein (LTIP), smoking effects on, 858-862
- Lipodystrophic human immunodeficiency virus
- Lipodystrophy  
   with HIV infection, IGFs, IGFbPs, GHBP, and IGFbP-3 protease in 1565-1573  
   severe, effects of leptin replacement therapy of, on body composition, 513-519
- Lipogenic enzyme mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in white adipose tissue of CRF subjects, 1060-1065
- R-(+)- $\alpha$ -Lipoic acid (R-LA; thioctic acid), effects of, on pyruvate metabolism and NEFA oxidation in hepatocytes, 165-173
- Lipolysis in IR  
   IR estimates and, 1199  
   skeletal muscle, HF diet effects on, 794-798
- Lipoprotein (Lp)  
   during estrous cycle, 140-141  
   metabolism of, in hepatic lipase deficiency, 520-525  
   plasma, *see* Plasma lipoprotein  
   triglyceride-rich, plasma vitamin K transport and, 215-221  
   *see also* High-density lipoprotein; Intermediate-density lipoprotein; Lipoprotein(a); Lipoprotein lipase; Low-density lipoprotein
- Lipoprotein(a) [Lp(a)]  
   carotid atherosclerosis, vascular dementia and, 477, 479

- Lipoprotein(a) [Lp(a)] (*Continued*)  
 in FCHL,  $\omega$ -3 PUFA effects in, 154  
 serum, in CAD men, 425  
 smoking effects on, 860  
 in subclinical hypothyroidism, 1513
- Lipoprotein lipase (LPL)  
 effects of NO-1886 as activator of, on fatty liver in STZ-DM subjects due to high-fat diet, 260-263  
 endurance exercise effects on, 196, 198-200  
 HF/HF diet effects on, 1023  
 serum, relation between concentration of, and TG metabolism in hypercholesterolemia, 526-531  
 smoking effects on, 861
- Lisofylline (LSF), effects of, on glucose-stimulated insulin secretion in STZ-DM, and prediabetic and normal subjects, 290-296
- Liver  
 fatty, in STZ-DM, due to high-fat diet, NO-1886 effects on, 260-263  
*see also* Liver weight and entries beginning with element: Hepat- and specific conditions
- Liver adipose tissue (AT), and metabolic risk in non-obese premenopausal women, 1066-1071
- Liver cirrhosis, *see* Cirrhosis
- Liver disease, effects of bile duct ligation- and galactosamine-induced, on cardiac protein synthesis, 964-968
- Liver weight  
 leptin replacement therapy effects on, in severe lipodystrophy, 515-516  
 MHN-01 effects on, 981  
 in STZ-DM, NO-1886 effects on, 261
- Long-term exposure of INS-1 cells to *cis* and *trans* FAs, effects of, on insulin secretion and FA oxidation, 1158-1165
- Long-term monitoring of insulin sensitivity in GH-deficient subjects on rhGH therapy, 740-743
- Long-term stored frozen blood samples, analysis of HbA<sub>1c</sub> in, 1497, 1498
- Lovastatin, effectiveness of hydrophilic 7 $\beta$ -hydroxy bile acids, lovastatin, and cholestyramine and, in CTX, compared, 556-562
- Low birth weight (LBW) Pima Indians with normal glucose tolerance, insulin secretion, and insulin sensitivity in, 904-911
- Low-density lipoprotein ( $\beta$  lipoprotein; LDL)  
 atorvastatin effects on, dyslipidemic CRF subjects on HD, 1113-1117  
 diet and, *see* Low-density lipoprotein, diet and  
 effects of T<sub>4</sub> therapy in hypothyroidism on endothelial function and, 279  
 in MS, 312, 313, 315  
 in NIDDM, *see* Low-density lipoprotein in NIDDM  
 oxidation of, *see* Oxidation, LDL  
 plasma, *see* Plasma low-density lipoprotein  
 plasma vitamin K transport and, 218  
 $\omega$ -3 PUFA and exercise effects on subfractions of, 749-754  
 serum adiponectin association with particle size of, in young men, 589-593  
 small-dense, *see* Small-dense low-density lipoprotein  
*see also* Low-density lipoprotein-cholesterol; Low-density lipoprotein receptor-null subjects; Very-low-density lipoprotein
- Low-density lipoprotein ( $\beta$  lipoprotein; LDL), diet and and CV disease risk factors, 1438  
 HC diet effects on atherogenic particles of, 823-830
- Low-density lipoprotein ( $\beta$  lipoprotein; LDL) in NIDDM  
 insulin therapy effects on, 694, 697
- Low-density lipoprotein ( $\beta$  lipoprotein; LDL) in NIDDM (*Continued*)  
 plasma oxidized, correlation between vascular complications, serum PON1 polymorphism and, 297-302  
 PP, alcohol effects on, 78
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C)  
 $\beta$ <sub>2</sub>-ADR Arg16Gly polymorphism and, 1184  
 carotid artery IMT and, 1155  
 carotid atherosclerosis, vascular dementia and, 477, 479  
 in children, *see* Low-density lipoprotein-cholesterol in children  
 diet and, *see* Low-density lipoprotein-cholesterol, diet and  
 in dyslipidemic CRF subjects on HD, 1114  
 during estrous cycle, 140  
 exercise and, *see* Low-density lipoprotein-cholesterol, exercise effects on  
 in HD subjects, 1014  
 in hypercholesterolemia, *see* Low-density lipoprotein-cholesterol in hypercholesterolemia  
 in hyperlipidemia, *see* Low-density lipoprotein-cholesterol in hyperlipidemia  
 in IDDM, *see* Low-density lipoprotein-cholesterol in IDDM  
 in IGT first-degree relatives of African American NIDDM subjects, 1553  
 in IR, *see* Low-density lipoprotein-cholesterol in IR  
 in Japanese school-age children, *ABCA1* gene polymorphism association with, 183  
 in Korean women, AT distribution and, 1541  
 leptin and, *see* Low-density lipoprotein-cholesterol, leptin and  
 in MS *see* Low-density lipoprotein-cholesterol in MS  
 in NIDDM, *see* Low-density lipoprotein-cholesterol in NIDDM  
 in non-obese men, and AT as level of fibrinogen predictor, 985, 986  
 in obesity, *see* Low-density lipoprotein-cholesterol in obesity  
 in overweight women, serum TNF soluble receptors, TNF- $\beta$ , NO and, 1269  
 plasma, anti-inflammatory effects of  $\omega$ -3 PUFA alone or combined with *all-rac*  $\alpha$ -tocopherol on, 237  
 plasma LDL clearance and, 484  
 plasma vitamin K transport and, 216  
 in PM women, *see* Low-density lipoprotein-cholesterol in PM women  
 in postpubertal Asian Indian adolescents, 1338  
 serum, in CAD men, 425  
 smoking effects on, 860  
 in subclinical hypothyroidism, 1513  
 WPG effects on, 1311-1312  
 in young subjects, *see* Low-density lipoprotein-cholesterol in young subjects
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C), diet and  
 aerobic exercise and high-fiber, low-fat diet effects in postmenopausal women on ERT and at risk for CAD, 378  
 and CV disease risk factors, 1437  
 HF/HF diet effects, 1023
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C), exercise effects on  
 exercise effects on, in overweight nondiabetic and NIDDM subjects, 1236  
 in PM women, *see* Low-density lipoprotein-cholesterol, exercise effects on, in PM women on ERT  
 $\omega$ -3 PUFA and exercise effects, 749-751  
 in soccer players, 1264

- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C), exercise effects on (*Continued*)  
*see also* Low-density lipoprotein-cholesterol in exercise,  $\dot{V}O_{2\max}$  and
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C), exercise effects on, in PM women on ERT  
 or not on ERT, 1194  
 with risk for CAD, aerobic exercise and high-fiber, low-fat diet effects, 378
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C), leptin and  
 leptin levels and, 1412-1414  
 and leptin receptor gene polymorphism, 881-883
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in children  
 in Japanese school-age children, *ABCA1* gene polymorphism association with, 183  
 in Vietnamese children with apo E polymorphism, 1519
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in exercise,  $\dot{V}O_{2\max}$  and  
 blood, apo E polymorphism and, 111-113  
 serum, in endurance exercise, apo E genotype and changes in  $\dot{V}O_{2\max}$ , 196, 198-200
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in hypercholesterolemia  
 in mild hypercholesterolemia, 1073  
 serum LPL concentration and, 527, 528
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in hyperlipidemia  
 anti-inflammatory effects of  $\omega$ -3 PUFAs in FCHL and, 154  
 S-2E and PRV effects on, in mixed hyperlipidemia, 682-683
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in IDDM  
 and oxidation of glycated and nonglycated LDLs, 970  
 plasma apo C-3 polymorphisms and, 1299, 1301
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in IR  
 associated with CV disease risk factors, 498  
 in insulin-resistant obese Japanese subjects, 651  
 in non-obese Korean NIDDM subjects, 143, 144  
*see also* Low-density lipoprotein-cholesterol in obesity with IR
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in MS, 312  
 with acute SCI, 991  
 with obesity and chronic renal disease, 1257
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in NIDDM  
 and at-risk for NIDDM subjects, 224, 226  
 HbA<sub>1c</sub>-lipid composition correlation in RBC membrane and, 124  
 metformin effects on, 160, 161  
 in non-obese insulin-resistant Korean subjects, 143, 144  
 Pancreas Tonic effects on, 1169  
 rosiglitazone effects on, 1123  
 serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 301
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in obese women  
 fluvastatin effects on, 736  
 sibutramine or orlistat effects on, after moderate weight loss, 432
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in obesity  
 with MS and chronic renal disease, 1257  
 in obese adolescents, 864
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in obesity (*Continued*)  
 in obese Korean subjects, -3826A→G UCP-1 polymorphism effects on level of, 1054-1059  
 and smoking-ADMA-obesity relationship, 1575, 1576  
*see also* Low-density lipoprotein-cholesterol in obese women;  
 Low-density lipoprotein-cholesterol in obesity with IR
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in obesity with IR  
 in obese Japanese men, 651  
 prevalence of associated CV disease risk factors with, 498
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in PM women  
 simvastatin effects on BMD and, 745, 746  
*see also* Low-density lipoprotein-cholesterol, exercise effects on, in PM women on ERT
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in young men  
 with hypertensive parents, 470, 473  
 serum adiponectin association with, 590
- Low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in young subjects  
 with NIDDM parents, 756  
*see also* Low-density lipoprotein-cholesterol in young men
- Low-density lipoprotein receptor (LDLR)-null subjects, fenofibrate preventing obesity and hypertriglyceridemia in, 607-613
- Low-fat (LF) diet, role of caloric intake and high-fat diet versus, in NIDDM and obesity development, 454-457
- Low-fat/high-fiber diet, effects of exercise and, on inflammatory and adhesion molecules in postmenopausal women on ERT and at risk for CAD, 377-381
- Low-grade inflammation, role of, in MS with CHD, 852-857
- Low temperature, hCG stimulatory effects on steroidogenic acute regulatory protein mRNA and testosterone production  
 blocked by, but not cAMP production in tumor cells, 955-958
- Lp, *see* Lipoprotein
- Lp(a), *see* Lipoprotein(a)
- LPL, *see* Lipoprotein lipase
- LSF (lisofylline), effects of, on glucose-stimulated insulin secretion in STZ-DM, prediabetic, and normal subjects, 290-296
- LTIP (lipid transfer inhibitor protein), smoking effects on, 858-862
- Luteinizing hormone (LH)  
 in older NIDDM men with partial androgen deficiency, 668  
 plasma Lp and, in PM women, 189, 190
- Luteinizing hormone (central) hypothesis of PCOS, 359-361
- LVH (left ventricular hypertrophy), candesartan effects on IR and, 777-781
- LY117018, effects of, on GH secretion, 563-570
- Lyase, *see* Adenosine triphosphate-citrate lyase; Adenosine triphosphate-citrate lyase mRNA; 17 $\alpha$  (alpha)-Hydroxylase/17,20-lyase deficiency
- Lymphocytes, activated CD4<sup>+</sup> and CD8<sup>+</sup> T, in growth factor receptors, 117-122
- Lys109Arg and Gln223Arg polymorphisms, relation between leptin receptor gene, HOMA IR index, serum soluble leptin receptor, serum leptin, lipids and, in Japanese subjects, 879-885
- Lys<sup>9</sup>-for-Glu<sup>9</sup> substitution, effects of GLP-1(7-36) amide, on DPP IV resistance with cellular and metabolic actions similar to GLP-1(9-36) amide and exendin (9-39), 252-259
- Lysine (Lys)  
 plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392



Lysine (Lys) (*Continued*)

*see also* Lys109Arg and Gln223Arg polymorphisms; Lys<sup>9</sup>-for-Glu<sup>9</sup> substitution

Macrophages, effects of caffeine on alveolar, via its effects on synthesis of cAMP and prostaglandin, 687-692

Macrovascular diseases in NIDDM, serum PON1 polymorphism, plasma oxidized LDL level and, 298-300

## Magnesium (Mg)

erythrocyte levels in, and metabolism of, 660-665

in primary hyperthyroidism, 1102

relationship of intracellular cord blood platelet, to birth weight, 1544-1547

serum, in adrenal insufficiency, 1252

Male adolescents, Japanese obese hyperuricemic, 448-453

## Male subjects

transgenic, glucose intolerance development in, with GSK-3 $\beta$  overexpression in skeletal muscle, 1322-1330

*see also* Male adolescents; Men

Malic enzyme (ME) mRNA (messenger ribonucleic acid),

upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065

Malonyl dialdehyde (MDA), DM effects on, 66-72

Maltose dextrin in obesity-inducing HF diet, 783

Margarine, PP TG response to, 621, 622

Matrix metalloproteinase-9 (MMP-9), -1562C $\rightarrow$ T polymorphism of, associated with BMD in Japanese men, 135-137

Maturity-onset hyperinsulinemia and hyperglycemia (diabesity), CL316,243 effects on, in polygenic obesity, 799-808

Maximum oxygen uptake, *see*  $\dot{V}O_{2max}$

MBF (medullary blood flow), tempol effects on hypertension and hyperinsulinemia based on increase of, 1305-1308

MCP-1, *see* Monocyte chemoattractant protein-1

MCR (metabolic clearance rate) of hypogonadic men, 1175

MC3T3-E1 osteogenic cells, strontium ranelate-induced bone matrix mineralization in, 532-537

MDA (malonyl dialdehyde), DM effects on, 66-72

ME (malic enzyme) mRNA (messenger ribonucleic acid),

upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065

Medullary blood flow (MBF), tempol effects on hypertension and hyperinsulinemia based on increase of, 1305-1308

Medullary collecting duct, inner, ET effects on AVP<sub>2</sub> mRNA in, 1177-1183

Melanoma-associated cachexia, ghrelin mRNA in, 84-88

## Men

with CAD, *see* Coronary artery disease in men

cortisol in, *see* Cortisol in men

erythrocyte membrane lipid composition in, associated with arachidonic acid and insulin sensitivity, 571-577

HC diet effects on atherogenic LDL particles in, 823-830

Japanese, *see* Japanese men, polymorphism in

non-obese, adipose tissue as marker of fibrinogen level in, 994-998

normoglycemic, fasting glucose concentration and leukocyte ABCA1 gene expression in, 17-21

obese, *see* Men, obese

older NIDDM, partial androgen deficiency and glycemic control in, 666-672

plasma vitamin K transport and deuterium-labeled collard green intake by, 215-221

spinal cord-injured, MS in, 1372-1377

young, *see* Young men

*see also* Sex entries beginning with term: Male and specific conditions

## Men, obese

Japanese, Ob-R gene polymorphism associated with IR in, 650-654

NEFA effects on hepatic glycogen content in, 886-893

Mental stress, and lipolysis activation in IR, 1199

Messenger ribonucleic acid, *see* mRNA

Met, *see* Methionine

Metabolic clearance rate (MCR) of hypogonadic men, 1175

## Metabolic rate (MR)

effects of dietary zinc restriction on substrate utilization and, 727-732

resting, in advanced NIDDM nephropathy, 1395-1398

Metabolic research, accuracy and precision of peristaltic and syringe pumps in, compared, 875-878

Metabolic risk in non-obese premenopausal women, abdominal and liver AT and, 1066-1071

## Metabolic syndrome (MS)

in CHD, low-grade inflammation and, 852-857

CRH test of relation between central HPA dysfunction and, 720-726

exercise effects on abdominal AT, body composition and, in PM women on or not on ERT, 1192-1196

fatty acid TG content and VAT accumulation associated with components of, 310-317

lifestyle effects on risk for, 1503-1511

with obesity, *see* Metabolic syndrome with obesity

in SCI men, 1372-1377

## Metabolic syndrome (MS) with obesity

and chronic renal disease, apo A-1, apo B-48, and apo B-100 metabolism in, 1255-1261

serum TNF- $\beta$  and components of, in obese adolescents, 863-867 in treatment-seeking subjects, 435-440

## Metformin (dimethylbiguanide)

effects of, on multiple CV disease risk factors in NIDDM, 159-164

effects of, Pancreas Tonic and, in NIDDM, compared, 1169 for obese PCOS women, 366, 368, 370

## Methionine (Met)

in HF diet, 1033

plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392

[<sup>2</sup>H<sub>3</sub>]-3-Methylhistidine, contractile skeletal muscle protein breakdown estimated with, 1076-1080

Mg, *see* Magnesium

MI (myocardial infarction), risk factors for, as predictors of CAD in men, 324-329

## Microalbuminuria

in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641

*see also* Microalbuminuria in IR; Microalbuminuria in NIDDM

## Microalbuminuria in IR

with cardiovascular autonomic dysfunction and IR, 1359-1364 cilostazol effects on, 1405-1410

## Microalbuminuria in NIDDM

and in at-risk for NIDDM subjects, 228

with cardiovascular autonomic dysfunction and IR, 1359-1364 glycemic control effects on, 353-357

Microangiopathies, diabetic, in NIDDM, serum PON1

polymorphism, plasma oxidized LDL level and, 301

Micromolar concentrations of Cu, effects of, on endothelium-dependent on aorta relaxation in DM, 1315-1321

Mild hypercholesterolemia, diet composition as determinant of plasma ADMA in, 1072-1075

- Mildly elevated plasma cholesterol (C), wheat germ policosanols effects on, 1309-1314
- Mineral content, changes in bone, after RYBG and ASGB for morbid obesity, 918-921
- Mineral density, *see* Bone mineral density
- Mineral mix in HF diet, 1033
- Mineralization, *see* Bone mineralization
- Minimal model analysis
- population and individual, of FSIVGTT, 1349-1354
  - of relationship between BMI, beta-cell function, and IR, 1462-1466
  - of weight loss effects in obese subjects with normal FPG or IGT on IR and insulin release, 1095-1100
- Mixed hyperlipidemia, effects of S-2E and PRV in, compared, 680-685
- MMP-9 (matrix metalloproteinase-9), -1562C→T polymorphism of, associated with BMD in Japanese men, 135-137
- MNCs (mononuclear cells), differential effects of glucose and alcohol on ROS generation and intranuclear nuclear factor- $\kappa$ B in, 330-334
- MNH-01 formula (palatinose-based liquid balanced formula), effects of, on PP hyperglycemia and hyperinsulinemia, 977-983
- Moderate exercise
- effects of soy isoflavone and, on AT accumulation and bone loss in postmenopausal subjects, 942-948
  - insulin concentration and CHO requirement in IDDM during, 1126-1130
- Moderate weight loss by obese women
- effects of sibutramine or orlistat treatment and, on waist circumference and serum adipocytokines, 430-434
  - by insulin-resistant obese women, effects of, on plasma adiponectin, 280-283
- Modified insulin (hexyl-insulin monoconjugate 2), oral, for IDDM, 54-58
- Monocyte chemoattractant protein-1 (MCP-1)
- effects of insulin therapy of NIDDM on, 695, 697
  - effects of  $\omega$ -3 PUFAs alone or with *all-rac* on, 238
- Monodrug therapy, adiponectin, C-reactive protein and, in obesity and NIDDM, 1454-1461
- Mononuclear cells (MNCs), differential effects of glucose and alcohol on ROS generation and intranuclear nuclear factor- $\kappa$ B in, 330-334
- Monophosphate, *see* Adenosine monophosphate
- Monounsaturated fatty acids (MUFAs)
- CV disease risk factors and intake of, 1439
  - intake of, by prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia and by their first-degree relatives, 51
  - in MNH-01 formula, 978
  - plasma ADMA in mild hypercholesterolemia and, 1073
  - WPG effects and, 1312
- Morbid obesity, changes in BMC after RYBG and ASGB for, 918-921
- Morbidity of STZ-DM, effects of oral vanadate with tea extract on, 1145-1151
- Morphometry of early NIDDM nephropathy subjects, pioglitazone effects on, 1476
- Mortality
- late-onset propionic acid, 809-810
  - low CHD, in Spain, plasma HDL-C level in Spanish children and, 1045-1047
  - STZ-DM-associated, effects of oral vanadate with tea extract on, 1145-1151
- MR, *see* Metabolic rate
- mRNA (messenger ribonucleic acid)
- apo A-1, in HepG2 cells, glucosamine effects on, 766-771
  - AVP<sub>2</sub>, in IMCD, ET effects on, 1177-1183
  - CRABP-1, effects of, on CYP26-mediated catabolism of A11-*trans* retinoic acid and cell proliferation in head and neck squamous cell carcinoma, 1007-1012
  - effects of epinephrine and ionomycin on protein release and IL-6, in SM, compared, 1492-1495
  - fibronectin, *see* Fibronectin mRNA
  - ghrelin peptide, in melanoma-associated cachexia, 84-88
  - glucocorticoid receptor, leptin effects on, in STZ-DM, 1560-1561
  - GLUT<sub>4</sub>, exercise effects on glycogen synthase activity and, but not on insulin signaling in overweight nondiabetic and NIDDM subjects, 1233-1242
  - GSK-3 $\beta$ , in skeletal muscle of transgenic male subjects, 1322-1330
  - 11 $\beta$ -HSD1, *see* 11 $\beta$ -Hydroxysteroid dehydrogenase 1 mRNA
  - leptin, fenofibrate effects on, in ovariectomized subjects, 1286
  - leukocyte *ABCA1*, relationship of fasting glucose to, in normoglycemic men, 19
  - PPAR $\alpha$ , *see* Peroxisome proliferator-associated receptor  $\alpha$  mRNA
  - PPAR $\gamma$ , effects of restricted diet on, 30-31
  - preproglucagon, palmitate effects on, 1445-1446
  - renal CHPT, in NIDDM, 842-846
  - renal 11 $\beta$ -HSD2, responsiveness of body weight and, to 11 $\beta$ -HSD inhibition by glycyrrhetic acid, 600-606
  - renal TGF- $\beta$ <sub>1</sub>, fibronectin, and collagen, cilostazol effects on, in IR, 1405-1410
  - steroidogenic acute regulatory protein, low temperature blocking testosterone production and stimulatory effects of hCG on, but not on cAMP production in tumor cells, 955-958
  - TGF- $\beta$ 1 endothelin-1, effects high glucose and insulin on, in cardiac fibroblasts, 712
  - UCP-1, *see* Uncoupling protein-1 mRNA
  - UCP-2, adipin, and myostatin, in diabetes, CL316,243 effects on, 804
  - UCP-3, C316,243 effects on, in diabetes, 804
  - upregulation of lipogenic enzyme and SREBP-1, in WAT of CRF subjects, 1060-1065
- MS, *see* Metabolic syndrome
- MUFAs, *see* Monounsaturated fatty acids
- Multiphasic profile of NEFAS, unresponsiveness of, to exogenous insulin during FSIVGTT, 1202-1207
- Multiple cardiovascular (CV) disease, metformin effects on risk factors for, 159-164
- Muscle, *see* Muscle glutamine; Skeletal muscle *and entries beginning with element: Myo-*
- Muscle glutamine (Gln), changes in release of, during normoglycemic hyperinsulinemia and hypoglycemia, 1208-1214
- Mutations
- of CYP17 genes in 17( $\alpha$ )-hydroxylase/17,20-lyase deficiency, 1527-1531
  - hypoxanthine phosphoribosyl transferase point, responsible for hyperuricemia in women, 1500-1502
  - triple *HNF-4 $\alpha$*  gene, associated with early-onset NIDDM in Filipino family, 959-963
  - see also* Polymorphism
- Myocardial infarction (MI), risk factors for, as predictors of CAD in men, 324-329
- Myocytes
- cardiac, high glucose and insulin effects on protein synthesis in, 710-715
  - DNA synthesis from different pathways in fibroblasts, 128-133

- Myofibrillar protein in skeletal muscle, effects of dietary protein restriction on conservation of, 340-347
- Myostatin mRNA (messenger ribonucleic acid), CL316,243 effects on, in diabetes, 804
- Myristic acid  
effects of, on Sp1-induced apo A-I promoter, 1343  
TG content of, in MS, 312
- Na (sodium), serum, beer ingestion and sauna bathing effects on urinary excretion of, 774
- Nateglinide in NIDDM  
effects of glyburide and, compared, 1331-1335  
with obesity, effects of pioglitazone and, on beta-cell mass loss and insulin secretion in, 488-494
- Natriuretic peptide, brain, in IR with LVH, candesartan effects on, 778-780
- NE, *see* Norepinephrine
- NEFAs, *see* Nonesterified fatty acids
- Neonates, *see* Newborns
- Nephropathy  
chronic, with obesity and MS, apo A-I, apo B-48, and apo B-100 metabolism in, 1255-1261  
NIDDM, *see* Non-insulin-dependent diabetes mellitus nephropathy
- Neuropathy, peripheral, in NIDDM, serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299
- Neutrophils, dietary oil effects on FA composition in, 59-65
- Newborns (infants)  
with respiratory distress and sepsis, circulating ACTH and cortisol concentrations in normal appropriate-for-gestational-age versus, 209-214  
and 3,3'-T<sub>2</sub>S in neonatal life, 538-543
- NF $\kappa$ B (nuclear factor- $\kappa$ B), intranuclear, differential effects of glucose and alcohol on ROS generation and, in mononuclear cells, 330-334
- Nicotine  
acute effects of, on serum glucose, insulin, GH, and cortisol, 578-582  
*see also* Smoking
- NIDDM, *see* Non-insulin-dependent diabetes mellitus
- Nighttime hypoglycemia, differences between daytime and, in counterregulation of, 894-898
- Nitrate/nitrite (No<sub>x</sub>)  
OGTT of plasma, in sedentary and endurance training subjects, 673-679  
renal cortex, effects of different glucose levels on, 868-874
- Nitric oxide (NO)  
effects of different glucose levels on arginase activity and production of, in renal cortex, 868-874  
serum concentration of TNF soluble receptors, TNF- $\beta$  and, in overweight and obese women, 1268-1273
- Nitric oxide synthase (NOS)  
effects of inhibition of, on pioglitazone action on insulin in subjects on high-sucrose diet, 22-27  
inducible and endothelial, in early NIDDM nephropathy, 1474  
renal cortex, effects of different glucose levels on, 868-874  
and smoking-ADMA-obesity relationship, 1575, 1576
- Nitrite, *see* Nitrate/nitrite
- Nitrogen, *see* BUN
- NN414, effects of DZ and, on glucose tolerance and lipids in obesity, compared, 441-447
- NO, *see* Nitric oxide
- NO-1886, effects of, on fatty liver in STZ-DM subjects due to high-fat diet, 260-263
- Noncirrhotic subjects, DCA-induced hypolactatemia in, 1087-1094
- Nondiabetic subjects  
LSF effects on glucose-stimulated insulin secretion in, 290-296  
overweight, effects of exercise on GLUT<sub>4</sub> mRNA and glycogen synthase activity in, but not on insulin signaling, 1233-1242  
pituitary response to exercise by nondiabetic smokers, 1140-1144
- Nonesterified fatty acids (NEFAs; free fatty acids)  
adiponectin regulation by, 790-793  
in adult CF, insulin regulating kinetics of, 1467-1472  
in hypercholesterolemia, serum LPL concentration and, 528  
insulin regulating kinetics of, in adult cystic fibrosis with impaired glucose tolerance, 1467-1472  
in IR, and cilostazol effects on microalbuminuria, 1407  
isotretinoin effects on, 6  
MHN-01 effects on concentration of, 981  
in obesity, *see* Nonesterified fatty acids in obesity  
oxidation of, *see* Oxidation, NEFA  
plasma, *see* Plasma nonesterified fatty acids  
short-term effects of, on glucagon secretion at low-to-normal glucose concentrations, 1443-1448  
smoking effects on, 860  
unresponsiveness of multiphasic profile of, to exogenous insulin during FSIVGTT, 1202-1207
- Nonesterified fatty acids (NEFAs; free fatty acids) in obesity  
effects of, on hepatic glycogen content in obese men, 886-893  
effects of weight loss by obese subjects with normal FPG or IGT on, 1097  
fasting serum, in obese NIDDM subjects, bezafibrate effects on, 407-408  
in obese PM women, fluvastatin effects on, 736
- Nonglycated low-density lipoprotein (LDL), susceptibility to oxidation of glycated LDLs and, in IDDM, compared, 969-975
- Non-high-density lipoprotein ( $\alpha$  lipoprotein; HDL), utility of, in hemodialyzed subjects, 1013-1015
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus)  
alcohol effects on PP lipemia in, 77-83  
association of corrected QT intervals with carotid artery IMT in, 1152-1157  
coronary heart disease in, *see* Coronary heart disease in NIDDM  
dyslipidemia in, *see* Dyslipidemia in NIDDM  
early-onset, triple mutations of *HNF-4 $\alpha$*  associated with, in Filipino family, 959-963  
glycemic control in, *see* Glycemic control of NIDDM  
HbA<sub>1c</sub> in, *see* HbA<sub>1c</sub> in NIDDM  
hypertension in, *see* Hypertension in NIDDM  
with IGT, *see* Impaired glucose tolerance in NIDDM  
in Japanese subjects, *see* Japanese NIDDM subjects  
LDL oxidation in, *see* Non-insulin-dependent diabetes mellitus, LDL oxidation in  
microalbuminuria in, *see* Microalbuminuria in NIDDM  
in non-obese Korean subjects, BMI as determining factor of IR degree in, 141-146  
with obesity, *see* Obesity, NIDDM with  
overweight subjects with, effects of exercise on GLUT<sub>4</sub> mRNA and glycogen synthase activity in, but not on insulin signaling, 1233-1242  
Pancreas Tonic effects in, 1166-1173  
polymorphism in, *see* Non-insulin-dependent diabetes mellitus, polymorphism in  
renal CHPT in, 842-846  
risk factors for CV disease in, *see* Risk factors for CV disease in NIDDM  
stevioside effects on, 73-76

- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus) (*Continued*)  
*see also* Non-insulin-dependent diabetes mellitus nephropathy;  
 Non-insulin-dependent diabetes mellitus retinopathy
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus), LDL oxidation in  
 correlation between vascular complications, plasma oxidized LDL level, serum PON1 polymorphism in, 297-302  
 LDL susceptibility to oxidation and circulating cell adhesion molecules in young subjects with NIDDM parents, 755-759
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus), pioglitazone effects on  
 on beta-cell mass loss prevention and insulin secretion in obese subjects, 488-494  
 effects of NOS inhibition and, on insulin action in subjects on high-sucrose diet, 22-27  
 on microalbuminuria, 353-357
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus), polymorphism in  
 ACP1 polymorphism-ADA interaction in, 995-1001  
 correlation between vascular complications, plasma oxidized LDL level, and serum PON1 polymorphism in, 297-302
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus) nephropathy  
 advanced, resting metabolic rate in, 1395-1398  
 incipient, in Japanese NIDDM subjects, G276T adiponectin polymorphism in, 1223-1226  
*see also* Non-insulin-dependent diabetes mellitus nephropathy, pioglitazone effects in
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus) nephropathy, pioglitazone effects in  
 on carotid artery IMT and stiffness in, 1382-1386  
 in early NIDDM nephropathy, 1473-1479
- Non-insulin-dependent diabetes mellitus (NIDDM; type 2 diabetes mellitus) retinopathy  
 microalbuminuria and, 354  
 postprandial plasma fructose in, 583-588  
 serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299
- Non-obese subjects  
 apo A-1, apo B-48, and apo B-100 metabolism in, 1255-1261  
 hepatic 11 $\beta$ -HSD1 and renal 11 $\beta$ -HSD2 mRNA responsiveness to 11 $\beta$ -HSD inhibition by glycyrrhetic acid in, 600-606  
 IGT, insulin secretion and GLP-1 and glucose-dependent insulinotropic polypeptide after glucose ingestion by, 624-631  
 in IR, *see* Non-obese subjects, insulin-resistant  
 non-obese men, AT as marker of fibrinogen level in, 994-998  
 preservation of circadian rhythm of serum insulin concentration at low plasma glucose during fasting by, 1449-1453  
*see also* Non-obese women
- Non-obese subjects, insulin-resistant  
 and HF diet effects on insulin-resistant lipolysis in skeletal muscle, 794-798  
 in NIDDM Korean subjects, BMI as determining factor in IR degree in, 142-146
- Non-obese women  
 clinical manifestations of PCOS in, 365-367  
 premenopausal, abdominal and liver AT and metabolic risk in, 1066-1071
- Nonthyroidal diseases  
 3,3'-T<sub>2</sub>S in, 538-543  
*see also specific conditions*
- Noradrenaline, *see* Norepinephrine
- Norepinephrine (NE; noradrenaline)  
 effects of exercise on inhibitory effects of, on insulin secretion, 1424-1432  
 4AP effects on delayed vasorelaxation of, by troglitazone, 147-152  
 nighttime and daytime differences in counterregulation of hypoglycemia and, 895  
 in obese men, NEFA effects on levels of, 892  
 plasma, *see* Plasma norepinephrine
- Normal fasting plasma glucose (FPG), effects of weight loss by obese subjects with IGT or, on insulin release and IR, 1095-1100
- Normal glucose tolerance, insulin release and secretion in and effects of weight loss by obese subjects with, on insulin release, 1095-1100  
 and insulin sensitivity in LBW Pima Indians with, 904-911
- Normocholesterolemia  
 daytime hypertriglyceridemia and, in prematurely atherosclerotic subjects and in their first-degree relatives, 49-53  
 wheat germ policosanols effects on, 1309-1314
- Normoglycemic hyperinsulinemia  
 effects of acute insulin-induced hypoglycemia and, on retinal glucose uptake and ocular glucose metabolism, 1274-1283  
 muscle glutamine release during hypoglycemia and, 1208-1214
- Normoglycemic men, fasting glucose concentration and leukocyte ABCA1 gene expression in, 17-21
- Normoponderal subjects, *see* Non-obese subjects
- NOS, *see* Nitric oxide synthase
- No<sub>x</sub>, *see* Nitrate/nitrite
- Nuclear factor- $\kappa$ B (NF $\kappa$ B), intranuclear, differential effects of glucose and alcohol on ROS generation and, in mononuclear cells, 330-334
- Nutrition, *see* Diet
- Nutritional status of Vietnamese children, apo E polymorphism and, 1518-1519
- O<sub>2</sub>, *see* Oxygenation;  $\dot{V}O_{2max}$
- Obesity  
 adaptive thermogenesis and resistance to, 1417-1423  
 chronic renal disease with MS and, apo A-1, apo B-48, and apo B-100 metabolism in, 1255-1261  
 CV disease risk factors and, 1439  
 effects of *P. yoelli* GPIs on glucose homeostasis in STZ-DM with, 1048-1053  
 fenofibrate effects on hypertriglyceridemia and, in LDL-receptor null subjects, 607-613  
 hepatic 11 $\beta$ -HSD1 and renal 11 $\beta$ -HSD2 mRNA responsiveness to 11 $\beta$ -HSD inhibition by glycyrrhetic acid in, 600-606  
 high-fat diet and, *see* High-fat diet, obesity and hyperinsulinemia and, *see* Hyperinsulinemia, obesity and insulin release in, *see* Insulin release and secretion in obesity  
 insulin sensitivity and, 1109  
 IR and, *see* Insulin resistance in obesity  
 in Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C in, 1054-1059  
 lipids in, *see* Lipid(s) in obesity  
 morbid, changes in BMC after RYBG and ASGB for, 918-921  
 MS with, *see* Metabolic syndrome with obesity  
 NIDDM with, *see* Obesity, NIDDM with  
 omental and subcutaneous AT in, *see* Omental adipose tissue, subcutaneous and, in obese subjects  
 preclinical changes in abdominal aorta of children with, 1243-1246  
 relationship between smoking, ADMA and, 1574-1579  
 weight loss in, *see* Weight loss by obese subjects



Obesity (*Continued*)

*see also* Adolescents, obese; Men, obese; Polycystic ovary syndrome, obesity and; Postmenopausal women, obese; Women, obese

## Obesity, NIDDM with

adiponectin, C-reactive protein, and monodrug therapy in, 1454-1461  
bezafibrate effects on lipids and glucose metabolism in, 405-413  
CL316,243 effects on NIDDM with polygenic obesity, 799-808  
GITS preventing NIDDM in IGT first-degree relatives of obese NIDDM African American subjects, 414-422  
pioglitazone and nateglinide effects on insulin secretion and beta-cell mass loss in, 488-494  
role of HF versus LF diet and caloric intake in development of, 454-457

## Ob-R gene polymorphism associated with IR in Japanese men, 650-654

OCs, *see* Oral contraceptives

## Ocular glucose metabolism, effects of acute insulin-induced hypoglycemia and normoglycemic hyperinsulinemia on retinal glucose uptake and, 1274-1283

OGTT, *see* Oral glucose tolerance test

## 8-OHdG (8-hydroxydeoxyguanosine), hepatic, effects of hypoxia and hypoxic training on levels of, 716-719

## Oil(s)

effects of different dietary, on generation of inflammatory mediators and fatty acid composition in neutrophils, 59-65  
*see also* Oil in HF diet; Olive oil

## Oil in HF diet

soybean, 783  
sunflower, 1033

## Older (elderly) subjects

disabled hospitalized, HHcy in, 1016-1020  
hypertensive, resistance exercise effects on insulin-mediated glucose disposal with minimal effect on TNF- $\alpha$  in, 397-402  
older NIDDM men, partial androgen deficiency and glycemic control in, 666-672

## Oleate, short-term effects of, on glucagon secretion, 1444-1445

## Oleic acid

effects of, on Sp1-induced apo A-I promoter, 1343, 1344  
TG content of, in MS, 312

## Oligomenorrhea in obese PCOS women, 366

## Olive oil (OO)

effects of, on generation of inflammatory mediators and fatty acid composition in neutrophils, 59-65  
PP TG response to, 621, 622

Omega-3 polyunsaturated fatty acids, *see*  $\omega$ -3 Polyunsaturated fatty acids

## Omental adipose tissue (AT), subcutaneous and, in obese subjects proliferation and differentiation of adipocyte precursor cells from obese subjects, compared, 632-637

racial differences in  $\beta$ -adrenergic receptor density in subcutaneous and, in obese women, 247-251

## One-day hindlimb suspension, whole-body and skeletal muscle IR development after, 1215-1222

Onset of IDDM, effects of glycemic control on F<sub>2</sub> isoprostanol level at, 1118-1120OO, *see* Olive oil

## Oral contraceptives (OCs)

effects of, on glucoregulatory responses to exercise, 348-352  
for PCOS in obese women, 366, 370

## Oral glucose tolerance test (OGTT)

in CF with impaired glucose tolerance, 1468  
exercise and, *see* Oral glucose tolerance test of exercising subjects

Oral glucose tolerance test (OGTT) (*Continued*)

insulin sensitivity and, *see* Oral glucose tolerance test, insulin sensitivity and  
of lisofylline effects on glucose-stimulated insulin secretion, 290, 291  
nicotine effects on, 578-582  
after 1-day hindlimb suspension, 1217  
plasma nitrate/nitrite assessment with, in sedentary subjects, 673-679  
of stevioside effects on glucose transport in skeletal muscle of insulin-resistant subjects, 101-103, 106  
of young men with hypertensive parents, 471  
*see also* Impaired glucose tolerance

## Oral glucose tolerance test (OGTT), insulin sensitivity and estimates of insulin sensitivity based on, 1107-1112

normal, in LBW Pima Indians, 904-911  
of stevioside effects on glucose transport in skeletal muscle of insulin-sensitive subjects, 101-103, 106

## Oral glucose tolerance test (OGTT) of exercising subjects

of exercising NIDDM women, 284, 285, 287  
and OC effects on glucoregulatory responses to exercise, 348-352  
plasma nitrate/nitrite assessment of, 673-679

## Oral modified insulin (hexyl-insulin monoconjugate 2) for IDDM, 54-58

## Oral vanadate with tea extract, effects of, on morbidity and mortality of STZ-DM, 1145-1151

## Organ weight

heart, in liver disease, 965  
kidney, in IR, with microalbuminuria, 1407  
*see also* Liver weight

## Orlistat, effects of moderate weight loss and, on waist circumference and serum adipocytokines in obese women, 430-434

## Ornithine, hyperinsulinemia effects on whole-body synthesis of, in young men, 392

## Osteocalcin, serum, in severe lipodystrophy, leptin replacement therapy effects on, 516

## Osteogenic cells, MC3T3-E1, strontium ranelate-induced bone matrix mineralization in, 532-537

## Ovarian (peripheral) hypothesis of PCOS, 360, 361

## Ovariectomized subjects, fenofibrate effects on white adipose tissue and HF diet-induced weight gain by, 1284-1289

## Overweight

L-carnitine effects on fat oxidation, protein turnover, and body composition in slight, 1001-1006  
concentration of serum TNF soluble receptors, TNF- $\beta$ , and NO in overweight women, 1268-1273  
in nondiabetic and NIDDM subjects, effects of exercise on GLUT<sub>4</sub> mRNA and glycogen synthase activity in, but not on insulin signaling, 1233-1242  
preservation of circadian rhythm of serum insulin concentration at low plasma glucose during fasting by overweight subjects, 1449-1453  
prevalence of IR with associated CV disease risk factors in, 495-499  
*see also* Obesity

## Oxidase, plasma diamine, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41

## Oxidation

AT, L-carnitine effects on fat, in slightly overweight subjects, 1001-1006  
energy substrate, in IDDM, 655-659  
*cis* and *trans* FA, effects of long-term exposure of INS-1 cells to, on insulin secretion and, 1158-1165

Oxidation (*Continued*)

*see also* Oxidation, glucose; Oxidation, LDL; Oxidation, NEFA; Oxidative stress

## Oxidation, glucose

*P yoelli* GPI effects on, in STZ-DM with obesity, 1050  
whole-body, and oral glucose metabolism in born small-for-gestational-age children, 847-851

## Oxidation, LDL

circulating cell adhesion molecules and susceptibility to, in young NIDDM men, 755-759  
of glycated and nonglycated LDLs in IDDM, 969-975  
*see also* Oxidized low-density lipoprotein

## Oxidation, NEFA

R-(+)- $\alpha$ -lipoic acid effects on pyruvate metabolism and, in hepatocytes, 165-173  
*see also* Exercise at cold temperature, NEFA oxidation during

Oxidative stress in NIDDM with obesity, pioglitazone protecting beta cells from, 488-494

## Oxidized low-density lipoprotein (ox-LDL)

smoking-ADMA-obesity relationship and, 1575-1576  
*see also* Oxidation, LDL; Plasma oxidized low-density lipoprotein

Oxygen uptake, *see*  $\dot{V}O_{2\max}$

Oxygenation, renal cortex, water diuresis-induced changes in endothelial function and, in NIDDM and in at-risk for NIDDM subjects, 222-227

P (phosphorus), *see* Serum phosphorus

*P yoelli* (*Plasmodium yoelii*) GPIs (glycosylphosphatidylinositols), effects of, on glucose homeostasis in obese STZ-DM subjects, 1048-1053

PA (plasminogen activator)-antigen, tissue, in NIDDM and at-risk for NIDDM subjects, 224, 226

PAI (plasminogen activator inhibitor)-antigen, in NIDDM and at-risk for NIDDM subjects, 224, 226

PAI-1, *see* Plasminogen activator inhibitor-1

Palatinose-based liquid balanced formula (MNH-01), effects of, on PP hyperglycemia and hyperinsulinemia, 977-983

Palmitate, short-term effects of, on glucagon secretion, 1444-1446

## Palmitic acid

effects of, on Sp1-induced apo A-1 promoter induction, 1343  
TG content of, in MS, 312

Palmitoleic acid, TG content of, in MS, 312

Pancreas, MNH-01 effects on, 981

Pancreas Tonic, effects of, in NIDDM, 1166-1173

## Pancreatic islets

bezafibrate effects on, in obese NIDDM subjects, 408-409, 411  
effects of transplantation of, on serum resistin levels in IDDM, 403-404

*see also* Beta cells

PAO, *see* Paraoxonase

## Paraoxonase (PON1; PAO)

in FCHL,  $\omega$ -3 PUFA effects on levels of plasma HDL<sub>2</sub>-C and, 153-158  
polymorphism of serum, correlation between vascular complications, plasma oxidized LDL level and, in NIDDM, 297-302

## Parathyroid hormone (PTH)

plasma, in adrenal insufficiency, insulin-induced hypoglycemia effects on levels of, 1251-1254

relation of serum, to vitamin D profile in eucalcemia after parathyroidectomy for primary hyperthyroidism, 1101-1106

Parathyroidectomy for primary hyperthyroidism, serum PTH relation to vitamin D profile in eucalcemia after, 1101-1106

## Parent(s)

insulin secretion, insulin sensitivity, and metabolic profile of young men with hypertensive, 469-475

*see also* Children; Parental diabetes mellitus and entries beginning with term: Familial

## Parental diabetes mellitus (DM)

and insulin secretion and sensitivity in normal glucose-tolerant LBW Pima Indians, 906

NIDDM, LDL susceptibility to oxidation and circulating cell adhesion molecules in young adult offspring of, 755-759

Parenteral nutrition, total, lipid-containing, regulation of serum lipid EFAD in short-gut subjects on, 273-277

Partial androgen deficiency in aging NIDDM men, glycemic control and, 666-672

PCOS, *see* Polycystic ovary syndrome, obesity and PDH (pyruvate dehydrogenase), DM effects on, 66-72

Pentols, plasma, in CTX, 558

PEPCK (phosphoenolpyruvate carboxykinase), hepatic, effects of exercise on hepatic insulin signaling and activity of, in diabetes-prone subjects, 836-841

Peptides, *see specific peptides*

Peripheral (ovarian) hypothesis of PCOS, 360, 361

Peripheral neuropathy in NIDDM, serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299

Peristaltic pumps in metabolic research, accuracy and precision of, 875-878

Peroxides, lipid, carotid atherosclerosis, vascular dementia and, 477, 479

Peroxisome proliferator-associated receptor  $\alpha$  (PPAR $\alpha$ ) mRNA (messenger ribonucleic acid)

CL316,243 effects on, in diabetes, 804

fenofibrate effects on, *see* Peroxisome proliferator-associated receptor mRNA, fenofibrate effects on

Peroxisome proliferator-associated receptor  $\alpha$  (PPAR $\alpha$ ) mRNA (messenger ribonucleic acid), fenofibrate effects on

in LDLR-null subjects, 610

in ovariectomized subjects, 1286

Peroxisome proliferator-associated receptor  $\gamma$  (PPAR $\gamma$ )

effects of, on glucocorticoid receptor signaling and, in AT, 28-36  
FFPS-410 effects on activation of, 1533

*see also* Pro12Ala polymorphism of PPAR $\gamma$

Peroxisome proliferator-associated receptor  $\gamma$ 2, *see* Pro12Ala polymorphism of PPAR $\gamma$ 2

PG (prostaglandin), caffeine effects on alveolar macrophages via its effects on synthesis of cAMP and, 687-692

6-PGDH (6-phosphogluconate-dehydrogenase) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065

PGE<sub>1</sub> (prostaglandin E<sub>1</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177

PGE<sub>2</sub> (prostaglandin E<sub>2</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177

PGI<sub>2</sub> (prostaglandin I<sub>2</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177

Phenylalanine (Phe), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392

Phosphatase, *see* Acid phosphatase locus 1; Alkaline phosphatase; Biphosphatase; Glucose-6-phosphatase

## Phosphate

serum, in adrenal insufficiency, 1252

*see also* Adenosine monophosphate; Adenosine triphosphate-citrate lyase; Adenosine triphosphate-citrate lyase mRNA; Glucose-6-phosphate dehydrogenase mRNA and entries beginning with element: Phosph-

- Phosphoenolpyruvate carboxykinase (PEPCK), hepatic, effects of exercise on hepatic insulin signaling and activity of, in diabetes-prone subjects, 836-841
- 6-Phosphogluconate-dehydrogenase (6-PGDH) mRNA (messenger ribonucleic acid), upregulation of SREBP-1 and, in WAT of CRF subjects, 1060-1065
- Phospholipase D (PLD), serum glycosylphosphatidylinositol-specific, IR and increased, 138-139
- Phospholipid(s) (PLs)  
in FCHL,  $\omega$ -3 PUFA effects on, 154  
serum, regulation of EFAs in, in short-gut subjects on PL-containing TPN, 273-277  
smoking effects on, 860  
in soccer players, 1264
- Phospholipid transfer protein (PLTP), smoking effects on, 858-862
- Phosphoribosyl transferase, point mutation in hypoxanthine, responsible for hyperuricemia in women, 1500-1502
- Phosphorus, *see* Serum phosphorus
- Phylloquinone (vitamin K), transport of plasma, in men consuming deuterium-labeled collard greens, 215-221
- Physical activity  
effects of interaction between FABP-4 and PPAR $\gamma$ -activated receptor polymorphism and, 305, 306  
*see also* Exercise
- Pima Indians, LBW, with normal glucose tolerance, insulin secretion and insulin sensitivity in, 904-911
- Pinealectomy (PINX), effects of, on AT adaptability to fasting, 500-506
- Pioglitazone, *see* Non-insulin-dependent diabetes mellitus nephropathy, pioglitazone effects in
- Pituitary response to exercise by nondiabetic and IDDM smokers, 1140-1144
- PK (protein kinase), HF diet effects on adenosine monophosphate-activated glucose transport in SM, 914
- PKB $\alpha$  (protein kinase B $\alpha$ )/Akt1, hepatic apo B production regulated by insulin independently of mass or activity of, 228-236
- PL(s), *see* Phospholipid(s)
- Plasma adiponectin  
adiponectin levels and, 2  
effects of moderate weight loss by insulin-resistant obese women on, 280-283  
effects of rosiglitazone on insulin sensitivity, insulin secretion and, in IGT first-degree relatives of African-American NIDDM subjects, 1552-1557  
in NIDDM Japanese subjects with incipient nephropathy, 1224
- Plasma adrenocorticotropin hormone (ACTH; corticotropin)  
effects of restricted diet on, 30  
leptin effects on, in STZ-DM, 1560
- Plasma alanine (Ala), effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- Plasma alanine aminotransferase (ALT), NO-1886 effects on, in STZ-DM, 261
- Plasma albumin in disabled hospitalized older subjects, HHcy and, 1018
- Plasma alcohol, beer ingestion and sauna bathing effects on, 774-775
- Plasma amino acids (AA), concentrations of, and whole-body protein synthesis in young men, 388-396
- Plasma apolipoprotein (apo)  
in HL deficiency, 521-522  
*see also specific apolipoproteins*
- Plasma apolipoprotein A-1 (apo A-1)  
in HL deficiency, 522-524  
in PM and premenopausal women, sex steroids and, 189
- Plasma apolipoprotein A-2 (apo A-2) in HL deficiency, 522-524
- Plasma apolipoprotein B (apo B) in PM and premenopausal women, sex steroids and, 189
- Plasma apolipoprotein C-3 (apo C-3) polymorphisms in IDDM, 1296-1304
- Plasma aspartate aminotransferase (AST), NO-1886 effects on, in STZ-DM, 261
- Plasma asymmetric dimethylarginine (ADMA), diet composition as determinant of, in mild hypercholesterolemia, 1072-1075
- Plasma ceruloplasmin, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41
- Plasma cholestanol in CTX, 558
- Plasma cholesterol (C)  
in CT, 558  
in Ecuadoran Amazon Shur women, 1356  
ileal bile transport inhibition effects on, through hepatic farnesoid receptor inactivation and cholesterol 7 $\alpha$ -hydroxylase stimulation, 927-932  
normal or mildly elevated, wheat germ policosanols effects on, 1309-1314  
in PM and premenopausal women, sex steroids and, 189  
PP, in NIDDM, alcohol effects on, 79  
total, *see* Total plasma cholesterol
- Plasma cholesteryl ester transfer protein (CETP), smoking effects on, 858-862
- Plasma corticosterone, effects of 11 $\beta$ -HSD inhibition by glycyrrhetic acid on, 602
- Plasma corticotropin (adrenocorticotropin hormone), effects of restricted diet on, 30
- Plasma cortisol (hydrocortisone) in adrenocortical disorders, 89-94
- Plasma C-reactive proteins (CRP), association between lifestyle, cardiovascular risk factors and, 1436-1442
- Plasma diamine oxidase, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41
- Plasma endothelin (ET) in DM, relation between concentration of plasma VEGF, glycemic control and, 550-555
- Plasma epinephrine (adrenaline), leptin effects on, in STZ-DM, 1560
- Plasma fibrinogen in IDDM, and oxidation of glycated and nonglycated LDLs, 970
- Plasma fructose (F), postprandial, in NIDDM retinopathy, 583-588
- Plasma glucagon (Glc; hyperglycemic-glycogenolytic factor) in Ecuadoran Amazon Shur women, 1356
- Plasma glucose  
in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089  
in DM, *see* Plasma glucose in DM  
in Ecuadoran Amazon Shur women, 1356  
effects of ATPCL inhibitors on, 68  
fasting, *see* Fasting plasma glucose  
HF diet and reduced glucose transport in SM and, 913  
in hyperinsulinemia, *see* Plasma glucose in hyperinsulinemia  
isotretinoin effects on, 6  
in lipodystrophic HIV-infected subjects, 1567  
in obesity, NN414 and DZ effects on, compared, 444  
preservation of circadian rhythm of serum insulin concentration at low concentration of during fasting by lean and overweight subjects, 1449-1453  
steady-state, *see* Steady-state plasma glucose in IR
- Plasma glucose in DM  
effects of ATPCL inhibitors on, 68  
in IDDM, *see* Plasma glucose in IDDM  
in NIDDM, *see* Plasma glucose in NIDDM in STZ-DM, NO-1886 effects on, 261
- Plasma glucose in hyperinsulinemia  
with hypertension, 1306

- Plasma glucose in hyperinsulinemia (*Continued*)  
 in young men, whole-body protein synthesis and, 391
- Plasma glucose in IDDM  
 HIM2 effects on, 56-57  
 relationship between interstitial glucose and, 1487
- Plasma high-density lipoprotein ( $\alpha$  lipoprotein; HDL)  
 in PM and premenopausal women, sex steroids and, 189  
*see also* Plasma high-density lipoprotein-cholesterol
- Plasma high-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C)  
 effects of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol on, 237  
 HF/HC diet effects on, 819  
 high, in Spanish children, and low CHD mortality in Spain, 1045-1047  
 in HL deficiency, 522
- Plasma high-density lipoprotein<sub>2</sub>-cholesterol ( $\alpha$  lipoprotein<sub>2</sub>-cholesterol; HDL<sub>2</sub>-C),  $\omega$ -3 PUFA effects on, in FCHL, 153-158
- Plasma high-density lipoprotein<sub>3</sub>-cholesterol ( $\alpha$  lipoprotein<sub>3</sub>-cholesterol; HDL<sub>3</sub>-C),  $\omega$ -3 PUFA effects on levels of, in FCHL, 154, 155
- Plasma homocysteine (Hcy), effects of elevated, on endothelial function recovery after denudation of carotid arteries, 760-765
- Plasma hydrocortisone (cortisol) in adrenocortical disorders, 89-94
- Plasma 7 $\alpha$ -hydroxy-4-cholesten-3-one, as marker for hepatic bile synthesis, dietary cholesterol and, 42-48
- Plasma 27-hydroxycholesterol, as marker for hepatic bile synthesis, dietary cholesterol and, 42-48
- Plasma hypoxanthine, sauna bathing and beer ingestion effects on concentration of, 772-776
- Plasma insulin  
 in Ecuadoran Amazon Shur women, 1356  
 and GSK-3 $\beta$  in transgenic subjects, 1328  
 HF diet effects on, 913  
 isotretinoin effects on, 6  
 leptin effects on, in STZ-DM, 1559  
 in NIDDM, *see* Plasma insulin in NIDDM  
 NOS inhibition effects on pioglitazone action on, in subjects on high-sucrose diet, 23  
 in obesity, *see* Plasma insulin in obesity
- Plasma insulin in NIDDM  
 and in at-risk for NIDDM subjects, 224, 226  
 with obesity, effects of LF versus HF diet and caloric intake on, 456
- Plasma insulin in obesity  
 with NIDDM, effects of LF versus HF diet and caloric intake on, 456  
 NN414 effects on, 443, 444  
 with STZ-DM, *P yoelli* GPI effects on, 1050
- Plasma intercellular adhesion molecule-1 (ICAM-1), effects of red and white wine on, in CAD men, 318-323
- Plasma interleukin-6 (IL-6), effects of red and white wine on, in CAD men, 318-323
- Plasma intermediate-density lipoprotein (IDL) in PM and premenopausal women, sex steroids and, 189
- Plasma isoleucine (Ile)  
 effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392  
 effects of dietary proline with and without glucose on concentration of, 244
- Plasma leptin  
 effects of glycyrrhetic acid 11 $\beta$ -HSD inhibition on, 602, 604
- Plasma leptin (*Continued*)  
 in obesity, NN414 and DZ effects on, compared, 443, 444
- Plasma leucine (Leu)  
 effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392  
 effects of dietary proline with and without glucose on, 244
- Plasma lipids  
 NO-1886 effects on, in STZ-DM, 261  
 in obesity, NN414 and DZ effects on, compared, 443  
 in PM women, effects of moderate exercise and soy isoflavone on, 945  
 relationship of apo E polymorphism to, in Vietnamese children, 1517-1521  
*see also specific plasma lipids*
- Plasma lipoprotein (Lp)  
 relationship of apo E polymorphism to, in Vietnamese children, 1517-1521  
 sex steroids and, in women, 187-192
- Plasma lipoprotein(a) [Lp(a)] in IDDM, and oxidation of glycated and nonglycated LDLs, 970
- Plasma low-density lipoprotein ( $\gamma$  lipoprotein; LDL)  
 correlation between vascular complications, serum PON1 polymorphism and, 297-302  
 particle diameter and clearance of, 483-487  
 in PM and premenopausal women, sex steroids and, 189  
*see also* Plasma low-density lipoprotein-cholesterol; Plasma oxidized low-density lipoprotein
- Plasma low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C)  
 anti-inflammatory effects of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol on, 237  
 HF/HC diet effects on, 819  
 in HL deficiency, 522, 523  
 in Spanish children, 1046
- Plasma methionine (Met), effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- Plasma nitrate/nitrite, OGTT assessment of, in sedentary subjects and after endurance training, 673-679
- Plasma nonesterified fatty acids (NEFAs; free fatty acids)  
 acipimox-induced reduction of, during exercise at cold temperature, 1131-1135  
 in obesity, NN414 and DZ effects on, compared, 444  
 regulation of, in IR, 1197-1201  
 restricted diet effects on, 30  
 stevioside effects on, 102
- Plasma norepinephrine (NE)  
 leptin effects on, in STZ-DM, 1560  
 in NIDDM with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1362
- Plasma oxidized low-density lipoprotein (ox-LDL)  
 correlation between vascular complications, serum PON1 polymorphism, and levels of, in NIDDM, 297-302  
 serum HDL-C level effects on association between CAD and, in men, 423-429  
 and smoking-ADMA-obesity relationship, 1575, 1576
- Plasma parathyroid hormone (PTH) in adrenal insufficiency, insulin-induced hypoglycemia effects on levels of, 1251-1254
- Plasma pentols in CTX, 558
- Plasma  $\omega$  (omega)-3 polyunsaturated fatty acids (PUFAs), anti-inflammatory effects of, alone or with *all-rac*  $\alpha$ -tocopherol, 236-240
- Plasma proline (Pro), effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392



- Plasma protein, total, beer ingestion and sauna bathing effects on, 774
- Plasma purine bases, sauna bathing and beer ingestion effects on concentration of, 772-776
- Plasma 25-tetrol in CTX, 558
- Plasma triacylglycerol (TAG) during exercise at cold temperature, 204
- Plasma triglycerides (TGs)
- in Ecuadoran Amazon Shur women, 1356
  - effects of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol on, 237
  - fasting, pioglitazone effects on, 489-490
  - in HL deficiency, 522
  - in IDDM, *see* Plasma triglycerides in IDDM
  - isotretinoin effects on, 4-10
  - in obesity, NN414 effects on, 444
  - in PM and premenopausal women, sex steroids and, 189, 190
  - in prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia and in their first-degree relatives, 50
  - self-monitoring of, in evaluation of PP TG response to nutrients, 620-623
  - smoking effects on, 858-860
- Plasma triglycerides (TGs) in IDDM
- plasma apo C-3 polymorphisms and, 1299
  - total, oxidation of glycated and nonglycated LDLs and, 970
- Plasma tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) in older hypertensive subjects, resistance exercise effects on insulin-mediated glucose disposal with minimal effects on, 399-400
- Plasma urea in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
- Plasma uric acid (UA), sauna bathing and beer ingestion effects on concentration of, 772-776
- Plasma valine (Val)
- effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
  - effects of dietary proline with and without glucose on, 244
- Plasma vascular cell adhesion molecule-1 (VCAM-1), effects of red and white wine on, in CAD men, 318-323
- Plasma vascular endothelial growth factor (VEGF), relation between plasma ET, glycemic control and, in DM, 550-555
- Plasma very-low-density lipoprotein(s) (VLDL) in PM and premenopausal women, sex steroids and, 189, 190
- Plasma very-low-density lipoprotein-cholesterol (VLDL-C), HF/HF diet effects on, 819
- Plasma vitamin K (phylloquinone), transport of, in men consuming deuterium-labeled collard greens, 215-221
- Plasma xanthine, sauna bathing and beer ingestion effects on concentration of, 772-776
- Plasminogen activator (PA) antigen, tissue, in NIDDM and at-risk for NIDDM subjects, 224, 226
- Plasminogen activator inhibitor (PAI) antigen, in NIDDM and at-risk for NIDDM subjects, 224, 226
- Plasminogen activator inhibitor-1 (PAI-1)
- fasting, effects of weight loss with normal FPG or IGT on, 1097
  - in inflammation of chronic disease, 901
  - in young subjects with NIDDM patents, 756
- Plasmodium yoelii* (*P. yoelii*) glycosylphosphatidylinositol (GPI), effects of, on glucose homeostasis in obese STZ-DM subjects, 1048-1053
- Platelet(s)
- relationship between intracellular magnesium of cord blood, to birth weight, 1544-1547
  - WPG effects on, 1312
- Platelet acetyl-coenzyme (CoA), ATPCL role in metabolism and function of, in DM, 66-72
- PLD (phospholipase D), serum glycosylphosphatidylinositol-specific, IR and increased, 138-139
- PLTP (phospholipid transfer protein), smoking effects on, 858-862
- PM subjects, *see* Postmenopausal subjects
- PO (primrose oil), evening, effects of, on generation of inflammatory mediators and fatty acid composition in neutrophils, 59-65
- Point mutation in hypoxanthine phosphoribosyl transferase responsible for hyperuricemia in women, 1500-1502
- Policosanol, effects of wheat germ, on normal and mildly elevated plasma cholesterol, 1309-1314
- Polycystic ovary syndrome (PCOS), obesity and, 358-376
- adrenal androgens and cortisol in, 361
  - clinical manifestations of, in obese and non-obese women, 365-367
  - definition, genetics, and epidemiology of PCOS, 358-359
  - estrogen and progesterone in, 361-362
  - gonadatropins and central hypothesis of, 359-361
  - insulin/insulin growth factor hypothesis of, 360, 363-365
  - IR, hyperinsulinemia and, 359
  - leptin in, 362-363
  - ovarian androgens and ovarian hypothesis of, 360, 361
  - therapy of, 367-370
- Polygenic obesity, CL316,243 effects on NIDDM with, 799-808
- Polymorphism, 458-468
- $\beta_2$ -ADR, interaction of, with  $\beta_3$ -ADR Trp64Arg and Arg16Gly polymorphisms of, 1184-1191; *see*  $\beta_3$ -Adrenergic receptor, Trp64Arg polymorphism of
  - apo E, *see* Apolipoprotein E polymorphism
  - in Japanese subjects, *see* Japanese subjects, polymorphism in
  - K121Q glycoprotein PC-1, associated with race but not with IR in children, 465-468
  - Lys109Arg and Gln223Arg, relation between leptin receptor gene, HOMA IR index, serum soluble leptin receptor, serum leptin, lipids and, in Japanese subjects, 879-885
  - in NIDDM, *see* Polymorphism in NIDDM
  - plasma apo C-3, in IDDM, 1296-1304
- Pro12Ala, *see* Pro12Ala polymorphism of PPAR $\gamma$ ; Pro12Ala polymorphism of PPAR $\gamma$ 2
- UCP-1 gene, *see* Uncoupling protein-1 -3826A $\rightarrow$ G polymorphism
- UCP-3, food intake and body composition associated with, 458-464
- Polymorphism in NIDDM
- ACPI, and adenosine deaminase-NIDDM interaction, 995-1001
  - serum PON1, correlation between vascular complications, plasma oxidized LDL level and, 297-302
- Polypeptides, *see specific polypeptides*
- Polyphenols, red and white wine drinking effects on, in CAD men, 320
- Polyunsaturated fatty acids (PUFA)
- CV disease risk factors and intake of, 1439
  - effects of, in premature atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia and in their first-degree relatives, 51
  - in MNH-01 formula, 978
  - plasma ADMA in mild hypercholesterolemia and, 1073
  - WPG and, 1312
  - see also*  $\omega$ -3 Polyunsaturated fatty acids;  $\omega$ -6 Polyunsaturated fatty acids
- $\omega$  (omega)-3 Polyunsaturated fatty acids (PUFA)
- skeletal muscle cell and erythrocyte membrane, in men, 573-575
  - see also*  $\omega$ -3 Polyunsaturated fatty acids, effects of

- $\omega$  (omega)-3 Polyunsaturated fatty acids (PUFA), effects of anti-inflammatory effects of, alone or combined with *all-rac*  $\alpha$ -tocopherol, on IL-1 $\beta$ , IL-6, and TNF- $\alpha$ , 236-240  
on CV disease risk factors, 1439  
on plasma HDL<sub>2</sub>-C and paraoxonase levels in FCHL, 153-158  
*see also* Exercise, effects of  $\omega$ -3 PUFAs with
- $\omega$  (omega)-6 Polyunsaturated fatty acids (PUFA)  
CV disease risk factors and intake of, 1439  
skeletal muscle cell and erythrocyte membrane, in men, 573-575  
PON1, *see* Paraoxonase
- Population minimal modeling, individual and, of IM-FSIVGTT, 1349-1354
- Portal venous hyperinsulinemia, effects of, on gut glucose absorption in conscious subjects, 1290-1295
- Postheparin lipoprotein lipase (LPL), relation between concentration of, and TG metabolism in hypercholesterolemia, 526-531
- Postmenopausal (PM) subjects  
moderate exercise and soy isoflavone effects on AT accumulation and bone loss in, 942-948  
*see also* Postmenopausal women
- Postmenopausal (PM) women  
exercising, *see* Postmenopausal women, effects of diet with exercise in; Postmenopausal women on ERT, exercise effects in  
hypercholesterolemic, simvastatin effects on BMD in, 744-748  
MP-9 gene polymorphism association with BMD and, 136  
obese, *see* Postmenopausal women, obese  
sex steroids and plasma Lp in, 187-192
- Postmenopausal (PM) women, effects of diet with exercise in  
low-fat, high-fiber diet and aerobic exercise effects on inflammatory and adhesion molecules in PM women on ERT and at risk for CAD, 377-381  
soy isoflavone and exercise effects on AT accumulation and bone loss, 942-948
- Postmenopausal (PM) women, obese  
androgenicity and obesity association with insulin sensitivity in, 507-512  
fluvastatin effects on endothelial function in, via sdLDL reduction, 733-739
- Postmenopausal (PM) women on ERT, exercise effects in  
on abdominal AT and MS, 1192-1196  
with risk for CAD, effects of high-fiber, low-fat diet and exercise on inflammatory and adhesion molecules in, 377-381  
*see also* Body composition of PM women, exercise effects on
- Postprandial (PP) blood pressure (BP) in NIDDM, stevioside effects on, 75
- Postprandial (PP) cholesterol (C), plasma, alcohol effects on, in NIDDM, 79
- Postprandial (PP) C-peptide (CP), and effects of OCs on glucoregulatory responses to exercise, 350, 351
- Postprandial (PP) fructose (F), plasma, in NIDDM retinopathy, 583-588
- Postprandial (PP) glucagon (Glc; hyperglycemic-glycogenolytic factor), stevioside effects on, in NIDDM, 75
- Postprandial (PP) glucagon-like peptide-1 (GLP-1), stevioside effects on, in NIDDM, 75
- Postprandial (PP) glucose  
and effects of OCs on glucoregulatory responses to exercise, 350, 351  
in IDDM, HIM2 effects on, 54-58  
in IGT first-degree relatives of African American NIDDM subjects, 1553
- Postprandial (PP) hyperglycemia, MNH-01 effects on PP hyperinsulinemia and, 977-983
- Postprandial (PP) hyperinsulinemia, MNH-01 effects on PP hyperglycemia and, 977-983
- Postprandial (PP) incretins, alcohol effects on, in NIDDM, 77-83
- Postprandial (PP) insulin  
in IGT first-degree relatives of African American NIDDM subjects, 1553  
and OC effects on glucoregulatory responses to exercise, 350, 351
- Postprandial (PP) lipemia, exercise effects on  
effects of alcohol intake on PP incretin levels and, in NIDDM, 77-83  
after HF/HF diet, exercise effects on, 1021-1026  
with  $\omega$ -3 PUFAs, 1365-1371
- Postprandial (PP) low-density lipoprotein ( $\beta$  lipoprotein; LDL) in sedentary subjects and in exercise, apo E polymorphism- $\dot{V}O_{2\max}$  association and, 111, 113
- Postprandial (PP) plasma cholesterol (C), alcohol effects on, in NIDDM, 79
- Postprandial (PP) plasma fructose (F) in NIDDM retinopathy, 583-588
- Postprandial (PP) triacylglycerols (TAG) in NIDDM, alcohol effects on, 77-83
- Postprandial (PP) triglycerides (TGs), plasma TG self-monitoring to evaluate response of, 620-623
- Postpubertal Asian Indian adolescents, adiponectin, CRP, and IR in, 1336-1341
- Potassium (K) channel blocker inhibitors, and 4AP effects on delayed vasorelaxation by troglitazone, 147-152
- PP, *see entries beginning with term:* Postprandial
- PPAR, *see* Peroxisome proliferator-associated receptor  $\alpha$  mRNA; Peroxisome proliferator-associated receptor  $\gamma$ ; Peroxisome proliferator-associated receptor  $\gamma$ 2
- Pramlintide, effects of, on responses of catecholamine, glucagon, and symptoms of hypoglycemia, 1227-1232
- Pravastatin (PRV) effects  
in mixed hyperlipidemia, effects of S-2E compared with, 680-685  
on plasma LDL clearance, 484
- Preadipocytes (adipocyte precursor cells)  
FPFS-410 effects on transcription factors in 3T3-L1, 1534  
from omental and subcutaneous AT of obese subjects, proliferation and differentiation of, compared, 632-637
- Preclinical changes in abdominal aorta of obese children, 1243-1246
- Prediabetic subjects  
cardiac function in, 1391-1394  
LSF effects on glucose-stimulated insulin secretion in, 290-296
- Preeclampsia, established, IR and inflammation in, 1433-1435
- Pregnancy  
 $\beta_3$ -ADR Trp64Arg polymorphism in GDM Taiwanese women, 1136-1139  
with established preeclampsia, IR and inflammation in, 1433-1435  
3,3-T<sub>2</sub>S in, 538-543  
uncomplicated, leucine turnover during third trimester of, 545-549
- Premature atherosclerosis, normocholesterolemic and daytime hypertriglyceridemia in subjects with, 49-53
- Premenopausal women  
non-obese, abdominal and liver AT and metabolic risk in, 1066-1071  
sex steroids and plasma Lp in, 187-192
- Pre-pancreatic islet transplantation, effects of, on serum resistin levels in IDDM, 403-404
- Preproglucagon mRNA (messenger ribonucleic acid), palmitate effects on, 1445-1446
- Prevalence of IR and associated CV disease risk factors in normal weight, overweight, and obese subjects, 495-499

## Prevention

- beta-cell mass loss, effects of pioglitazone on insulin secretion and, in obese NIDDM subjects, 488-494
- of NIDDM in IGT first-degree relatives of obese African American NIDDM subjects with GITS, 414-422
- Primary hyperthyroidism, serum PTH relation to vitamin D profile in eucalcemia after parathyroidectomy for, vitamin D profile relation to, 1101-1106
- Primrose oil (PO), evening, effects of, on generation of inflammatory mediators and fatty acid composition in neutrophils, 59-65
- PRL (prolactin) in older NIDDM men with partial androgen deficiency, 668
- Pro, *see* Proline
- Pro12Ala polymorphism of PPAR $\gamma$  (peroxisome proliferator-activated receptor  $\gamma$ )
  - effects of, on dietary fat and physical activity association with fasting insulin level, 11-16
  - effects of interaction between FABP-4 polymorphism and, on insulin secretion and body composition, 303-309
- Pro12Ala polymorphism of PPAR $\gamma$ 2 (peroxisome proliferator-associated receptor  $\gamma$ 2)
  - associated with adiponectin concentrations in young Japanese men, 1548-1551
  - effects of, on AT distribution in Korean women, 1538-1543
- Progesterone in PCOS, 361-362
- Proinsulin in CHD, IR, 853, 854
- Prolactin (PRL) in older NIDDM men with partial androgen deficiency, 668
- Proliferation, *see* Cell proliferation
- Proline (Pro)
  - dietary, with and without glucose, metabolic response to, 241-246
  - plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
  - see also* Hydroxyproline; Pro12Ala polymorphism of PPAR $\gamma$ ; Pro12Ala polymorphism of PPAR $\gamma$ 2
- Propeptide type 1 collagen, aminoterminal, in adrenal insufficiency, 1252
- Propionic acidemia, late-onset, fatal outcome and, 809-810
- Prostaglandin (PG), caffeine effects on alveolar macrophages via its effects on synthesis of cAMP and, 687-692
- Prostaglandin E<sub>1</sub> (PGE<sub>1</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177
- Prostaglandin E<sub>2</sub> (PGE<sub>2</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177
- Prostaglandin I<sub>2</sub> (PGI<sub>2</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177
- Protease, IGFs, GHBP, IGFBPs, and IGFBP-3, in lipodystrophic HIV-infected subjects, 1565-1573
- Proteasome, dietary protein restriction effects on production of, in skeletal muscle, 340-347
- Protein
  - binding, *see* Fatty acid-binding protein-4; Growth hormone-binding protein; Insulin-like growth factor-binding protein(s); Insulin-like growth factor-binding protein 3 protease; Retinoic acid binding protein-1 mRNA; Sterol regulatory element binding protein-1
  - cardiac, effects of galactosamine-induced liver disease and bile duct ligation on synthesis of, 964-968
  - cardiac myocyte, high glucose and insulin effects on synthesis of, 710-715
  - L-carnitine effects on body composition, AT oxidation, and turnover of, in slightly overweight subjects, 1001-1006
  - C-reactive, *see* C-reactive protein
  - dietary, *see* Dietary protein intake

Protein (*Continued*)

- glargine effects on metabolism of, 1037-1044
- in Korean women, AT distribution and, 1541
- mRNA of steroidogenic acute regulatory, low temperature blocking hCG effects on testosterone production and, but not cAMP production in tumor cells, 955-958
- SM, *see* Protein in SM
- total plasma, beer ingestion and sauna bathing effects on, 774
- transfer, *see* Cholesteryl ester transfer protein; Phospholipid transfer protein
- whole-body, plasma AA concentration and synthesis of, in young men, 388-396
- see also* Glycoprotein; Protein kinase; Protein kinase B $\alpha$ /Akt1
- entries beginning with terms:* Uncoupling protein and specific proteins
- Protein-1, *see* Fatty acid transporter protein-1; Monocyte chemoattractant protein-1; Retinoic acid binding protein-1 mRNA; Sterol regulatory element binding protein-1; Uncoupling protein-1 mRNA; Uncoupling protein-1 -3826A $\rightarrow$ G polymorphism
- Protein in SM
  - effects of epinephrine and ionomycin on IL-6 mRNA and release of, in compared, 1492-1495
  - estimation of breakdown of contractile, with [<sup>2</sup>H<sub>3</sub>]-3-methylhistidine, 1076-1080
- Protein kinase (PK), HF diet effects on glucose transport in SM stimulated by adenosine monophosphate-activated, 914
- Protein kinase B $\alpha$ /Akt1 (PKB $\alpha$ /Akt1), insulin regulation of hepatic apo B production independently of mass or activity of, 228-236
- Proteinuria
  - in preeclampsia, 1434
  - see also* Albuminuria
- Prothrombin time in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
- PRV, *see* Pravastatin effects
- PTH, *see* Parathyroid hormone
- PUFA, *see* Polyunsaturated fatty acids
- Pulse rate, *see* Heart rate
- Pumps, syringe and peristaltic, in metabolic research, accuracy and precision of, compared, 875-878
- Purine bases, plasma, sauna bathing and beer ingestion effects on concentration of, 772-776
- Pyruvate, thioctic acid effects on NEFA oxidation and metabolism of, in hepatocytes, 165-173
- Pyruvate dehydrogenase (PDH), DM effects on, 66-72
- QT intervals, corrected, associated with carotid artery IMT in NIDDM, 1152-1157
- Race and ethnicity
  - adiponectin, *see* Race and ethnicity, adiponectin and
  - of children, *see* Race and ethnicity of children
  - insulin secretion and insulin sensitivity in normal glucose-tolerant LBW Pima Indians, 904-911
  - of kidney transplantation recipients, 615
  - Kuwaiti IDDM adolescents, cardiovascular disease risk factors associated with serum sialic acid in, 638-643
  - lifestyle effects on leptin in Ecuadoran Amazon Shur women, 1355-1358
  - of NIDDM subjects, *see* Race and ethnicity of NIDDM subjects
  - of obese women,  $\beta$ -adrenergic receptor density in subcutaneous and omental AT and, 247-251
  - polymorphism and, *see* Race and ethnicity, polymorphism and

Race and ethnicity (*Continued*)

- see also* Japanese subjects; Korean subjects; Spanish subjects
- Race and ethnicity, adiponectin and
  - adiponectin, CRP, and IR in postpubertal Asian Indian adolescents, 1336-1341
  - adiponectin levels and, 1-3
  - and NEFA regulation of adiponectin, 791
- Race and ethnicity, polymorphism and
  - $\beta_2$ -ADR Arg16Gly polymorphism and, 1184, 1185
  - $\beta_3$ -ADR Trp64Arg polymorphism in GDM Taiwanese women, 1136-1139
  - apo E polymorphism association with blood lipids and  $\dot{V}O_{2\max}$  and, in exercise, 110-113
  - caloric intake, UCP-3 polymorphism, body composition and, 461
  - effects of interaction between FABP-4 and PPAR $\gamma$  Pro12Ala polymorphism and, 305, 306
  - effects of Pro12Ala polymorphism of PPAR $\gamma$ 2 on AT distribution in Korean women, 1538-1543
  - and exercise effects in overweight nondiabetic subjects, 1236
- Race and ethnicity of children
  - apo E polymorphism in Vietnamese children, relation of, to plasma lipids and Lp, 1517-1521
  - associated with glycoprotein PC-1 K121Q polymorphism but not with IR, 465-468
  - high plasma HDL-C level in Spanish children, and low CHD mortality in Spain, 1045-1047
  - Kuwaiti IDDM children, and cardiovascular disease risk factors association with serum sialic acid, 638-643
  - serum HDL-C or apo A-1 levels associated with *ABCA1* gene polymorphism in Japanese school-age children, 182-186
- Race and ethnicity of NIDDM subjects
  - and exercise effects in overweight NIDDM subjects, 1236
  - non-obese insulin-resistant NIDDM Korean subjects, 142-146
  - and Pancreas Tonic effects in NIDDM, 1169
  - triple *HNF-4 $\alpha$*  gene mutations associated with early-onset NIDDM in Filipino family, 959-963
  - see also* First-degree relatives, IGT, of African American NIDDM subjects
- RBCs, *see entries beginning with term*: Erythrocyte
- RCT (reverse cholesterol transport), implications of smoking effects on intravascular remodeling of HDL particles for, 858-862
- Reactive oxygen species (ROS), differential effects of glucose and alcohol on intranuclear nuclear factor- $\kappa$ B in mononuclear cells and generation of, 330-334
- Rebaudioside A, dose-, glucose-, and calcium-dependent effects of, on insulin secretion, 1378-1381
- Recovery of endothelial function after denudation of carotid arteries, effects of elevated plasma Hcy on, 760-765
- Red blood cells, *see entries beginning with term*: Erythrocyte(s)
- Red wine drinking
  - effects of white and, on circulating inflammation-sensitive molecules in men with CAD, 318-323
  - lack of acute effects of food intake and, on vascular reactivity, 1081-1086
- REE, *see* Resting energy expenditure
- Relatives, *see* First-degree relatives
- Remethylation of homocysteine, 1480-1483
- Remnant lipoprotein-cholesterol (RLP-C) in NIDDM, metformin effects on, 161
- Renal cholinephosphotransferase (CHPT) mRNA (messenger ribonucleic acid) in NIDDM, 842-846
- Renal cortex
  - different glucose level effects on arginase activity and NO production in, 868-874

Renal cortex (*Continued*)

- water diuresis-induced changes in endothelial function and oxygenation of, in NIDDM and at-risk for NIDDM subjects, 222-227
- Renal disease, *see* Nephropathy
- Renal failure
  - HHcy associated with impaired Hcy trans-sulfuration as cause of, 1482
  - see also* Chronic renal failure
- Renal fibronectin insulin resistance (IR), cilostazol effects on, 1405-1410
- Renal glucose, effects of hyperglycemia, glucagon, and epinephrine on release of, in conscious subjects, 933-941
- Renal 11 (beta)-hydroxysteroid dehydrogenase 2 (11-HSD2) mRNA (messenger ribonucleic acid), responsiveness of body weight and, to 11 $\beta$ -HSD inhibition by glycyrrhetic acid, 600-606
- Renal medullary blood flow (MBF), tempol effects on hypertension and hyperinsulinemia based on increase of, 1305-1308
- Renal transplantation, correlation between AT, serum leptin, and food intake during 6-month period following, 614-619
- Renal weight in IR with microalbuminuria, 1407
- RER (respiratory exchange ratio) during exercise at cold temperature, 204, 205
- Resistance
  - to obesity, adaptive thermogenesis and, 1417-1423
  - see also* Insulin resistance
- Resistance exercise effects
  - on glycemic control in NIDDM women, 284-289
  - on insulin-mediated glucose disposal with minimal effect on TNF- $\alpha$  in older hypertensive subjects, 397-402
- Resistin (FIZZ3; ADSF)
  - in obese women, effects of moderate weight loss and sibutramine or orlistat on, 432
  - serum levels of, in IDDM before and after pancreatic islet transplantation, 403-404
- Respiratory distress, circulating ACTH and cortisol concentrations in normal appropriate-for-gestational-age newborns versus newborns with sepsis and, 209-214
- Respiratory exchange ratio (RER) during exercise at cold temperature, 204, 205
- Respiratory quotient (RQ) in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
- Resting energy expenditure (REE)
  - in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
  - and hyperinsulinemia effects on whole-body protein synthesis, 389
  - by lipodystrophic subjects, leptin replacement therapy effects on, 515
- Resting heart rate (HR) of young subjects with NIDDM parents, 756
- Resting metabolic rate (RMR) in advanced NIDDM nephropathy, 1395-1398
- Restricted diet, *see* Dietary restriction
- Retinal glucose, effects of acute insulin-induced hypoglycemia and normoglycemic hyperinsulinemia on ocular glucose metabolism and uptake of, 1274-1283
- Retinocytes, correlation between HbA<sub>1c</sub>, serum haptoglobin, serum bilirubin and, 1498
- Retinoic acid binding protein-1 mRNA (messenger ribonucleic acid), cellular, effects of, on CYP26-mediated catabolism of A11-*trans* retinoic acid and cell proliferation in head and neck squamous cell carcinoma, 1007-1012
- Retinopathy, *see* Non-insulin-dependent diabetes mellitus retinopathy



- Reverse cholesterol transport (RCT), implications of smoking effects on intravascular remodeling of HDL particles for, 858-862
- Ribonucleic acid, *see* mRNA
- Risk factors
- for endometrial cancer in obese PCOS women, 366
  - metabolic, in non-obese premenopausal women, abdominal and liver AT and, 1066-1071
  - for metabolic syndrome, lifestyle effects on, 1503-1511
  - for NIDDM, and water diuresis-induced changes in renal cortex oxygenation and endothelial function, 222-227
  - see also* Risk factors for CV disease
- Risk factors for CV disease
- associated with serum sialic acid in IDDM Kuwaiti children and adolescents, 638-643
  - for CAD, effects of exercise and high-fiber, low-fat diet on inflammatory and adhesion molecules in PM women on ERT and, 377-381
  - diet, lifestyle, and plasma CRPs associated with, 1436-1442
  - for myocardial infarction in CAD men, 324-329
  - in NIDDM, *see* Risk factors for CV disease in NIDDM
  - in obesity, *see* Risk factors for CV disease in obesity
  - in subclinical hypothyroidism, 1512-1515
- Risk factors for CV disease in NIDDM
- with IGT, contribution of visceral AT and cardiorespiratory fitness to risk factors for CHD, 644-649
  - multiple, effects of metformin on, 159-164
- Risk factors for CV disease in obesity
- in obese PCOS women, 366
  - prevalence of IR and associated, 495-499
- R-LA [R-(+)- $\alpha$ -lipoic acid; thioctic acid], effects of, on pyruvate metabolism and NEFA oxidation in hepatocytes, 165-173
- RLP-C (remnant lipoprotein-cholesterol) in NIDDM, metformin effects on, 161
- RMR (resting metabolic rate) in advanced NIDDM nephropathy, 1395-1398
- ROS (reactive oxygen species), differential effects of glucose and alcohol on intranuclear nuclear factor- $\kappa$ B in mononuclear cells and generation of, 330-334
- Rosiglitazone effects
- on insulin regulation and dyslipidemia in NIDDM, 1121-1125
  - on insulin sensitivity, insulin secretion, and plasma adiponectin in IGT first-degree relatives of African American NIDDM subjects, 1552-1557
  - in obese PCOS women, 371
- Roux-en-Y bypass (RYBG), changes in BMC after ASGB and, for morbid obesity, 918-921
- RQ (respiratory quotient) in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
- RYBG (Roux-en-Y bypass), changes in BMC after ASGB and, for morbid obesity, 918-921
- S, *see* Sucrose
- S12911-2 (strontium ranelate), bone matrix mineralization induced by, in MC3T3-E1 osteogenic cells, 532-537
- SAA (serum amyloid A), aerobic exercise and high-fiber, low-fat diet effects on, in postmenopausal women on ERT and at risk for CAD, 377, 379-380
- Safety of Pancreatic Tonic, 1170
- Sarafotoxin, effects of, on AVP<sub>2</sub> mRNA in IMCD, 1180
- SAT, *see* Subcutaneous adipose tissue
- Saturated fatty acid(s) (SFA)
- CV disease risk factors and intake of, 1439
  - effects of, on SP1-induced apo A-I promoter, 1342-1348
  - skeletal muscle cell and erythrocyte membrane, 573
- Saturated fatty acid(s) (SFA) (*Continued*)
- WPG and, 1312
  - see also* Saturated fatty acid intake
- Saturated fatty acid (SFA) intake
- with MNH-01 formula, 978
  - plasma ADMA in mild hypercholesterolemia and, 1073
  - by prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia and by their first-degree relatives, 51
- Sauna bathing, effects of beer ingestion and, on plasma concentration of purine bases, 772-776
- SCC (squamous cell carcinoma), head and neck, effects of cellular CRABP-1 mRNA on CYP2-mediated catabolism of A11-*trans* retinoic acid and on cell proliferation in, 1007-1012
- SCI, *see* Spinal cord injury
- sdLDL, *see* Small-dense low-density lipoprotein
- S-2E [(+)-(s)-*p*-[1-(*p*-*tert*-butylphenyl)-2-oxo-4-pyrrolidinyl] methoxybenzoic acid], effects of PRV and in mixed hyperlipidemia, compared, 680-685
- Sedentary subjects
- apo E polymorphism associated with in blood lipids and  $\dot{V}O_{2max}$  in, 108-116
  - OGTT assessment of plasma nitrate/nitrite in, 673-679
- Selective estrogen receptor modulators (SERMs), effects of, on GH secretion, 563-570
- Self-monitoring of plasma TGs, PP TG response to nutrients evaluated with, 620-623
- Sepsis, circulating ACTH and cortisol concentrations in normal appropriate-for-gestational-age newborns versus newborns with respiratory distress and, 209-214
- Serine (Ser), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- SERMs (selective estrogen receptor modulators), effects of, on GH secretion, 563-570
- Serum adipocytokines, effects of moderate weight loss and orlistat or sibutramine treatment on waist circumference of obese women, 430-434
- Serum adiponectin
- associated with HDL-C, TGs, and LDL particle size in young men, 589-593
  - in postpubertal Asian Indian adolescents, 1338-1339
  - relationship between serum soluble leptin receptor, serum leptin, HOMA IR index, lipids, leptin receptor gene Lys109Arg and Gln223Arg polymorphisms and levels of, in Japanese subjects, 879-885
- Serum albumin
- in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
  - food intake, AT and, in 6-month period following kidney transplantation, 614-619
  - in HD subjects, 1014
  - in severe lipodystrophy, leptin replacement therapy effects on, 516
- Serum amyloid A (SAA), aerobic exercise and high-fiber, low-fat diet effects on, in postmenopausal women on ERT and at risk for CAD, 377, 379-380
- Serum apolipoprotein A-1 (apo A-1) in CAD men, 425
- Serum apolipoprotein A-2 (apo A-2) in CAD men, 425
- Serum apolipoprotein C-2 (apo C-2) in CAD men, 425
- Serum apolipoprotein C-3 (apo C-3)
- in CAD men, 425
  - in IDDM, 1299, 1301
- Serum apolipoprotein E (apo E) in CAD men, 425
- Serum bilirubin

- Serum bilirubin (*Continued*)  
 correlation between HbA<sub>1c</sub>, retinocytes, serum haptoglobin and, 1498  
 in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089
- Serum Ca (calcium) in severe lipodystrophy, leptin replacement therapy effects on, 516
- Serum cholesterol (C)  
 effects of ATPCL inhibitors on, 68  
 total, in CAD men, 425
- Serum C-peptide (CP; connecting peptide) in IGT first-degree relatives of obese African American NIDDM subjects, 418
- Serum C-reactive protein (CPR), diet and  
 aerobic exercise and high-fiber, low-fat diet effects on, in postmenopausal women on ERT and at risk for CAD, 377, 379-380  
 AT and, in 6-month period following kidney transplantation, 614-619
- Serum C-reactive protein (CRP)  
 diet and, *see* Serum C-reactive protein, diet and  
 high-sensitivity, effect of insulin therapy of NIDDM on, 693-699  
 in preeclampsia, 1434, 1435
- Serum creatinine  
 in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089  
 in HD subjects, 1014  
 in NIDDM nephropathy, *see* Serum creatinine in NIDDM nephropathy  
 in primary hyperthyroidism, 1102
- Serum creatinine in NIDDM nephropathy  
 in Japanese NIDDM subjects with incipient nephropathy, 1224  
 pioglitazone effects on, 1383
- Serum fatty acids (FAs), PP, in NIDDM, alcohol effects on, 79-80
- Serum glucose  
 acute effects of nicotine on, in smokers, 578-582  
 in obese NIDDM subjects, 408  
*see also* Serum glucose in first-degree relatives
- Serum glucose in first-degree relatives  
 in IGT first-degree relatives of obese African American NIDDM subjects, 418  
 of prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia, 50
- Serum glycosylphosphatidylinositol-specific phospholipase D (GPI-PLD), IR and levels of, 138-139
- Serum haptoglobin, correlation between HbA<sub>1c</sub>, retinocytes, serum bilirubin and, 1498
- Serum high-density lipoprotein-cholesterol ( $\alpha$  lipoprotein-cholesterol; HDL-C)  
 apo E genotype and changes in maximal oxygen uptake and, in exercise, 196, 198-200  
 effects of levels of, on plasma oxidized LDL-CAD association in men, 423-429  
 levels of apo A-1 and, associated with *ABCA1* gene polymorphism in Japanese school-age children, 182-186
- Serum high-density lipoprotein<sub>2</sub>-cholesterol ( $\alpha$  lipoprotein<sub>2</sub>-cholesterol; HDL<sub>2</sub>-C)  
 apo E genotype and changes in, during endurance exercise, 196, 198-200  
 effects of levels of, on plasma oxidized LDL-CAD association in men, 425  
 in preeclampsia, 1434, 1435
- Serum high-density lipoprotein<sub>3</sub>-cholesterol ( $\alpha$  lipoprotein<sub>3</sub>-cholesterol; HDL<sub>3</sub>-C)  
 apo E genotype and changes in  $\dot{V}O_{2\max}$  and, in endurance exercise, 196, 198-200  
 effects of levels of, on plasma oxidized LDL-CAD association in men, 425
- Serum high-sensitivity C-reactive proteins (CRPs) in NIDDM, effects of insulin therapy on, 693-699
- Serum 1,25 hydroxyvitamin D in severe lipodystrophy, leptin replacement therapy effects on, 516
- Serum 25-hydroxyvitamin D in severe lipodystrophy, leptin replacement therapy effects on, 516
- Serum insulin  
 preservation of circadian rhythm of concentration of, during fasting by lean and overweight subjects, 1449-1453  
 response of, to IVGTT, of obese NIDDM subjects, 408  
*see also* Serum insulin in first-degree relatives
- Serum insulin in first-degree relatives  
 in IGT first-degree relatives of obese African American NIDDM subjects, 418  
 of prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia, 50
- Serum interleukin-6 (IL-6) in preeclampsia, 1434, 1435
- Serum interleukin-6 receptor (IL-6R), and IR in liver cirrhosis, 923, 924
- Serum leptin  
 AT, food intake and, during 6-month period following kidney transplantation, 614-619  
 in preeclampsia, 1434, 1435  
 serum soluble leptin receptor, serum adiponectin levels, HOMA IR index, lipids, leptin receptor gene Lys109Arg and Gln223Arg polymorphisms and, in Japanese subjects, 879-885  
 in severe lipodystrophy, effects of leptin replacement therapy on, 514, 515
- Serum lipids  
 profile of, and interaction of Arg16Gly  $\beta_2$ -ADR polymorphism with  $\beta_3$ -ADR Trp64Arg polymorphism, 1184-1191  
 regulation of EFAs in, in short-gut subjects on lipid-containing TPN, 273-277  
*see also specific serum lipids*
- Serum lipoprotein(a) [Lp(a)] in CAD men, 425
- Serum lipoprotein lipase (LPL), relation between TG metabolism and concentration of, in hypercholesterolemia, 526-531
- Serum low-density lipoprotein-cholesterol ( $\beta$  lipoprotein-cholesterol; LDL-C) in CAD men, 425
- Serum magnesium (Mg) in adrenal insufficiency, 1252
- Serum Na (sodium), beer ingestion and sauna bathing effects on, 774
- Serum nitric oxide (NO), concentration of TNF soluble receptors, TNF- $\beta$  and, in overweight and obese women, 1268-1273
- Serum nonesterified fatty acids (NEFAs; free fatty acids), fasting, in obese NIDDM subjects, bezafibrate effects on, 407-408
- Serum osteocalcin in severe lipodystrophy, leptin replacement therapy effects on, 516
- Serum paraoxonase (PON1), polymorphism of, correlated with vascular complications, plasma oxidized LDL level and, in NIDDM, 297-302
- Serum parathyroid hormone (PTH) in eucalcemia after parathyroidectomy for primary hyperthyroidism, relation of, to vitamin D profile, 1101-1106
- Serum phosphate in adrenal insufficiency, 1252
- Serum phospholipids (PL), regulation of, in short-gut subjects on PL-containing TPN, 273-277
- Serum phosphorus (P)  
 in primary hyperthyroidism, 1102

- Serum phosphorus (P) (*Continued*)  
 in severe lipodystrophy, leptin replacement therapy effects on, 516
- Serum resistin, pre- and post-pancreatic islet transplantation levels of, in IDDM, 403-404
- Serum sialic acid, cardiovascular disease risk factors associated with, in IDDM Kuwaiti children and adolescents, 638-643
- Serum sodium (Na), beer ingestion and sauna bathing on urinary excretion of, 774
- Serum transferrin, food intake, AT and, in 6-month period following kidney transplantation, 614-619
- Serum triglycerides (TGs)  
 ATPCL inhibitor effects on, 68  
 in CAD men, 425  
 in IDDM, 1301  
 in NIDDM with obesity, bezafibrate effects on, 407-408  
 in postpubertal Asian Indian adolescents, 1338, 1339  
 in preeclampsia, 1434
- Serum tumor necrosis factor (TNF), serum concentration of NO, TNF- $\beta$ , and soluble receptors of, in overweight and obese women, 1268-1273
- Serum tumor necrosis factor- $\alpha$  (TNF- $\alpha$ )  
 levels of, in obese adolescents, MS components and, 863-867  
 in preeclampsia, 1434  
 soluble, associated with IR in liver cirrhosis, 922-926
- Serum tumor necrosis factor- $\beta$  (TNF- $\beta$ ), serum concentrations of NO, TNF soluble receptors and, in overweight and obese women, 1268, 1273
- Serum urea in HD subjects, 1014
- Serum uric acid in IDDM, and oxidation of glycated and nonglycated LDLs, 970
- Severe lipodystrophy, effects of leptin replacement therapy of, on body composition, 513-519
- Sex  
 of acromegalic subjects, 565  
 $\beta_2$ -ADR Arg16Gly polymorphism and, 1184, 1185  
 birth weight and, 1545  
 of CT subjects, 557  
 CV disease risk factors and, 1437, 1440  
 of disabled hospitalized older subjects, HHcy and, 1018  
 of DM subjects, *see* Sex of DM subjects  
 effects of, on HbA<sub>1c</sub>, 1497  
 of HD subjects, 1014  
 of hypercholesterolemic subjects, *see* Sex of hypercholesterolemic subjects  
 of hypothyroidic subjects, 278  
 of insulin-resistant subjects, *see* Sex of insulin-resistant subjects  
 of insulin-sensitive subjects, 1109  
 of kidney transplantation recipients, 615  
 of LBW Pima Indians with normal glucose tolerance, 906, 908  
 leptin levels and, 1412-1414  
 of lipodystrophic subjects, *see* Sex of lipodystrophic subjects  
 of NIDDM nephropathy subjects, *see* Sex of NIDDM nephropathy subjects  
 of obese subjects, *see* Sex of obese subjects  
 of overweight subjects, *see* Sex of overweight subjects  
 of prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia, 50  
 and preservation of circadian rhythm of serum insulin concentration at low plasma glucose during fasting by non-obese subjects, 1450  
 of primary hyperthyroidism subjects, 1102  
 and risk for metabolic syndrome, 1508  
 serum LPL concentration and, 527, 528
- Sex (*Continued*)  
 and WPG effects on normal or mildly elevated plasma cholesterol, 1311  
*see also* Men; Sex, diet and; Sex, exercise and; Women
- Sex, diet and  
 and acute effects of red wine drinking and food intake on vascular reactivity and, 1082  
 and CV disease risk factors, 1437, 1440  
 and PP TG response to different nutrients, 621
- Sex, exercise and  
 and plasma nitrate/nitrite assessment during OGTT, 675  
 relationship of alcohol, adiposity and, to HDL-C levels and, 704, 706
- Sex, exercise,  $\dot{V}O_{2\max}$  and  
 apo E genotype and changes in serum lipids and  $\dot{V}O_{2\max}$  in endurance exercise, 196-198  
 and apo E polymorphism association with blood lipids and  $\dot{V}O_{2\max}$ , 110-113
- Sex of DM subjects  
 and relation between plasma VEGF, plasma ET-1 concentration, and glycemic control of, 551  
*see also* Sex of IDDM subjects; Sex of NIDDM subjects
- Sex hormone-binding globulin (SHBG)  
 in PM women, *see* Sex hormone-binding globulin in PM women  
 in preeclampsia, 1434, 1435  
 in premenopausal women, plasma Lp and, 189
- Sex hormone-binding globulin (SHBG) in PM women  
 insulin sensitivity and, 508-510  
 plasma Lp and, 189
- Sex of hypercholesterolemic subjects  
 of mildly hypercholesterolemic subjects, 1073  
 serum LPL concentration and, 527, 528
- Sex of IDDM subjects  
 and glycemic control effects on F<sub>2</sub> isoprostane level at IDDM onset, 1119  
 oxidation of glycated and nonglycated LDLs and, 970
- Sex of insulin-resistant subjects  
 indices of IR and, 1525  
 with LVH, 778, 779  
 obese, with normal FPG or IGT, 1097  
 plasma NEFA regulation and, 1198  
 serum GPI-PLD and, 139
- Sex of lipodystrophic subjects  
 with HIV infection, 1567  
 with severe lipodystrophy, 514
- Sex of NIDDM nephropathy subjects  
 of Japanese NIDDM subjects with incipient nephropathy, 1224  
 and pioglitazone effects on carotid artery stiffness and intima-media thickness in NIDDM nephropathy, 1383
- Sex of NIDDM subjects  
 association of corrected QT intervals with carotid artery IMT, 1153, 1154  
 and in at-risk for NIDDM subjects, 224  
 with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360  
 glyburide and nateglinide effects on NIDDM and, 1332  
 with IGT, 646  
 and insulin therapy effects on serum high-sensitive CRP, 694, 695  
 Japanese subjects, insulin secretion and insulin sensitivity and, 832  
 with obesity, adiponectin and C-reactive protein and, 1457  
 and Pancreas Tonic effects in, 1169  
 with retinopathy, 585  
 and risk factors for CV disease, 160

Sex of NIDDM subjects (*Continued*)

serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301

*see also* Sex of NIDDM nephropathy subjects

## Sex of obese subjects

adipocyte precursor cell proliferation and differentiation and, 633, 635

adolescents, 864

Korean subjects, -3826A→G UCP-1 polymorphism effects on level of LDL-C and, 1055

with NIDDM, adiponectin, C-reactive protein and, 1457

## Sex of overweight subjects

of fasting overweight subjects, preservation of circadian rhythm of serum insulin concentration at low plasma glucose in, 1450

of slightly overweight subjects, effects of L-carnitine and, 1002

## Sex steroids

plasma Lp and, in women, 187-192

*see also specific sex steroids*

SFA, *see* Saturated fatty acid(s)SHBG, *see* Sex hormone-binding globulin

## Short-gut subjects on lipid-containing total parenteral nutrition,

serum lipid EFAD regulation in, 273-277

Short-term stored frozen blood samples, HbA<sub>1c</sub> in, 1497

## Shuar women, Ecuadoran Amazon, effects of agricultural versus traditional lifestyle on leptin in, 1355-1358

S<sub>i</sub>, *see* Insulin sensitivity

## Sialic acid

in inflammation of chronic disease, 901, 902

serum, cardiovascular disease risk factors associated with, in IDDM Kuwaiti children and adolescents, 638-643

## Sibutramine, effects of moderate weight loss by obese women and, on waist circumference and serum adipocytokines, 430-434

## Silicone gastric banding, adjustable, changes in BMC after RYBG and, for morbid obesity, 918-921

## Simvastatin effects

on bone mineral density in hypercholesterolemic PM women, 744-748

on plasma LDL clearance, 484

## Skeletal muscle (SM)

fiber type- and FA composition-dependent effects of HF diet on TAG and FATP-1 content of, 1032-1036

of transgenic male subjects, GSK-3 $\beta$  mRNA in, 1322-1330

*see also* Glucose transport in SM; Protein in SM; Skeletal muscle, diet effects on; Skeletal muscle cells; Skeletal muscle insulin resistance

## Skeletal muscle (SM), diet effects on

dietary protein restriction effects on proteasome production in, 340-347

HF diet effects, *see* High-fat diet, effects of, on SM

## Skeletal muscle (SM) cells, lipid composition of, associated with arachidonic acid and insulin sensitivity in men, 571-577

## Skeletal muscle (SM) insulin resistance (IR), development of, after 1-day hindlimb suspension, 1215-1222

## Slight overweight, L-carnitine effects on fat oxidation, protein turnover, and body composition in, 1001-1006

SM, *see* Skeletal muscle; Skeletal muscle cells

## Small-dense low-density lipoprotein (sdLDL)

carotid atherosclerosis, vascular dementia and, 476-482

fluvastatin effects on endothelial function in obese PM women via reduction of, 733-739

## Smoking

acute effects of nicotine on serum glucose, insulin, GH, and cortisol, 578-582

CAD and, *see* Smoking, CAD and

Smoking (*Continued*)

and CV disease risk factors, 1437, 1439

by disabled hospitalized older subjects, HHcy and, 1018

effects of, on intravascular remodeling of HDL particles for RCT, 858-862

FABP-4 and PPAR $\gamma$ -activated receptor polymorphism interaction effects on, 305, 306

growth hormone in, *see* Growth hormone in smokers

by hypercholesterolemic PM women, 745

in hypothyroidism, 278

by insulin-resistant subjects, *see* Smoking by insulin-resistant subjects

by NIDDM subjects, *see* Smoking by NIDDM subjects

pituitary response to exercise by nondiabetic and IDDM smokers, 1140-1144

relationship between obesity, ADMA and, 1574-1579

and risk for metabolic syndrome, 1506-1508

and UCP-3 polymorphism-body composition association, 460, 461

by young subjects with NIDDM parents, LDL susceptibility to oxidation and circulating adhesion molecules and, 756

## Smoking, CAD and

by CAD men, as risk for myocardial infarction, 325, 326

serum HDL-C level effects on association between plasma oxidized LDLs and, 424-426

## Smoking by insulin-resistant subjects

central HPA dysfunction and, 722

with CHD, 855

## Smoking by NIDDM subjects

with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360

with IGT, as risk factor for CHD, 646

pituitary response to, 1140-1144

serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301

## Soccer players, cholesterol efflux in, 1262-1267

## SOD (superoxide dismutase), erythrocyte, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41

Sodium, *see* Urinary excretion, sodium

## Sodium nitroprusside, glucose transport in SM stimulated by, 914

## Soluble leptin receptor, relationship between serum leptin, serum adiponectin levels, HOMA IR index, lipids, and leptin receptor gene Lys109Arg and Gln223Arg polymorphisms in Japanese subjects, 879-885

Soluble tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), serum, associated with IR in liver cirrhosis, 922-926

## Soy isoflavone, effects of moderate exercise and, on AT accumulation and bone loss in postmenopausal subjects, 942-948

## Soybean oil in obesity-inducing HF diet, 783

## Sp1, SFA effects on apo A-1 promoter induced by, 1342-1348

## Spanish subjects

association of Trp64Arg polymorphism of  $\beta_3$ -adrenergic receptor associated with increased leptin levels but not with

-3826A→G polymorphism of UCP-1 gene in, 1411-1416

low CHD mortality in Spain and high-plasma HDL-C in Spanish children, 1045-1047

## Spinal cord injury (SCI)

acute, circulating leptin as marker of fat mass in, 989-994

MS in men with, 1372-1377

## Spirinolactone for obese PCOS women, 370

Spontaneous hypertension (HTN), intracellular Ca<sup>2+</sup> chelator effects on IR and on, in subjects on high-fat diet, 269-272



- Squamous cell carcinoma (SCC), head and neck, effects of cellular CRABP-1 mRNA on CYP2-mediated catabolism of A11-*trans* retinoic acid and on cell proliferation in, 1007-1012
- SR (strontium ranelate), bone matrix mineralization induced by, in MC3T3-E1 osteogenic cells, 532-537
- SREBP-1 (sterol regulatory element binding protein-1) mRNA (messenger ribonucleic acid), upregulation of lipogenic enzyme and, in white adipose tissue of CRF subjects, 1060-1065
- SSPG, *see* Steady-state plasma glucose in IR
- Stability over time of GHb, RBC survival and, in hematologically stable subjects without DM, 1399-1403
- Starch in HF diet, 1033
- Statins  
in CAD, 319  
in NIDDM, serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299, 301  
*see also* Atorvastatin; Fluvastatin; Pravastatin effects; Simvastatin effects
- Steady-state plasma glucose (SSPG) in IR  
with associated CV disease risk factors in overweight and normoponderal subjects, 495-498  
*see also* Steady-state plasma glucose in obesity with IR
- Steady-state plasma glucose (SSPG) in obesity with IR  
with associated CV disease risk factors, 495-498  
effects of moderate weight loss by obese insulin-resistant women on, 280-283
- Stearic acid  
effects of, on Sp1-induced apo A-I promoter, 1343-1345  
TG content of, in MS, 312
- Steroid(s), *see specific steroids*
- Steroidogenic acute regulatory protein mRNA (messenger ribonucleic acid), low temperature blocking testosterone production and stimulatory effects of hCG on, but not cAMP production in tumor cells, 955-958
- Sterol regulatory element binding protein-1 (SREBP-1) mRNA (messenger ribonucleic acid), upregulation of lipogenic enzyme and, in white adipose tissue of CRF subjects, 1060-1065
- Stevioside (SVS)  
effects of, on glucose transport in insulin-sensitive and insulin-resistant subjects, 101-107  
effects of, in NIDDM, 73-76
- Stiffness, carotid artery, pioglitazone effects on carotid intima-media thickness and, in NIDDM nephropathy, 1382-1386
- Storch-Young model of Hcy remethylation and TS, 1480-1483
- Streptozotocin-induced diabetes mellitus (STZ-DM)  
effects of oral vanadate with tea extract on mortality and morbidity associated with, 1145-1151  
high-fat diet-induced fatty liver in, 260-263  
leptin effects on HPA axis activity, dysphagia, and weight loss in, 1558-1564  
LSF effects on glucose-stimulated insulin secretion in, 290-296  
with obesity, effects of *P yoelli* GPIs on glucose homeostasis in, 1048-1053
- Stress  
mental, and lipolysis activation in IR, 1199  
oxidative, in NIDDM with obesity, pioglitazone protecting beta cells from, 488-494
- Stromal vascular cells from omental and subcutaneous AT of obese subjects, differentiation and proliferation of, compared, 634
- Strontium ranelate (SR; S12911-2), bone matrix mineralization induced by, in MC3T3-E1 osteogenic cells, 532-537
- STZ-DM, *see* Streptozotocin-induced diabetes mellitus
- Subclinical hypothyroidism, CV disease risk factors in, 1512-1515
- Subcutaneous adipose tissue (SAT)  
abdominal, in lipodystrophic HIV-infected subjects, 1567  
*see also* Omental adipose tissue, subcutaneous and, in obese subjects
- Sucrose (S)  
in HF diet, 1033  
in MNH-01 formula, 978  
NOS inhibition and pioglitazone effects on insulin action in subjects on high-sucrose diet, 22-27
- Sulfonylurea, effects of Pancreas Tonic and, in NIDDM, compared, 1169
- Sunflower oil in HF diet, 1033
- Superoxide dismutase (SOD), erythrocyte, effects of Cu enzymes in CF before and after Cu supplementation with or without zinc on, 37-41
- Supplementation, *see specific supplements*
- Survival, RBC, stability over time of GHb, glucose and, in hematologically stable subjects without DM, 1399-1403
- SVS, *see* Stevioside
- Swimming, effects of, on hepatic glucose production in response to glucagon, 1027-1031
- Symptoms of hypoglycemia, pramlintide effects on response of catecholamines, glucagon and, 1227-1232
- Synthase  
deficiency in cystathionine- $\beta$ -, betaine effects on, 594-599  
fatty acid, upregulation of mRNA SREBP-1 and, in WAT of CRF subjects, 1060-1065  
inducible and endothelial nitric oxide, in early NIDDM nephropathy, 1474  
nitric oxide, *see* Nitric oxide synthase  
*see also* Glycogen synthase; Glycogen synthase kinase-3 $\beta$  mRNA
- Syringe pumps, peristaltic and, in metabolic research, accuracy and precision of peristaltic and, compared, 875-878
- Systolic pressure, *see* Blood pressure
- T lymphocytes, activated, CD4<sup>+</sup> and CD8<sup>+</sup>, emergence of growth factor receptors in, 117-122
- T<sub>3</sub>, *see* Triiodothyronine in hypothyroidism
- T3T3-LI preadipocytes, FPFS-410 effects on, in preadipocytes 1534
- T<sub>4</sub>, *see* Thyroxine in hypothyroidism
- TAG, *see* Triacylglycerol
- Taiwanese women, GDM and  $\beta_3$ -ADR Trp64Arg polymorphism in, 1136-1139
- Taurine (Tau), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- TC, *see* Total cholesterol
- Tea extract with oral vanadate, effects of, on morbidity and mortality in STZ-DM, 1145-1151
- Telopeptide,  $\beta$ -carboxy terminal, of type 1 collagen in adrenal insufficiency, 1252
- Temperature  
adaptive thermogenesis and resistance to obesity, 1417-1423  
cold, *see* Exercise at cold temperature, NEFA oxidation during low, hCG stimulatory effects on steroidogenic acute regulatory protein mRNA and testosterone production blocked by, in tumor cells, but not cAMP production, 955-958
- Tempol, effects of, on hyperinsulinemia and hypertension based on increase of medullary BF, 1305-1308
- Testosterone  
carotid atherosclerosis, vascular dementia and, 477  
free, *see* Free testosterone  
low temperature blocking stimulatory effects of hCG on steroidogenic acute regulatory protein mRNA and production of, but not on cAMP production in tumor cells, 955-958

Testosterone (*Continued*)

total, *see* Total testosterone

Tetraacetic acetoxymethyl ester [bis(*o*-aminophenoxy)ethane-N,N,N',N'), effects of, on IR and spontaneous HTN in subjects on HF diet, 269-272

25-Tetrol, plasma, in CTX, 558

TG(s), *see* Triglyceride(s)

TGF- $\beta$ 1 (transforming growth factor- $\beta$ 1), effects high glucose and insulin on expression of, in cardiac fibroblasts, 712

TGL (triglyceride lipase), hepatic, endurance exercise effects on, 196, 198-200

TGZ, *see* Troglitazone

tHcy (total homocysteine) in subclinical hypothyroidism, 1513

## Thermogenesis

adaptive, resistance to obesity and, 1417-1423

*see also* Temperature

Thiazolidinediones, *see* FPS-410; Non-insulin-dependent diabetes mellitus, pioglitazone effects on; Rosiglitazone effects; Troglitazone

Thioctic acid [R-(+)- $\alpha$ -lipoic acid], effects of, on pyruvate metabolism and NEFA oxidation in hepatocytes, 165-173

Third trimester of uncomplicated pregnancy, leucine turnover in, 545-549

-3826A $\rightarrow$ G polymorphism of UCP-1 gene, increased leptin level associated with  $\beta_3$ -ADR Trp64Arg polymorphism but not with, in Spanish subjects, 1411-1416

Threonine (Thr), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392

Thrombin, effects of, on platelet function in DM, 66-72

Thromboxane B<sub>2</sub> (TXB<sub>2</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177

## Thyroidal diseases

3,3'-T<sub>2</sub>S in, 538-543

*see also specific conditions*

Thyrotropin (TSH) in hypothyroidism

effects of therapy with, on endothelial function and, 279

free, in subclinical hypothyroidism, CV disease risk factors and, 1513

Thyroxine (T<sub>4</sub>) in hypothyroidism

effects of therapy with, on endothelial function, 278-279

free, in subclinical hypothyroidism, CV disease risk factors and, 1513

Tissue plasminogen activator (tPA)-antigen in NIDDM and at-risk for NIDDM subjects, 224, 226

TNF, *see* Tumor necrosis factor

$\alpha$  (alpha)-Tocopherol (vitamin E)

CV disease risk factors and intake of, 1439

and plasma ADMA in mild hypercholesterolemia, 1073

*see also: all-rac -Tocopherol*

*all-rac*  $\alpha$  (alpha)-Tocopherol (vitamin E)

anti-inflammatory effects of  $\omega$ -3 PUFAs alone or combined with, 236-240

in obesity-inducing HF diet, 783

Total adipose tissue (AT)

in IR, 722, 723

in obese NIDDM subjects, bezafibrate effects on, 407

in PM women, androgenicity and, and insulin sensitivity, 508

## Total bilirubin

in Korean women, AT distribution and, 1541

in obese Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C and, 1057

## Total cholesterol (TC)

*ABCA1* gene and, *see* Total cholesterol, *ABCA1* gene and

$\beta_2$ -ADR Arg16Gly polymorphism and, 1184

Total cholesterol (TC) (*Continued*)

in atherosclerosis, *see* Total cholesterol in atherosclerosis

in CAD, *see* Total cholesterol, CAD and

in disabled hospitalized older subjects, HHcy and, 1018

in dyslipidemic CRF subjects on HD, 1114

during estrous cycle, 140

exercise effects on, *see* Total cholesterol, exercise effects on fat mass and, in acute SCI subjects, 991

HF/HC diet effects on, 1023

in hypercholesterolemia, *see* Total cholesterol in hypercholesterolemia

in hypothyroidism, *see* Total cholesterol in hypothyroidism

in IDDM, *see* Total cholesterol in IDDM

in IGT first-degree relatives of African American NIDDM subjects, 1553

in IR, *see* Total cholesterol in IR

in Japanese subjects, *see* Total cholesterol in Japanese subjects

in Korean women, AT distribution and, 1541

leptin levels and, 1412-1414

in MS, *see* Total cholesterol in MS

in NIDDM, *see* Total cholesterol in NIDDM

in non-obese subjects, *see* Total cholesterol in non-obese subjects

in obesity, *see* Total cholesterol in obesity

plasma, *see* Total plasma cholesterol

plasma LDL clearance and, 484

plasma vitamin K transport and, 216

in postpubertal Asian Indian adolescents, 1338

$\omega$ -3 PUFAs and, *see* Total cholesterol,  $\omega$ -3 PUFAs and

in SCI, *see* Total cholesterol in SCI

serum, *see* Serum cholesterol

in Vietnamese children with apo E polymorphism, 1519

in young subjects with NIDDM parents, 756

Total cholesterol (TC), *ABCA1* gene and

*ABCA1* gene expression-fasting glucose relationship in normoglycemic men and, 19

*ABCA1* gene polymorphism-TC association in Japanese school-age children and, 183

Total cholesterol (TC), CAD and

in PM women on ERT and at risk for CAD, aerobic exercise and high-fiber, low-fat diet effects on, 378

red and white wine drinking effects on, 320

serum, in CAD men, 425

Total cholesterol (TC), exercise effects on

blood, apo E polymorphism association with  $\dot{V}O_{2max}$  and, in exercising and sedentary subjects, 111-113

in overweight nondiabetic and NIDDM subjects, 1236

serum, apo E genotype and changes in, in endurance exercise, 196, 198-200

Total cholesterol (TC),  $\omega$ -3 PUFAs and

in FCHL, 154

plasma, effects of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol on, 237

in SCI men with MS, 1373, 1374

WPG effects on, 1311

Total cholesterol (TC) in atherosclerosis

carotid atherosclerosis, vascular dementia and, 477

in premature atherosclerosis with normocholesterolemia and daytime hypertriglyceridemia, 50

Total cholesterol (TC) in hypercholesterolemia

in mild hypercholesterolemia, 1073

serum LPL concentration and, 527, 528

Total cholesterol (TC) in hypothyroidism

and effects of T<sub>4</sub> therapy on endothelial function, 279

in subclinical hypothyroidism, CV disease risk factors and, 1513

- Total cholesterol (TC) in IDDM  
 energy substrate oxidation and, 656  
 in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641  
 plasma apo C-3 polymorphisms and, 1299
- Total cholesterol (TC) in IR  
 with CHD, 853  
 with LVH, candesartan effects on, 779  
 plasma NEFA regulation and, 1198  
 visceral AT and TG FA content and, 312  
*see also* Total cholesterol in IR with microalbuminuria
- Total cholesterol (TC) in IR with microalbuminuria  
 cardiovascular autonomic dysfunction and, 1360, 1362  
 and cilostazol effects on microalbuminuria, 1407  
 in NIDDM, glycemic control effects on, 354
- Total cholesterol (TC) in Japanese NIDDM subjects  
 with incipient nephropathy, 1224  
 insulin secretion and insulin sensitivity and, 832
- Total cholesterol (TC) in Japanese subjects  
 with beta-cell dysfunction, 950  
 and relationship between leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, HOMA IR index, serum soluble leptin receptor, serum leptin, serum adiponectin, and lipids, 881-883  
*see also* Total cholesterol in Japanese NIDDM subjects
- Total cholesterol (TC) in MS, 312  
 with obesity and chronic renal disease, 1257  
 in SCI men, 1373, 1374
- Total cholesterol (TC) in NIDDM  
 and association of corrected QT intervals with carotid artery IMT, 1155  
 and in at-risk for NIDDM subjects, 224, 226  
 with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360, 1362  
 and correlation of HbA<sub>1c</sub> with lipid composition in RBC membrane, 124  
 with IGT, 646  
 insulin therapy effects on, 694, 697, 698  
 in Japanese NIDDM subjects, *see* Total cholesterol in Japanese NIDDM subjects  
 metformin effects on, 161  
 microalbuminuria and, 354  
 in overweight NIDDM subjects, 1236  
 Pancreas Tonic effects on, 1169  
 serum PON1 polymorphism, vascular complications, plasma oxidized LDL level and, 299
- Total cholesterol (TC) in non-obese subjects  
 in non-obese men, and AT as fibrinogen level predictor, 985, 986  
 in non-obese premenopausal women, metabolic risk and, 1068-1070
- Total cholesterol (TC) in obese adolescents  
 in hyperuricemic Japanese male adolescents, 450, 452  
 serum TNF- $\alpha$  and, 864, 865
- Total cholesterol (TC) in obese women  
 effects of moderate weight loss and sibutramine or orlistat on, 432  
 in obese PM women, fluvastatin effects on, 736
- Total cholesterol (TC) in obesity  
 in children, 1244  
 in insulin-resistant Japanese subjects, 651  
 in Korean subjects, -3826A $\rightarrow$ G UCP-1 polymorphism effects on level of LDL-C and, 1057  
 with normal FPG or IGT, effects of weight loss on, 1097  
 and smoking-ADMA-obesity relationship, 1575, 1576
- Total cholesterol (TC) in obesity (*Continued*)  
*see also* Total cholesterol in obese adolescents; Total cholesterol in obese women
- Total cholesterol (TC) in SCI  
 and fat mass in acute SCI subjects, 991  
 in SCI men, 1373, 1374
- Total fat mass (FM) of lipodystrophic HIV-infected subjects, 1567
- Total homocysteine (tHcy) in subclinical hypothyroidism, 1513
- Total parenteral nutrition (TPN), lipid-containing, regulation of serum lipid EFAD in short-gut subjects on, 273-277
- Total plasma cholesterol (C)  
 and anti-inflammatory effects of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol, 237  
 HF/HC diet effects on, 819  
 in HL deficiency, 522  
 in IDDM, oxidation of glycated and nonglycated LDLs and, 970  
 in Spanish children, 1046
- Total plasma protein, beer ingestion and sauna bathing effects on, 774
- Total plasma triglycerides (TGs) in IDDM, oxidation of glycated and nonglycated LDLs and, 970
- Total serum cholesterol (C) in CAD men, 425
- Total testosterone  
 in older NIDDM men with partial androgen deficiency, 668  
 in PM women, insulin sensitivity and, 508-510
- Total triglyceride(s) (TGs)  
 plasma, in IDDM, oxidation of glycated and non-glycated LDLs and, 970  
 and plasma vitamin K transport, 216
- TPN (total parenteral nutrition), lipid-containing, regulation of serum lipid EFAD in short-gut subjects on, 273-277
- Traditional lifestyle, effects of agricultural lifestyle versus, on leptin in Ecuadorian Amazon Shuar women, 1355-1358
- Training, *see* Exercise
- Transcription factors in 3T3-L1 preadipocytes, FPFS-410 effects on 1534
- Transfer protein, *see* Cholesteryl ester transfer protein; Phospholipid transfer protein
- Transferase  
 point mutation of hypoxanthine phosphoribosyl, responsible for hyperuricemia in women, 1500-1502  
*see also* Acyl-coenzyme A:cholesterol acyltransferase; Alanine aminotransferase; Aspartate aminotransferase
- Transferrin (Trf)  
 in disabled hospitalized older subjects, HHcy and, 1018  
 serum, food intake, AT and, in kidney transplantation recipients, 614-619
- Transforming growth factor- $\beta$ 1 (TGF- $\beta$ 1), effects of high glucose and insulin on expression of, in cardiac fibroblasts, 712
- Transgenic subjects, male, glucose intolerance development in, with GSK-3 $\beta$  overexpression in skeletal muscle, 1322-1330
- Transplantation  
 kidney, correlation between AT, serum leptin, and food intake during 6-month period following, 614-619  
 pancreatic islet, serum resistin levels in IDDM before and after, 403-404
- Trans-sulfuration (TS) of homocysteine, 1480-1483
- Trf, *see* Transferrin
- Triacylglycerol (TAG)  
 in CRF, 1063  
 fiber type- and FA composition-dependent effects of HF diet on content of FATP-1 and, in skeletal muscle, 1032-1036  
 plasma, during exercise at cold temperature, 204  
 PP, in NIDDM, alcohol effects on, 77-83

Triacylglycerol (TAG) (*Continued*)

WPG effects on, 1311-1312

## Triglyceride(s) (TG)

*ABCA1* gene and, *see* Triglyceride(s), *ABCA1* gene and

blood, *see* Blood triglycerides

in CAD men, effects of red and white wine drinking on, 319, 320

CV disease risk factors and, *see* Triglyceride(s), CV disease risk factors and

diet effects on, *see* Triglyceride(s), diet effects on

in DM, *see* Triglyceride(s) in DM

in dyslipidemic CRF subjects on HD, 1114, 1115

erythrocyte membrane, 574

during estrous cycle, 140

exercise and, *see* Triglyceride(s), exercise and

fasting, *see* Fasting triglycerides

and fat mass in acute SCI subjects, 991

and GSK-3 $\beta$  in transgenic subjects, 1328

in HD subjects, 1014

in hypercholesterolemia, *see* Triglyceride(s) in hypercholesterolemia

in hypothyroidism, *see* Triglyceride(s) in hypothyroidism

in IGT first-degree relatives of African American NIDDM subjects, 1553

intramuscular, after 1-day hindlimb suspension, 1217

in IR, *see* Triglyceride(s) in IR

in Japanese subjects, *see* Triglyceride(s) in Japanese subjects

in Korean women, AT distribution and, 1541

leptin levels and, 1412-1414

MHN-01 effects on concentration of, 981

in non-obese subjects, *see* Triglyceride(s) in non-obese subjects

in obesity, *see* Triglyceride(s) in obesity

in overweight women, serum TNF, TNF- $\beta$ , NO and, 1269

plasma, *see* Plasma triglycerides

and plasma LDL clearance, 484

in PM women, simvastatin effects on BMD and, 745, 746

$\omega$ -3 PUFA effects on, *see* Triglyceride(s),  $\omega$ -3 PUFA effects on

serum, *see* Serum triglycerides

smoking effects on, 860

total, *see* Total triglyceride(s)

VAT accumulation and fatty acid content of, associated with MS components, 310-317

in young subjects, *see* Triglyceride(s) in young subjects

Triglyceride(s) (TG), *ABCA1* gene and

*ABCA1* gene expression-fasting glucose relationship in normoglycemic men and, 19

*ABCA1* gene polymorphism-TG association in Japanese school-age children and, 183, 184

## Triglyceride(s) (TG), CV disease risk factors and

in Kuwaiti children, 640, 641

in overweight and normoponderal subjects, 498

in subclinical hypothyroidism, 1513

## Triglyceride(s) (TG), diet effects on

CV disease risk factors and, 1437, 1438

effects of aerobic exercise with high-fiber, low-fat diet in PM women on ERT, 378

HF diet effects, 1034

HF/HC diet effects, 819, 1023

## Triglyceride(s) (TG), exercise and

acipimox-induced reduction of, during exercise at cold temperature, 1133

blood, apo E polymorphism- $\dot{V}O_{2max}$  association and, 111-113

endurance exercise, 196, 198-200

in overweight nondiabetic and NIDDM subjects, 1236

in PM women on or not on ERT, 1194

Triglyceride(s) (TG), exercise and (*Continued*)

$\omega$ -3 PUFA and exercise effects, 751

in soccer players, 1263

*see also* Triglyceride(s) in exercising PM women on ERT

Triglyceride(s) (TG),  $\omega$ -3 PUFA effects on

with exercise, 751

of  $\omega$ -3 PUFAs alone or combined with *all-rac*  $\alpha$ -tocopherol, 154, 155

## Triglyceride(s) (TG) in DM

in STZ-DM, NO-1886 effects on, 261

*see also* Triglyceride(s) in IDDM; Triglyceride(s) in NIDDM

## Triglyceride(s) (TG) in exercising PM women on ERT

on or not on ERT, 1194

with risk for CAD, effects of aerobic exercise with high-fiber, low-fat diet, 378

## Triglyceride(s) (TG) in hypercholesterolemia

in mild hypercholesterolemia, 1073, 1074

relation between serum LPL concentration and metabolism of, 526-531

## Triglyceride(s) (TG) in hypothyroidism

effects of T<sub>4</sub> therapy on, on, 279

in subclinical hypothyroidism, CV disease risk factors and, 1513

## Triglyceride(s) (TG) in IDDM

and glycemic control effects on F<sub>2</sub> isoprostanol level at IDDM onset, 1119

in Kuwaiti IDDM children and adolescents, CV disease risk factors and, 640, 641

## Triglyceride(s) (TG) in IR

with associated CV disease risk factors in overweight and normoponderal subjects, 498

central HPA dysfunction and, 722, 724

with CHD, 853, 854

and cilostazol effects on microalbuminuria, 1407

indices of IR and, 1524

with LVH, candesartan effects on, 779

with microalbuminuria, *see* Triglyceride(s) in microalbuminuric IR plasma NEFA regulation and, 1198

serum GPI-PLD and, 139

in Vietnamese children with apo E polymorphism, 1519

*see also* Triglyceride(s) in obesity with IR

## Triglyceride(s) (TG) in Japanese NIDDM subjects

with incipient nephropathy, 1224

insulin sensitivity, insulin secretion and, 832

## Triglyceride(s) (TG) in Japanese subjects

with beta-cell dysfunction, 950

with NIDDM, *see* Triglyceride(s) in Japanese NIDDM subjects and relationship between leptin receptor gene Lys109Arg and Gln223Arg polymorphisms, HOMA IR index, serum soluble leptin receptor, serum leptin, serum adiponectin, 881-883

## Triglyceride(s) (TG) in microalbuminuric IR

cilostazol effects on, 1407

with NIDDM, cardiovascular autonomic dysfunction and, 1360, 1362

## Triglyceride(s) (TG) in microalbuminuric NIDDM, 354

adiponectin, C-reactive protein and, 1456, 1457

cardiovascular autonomic dysfunction, IR and, 1360, 1362

## Triglyceride(s) (TG) in NIDDM

and association of corrected QT intervals with carotid artery IMT, 1155, 1156

and in at-risk for NIDDM subjects, 224, 226

fasting, *see* Fasting triglycerides

with IGT, 646

insulin therapy effects on, 694, 697

metformin effects on, 161



- Triglyceride(s) (TG) in NIDDM (*Continued*)  
 with microalbuminuria, *see* Triglyceride(s) in microalbuminuric NIDDM  
 rosiglitazone effects on, 1123
- Triglyceride(s) (TG) in non-obese subjects  
 in non-obese men, AT as fibrinogen level predictor and, 985, 986  
 in non-obese premenopausal women, metabolic risk and, 1068-1070
- Triglyceride(s) (TG) in obese women  
 effects of moderate weight loss and sibutramine or orlistat on, 432  
 PM women, fluvastatin effects on, 736
- Triglyceride(s) (TG) in obesity  
 adolescents, 864, 865  
 Korean subjects, -3826A→G UCP-1 polymorphism effects on level of LDL-C and, 1057  
 with MS and chronic renal disease, 1257  
 with NIDDM, adiponectin and C-reactive protein and, 1456, 1457;  
*see also* Fasting triglycerides in obese NIDDM subjects  
 with normal FPG or IGT effects of weight loss on, 1097  
 in obese children, 1244  
 and smoking-ADMA-obesity relationship, 1575, 1576  
*see also* Triglyceride(s) in obese women; Triglyceride(s) in obesity with IR
- Triglyceride(s) (TG) in obesity with IR  
 associated CV disease risk factors and, 498  
 in Japanese men, Ob-R polymorphism associated with, 651  
 in treatment-seeking subjects, 436
- Triglyceride(s) (TG) in young men  
 with hypertensive parents, 470  
 serum adiponectin association with, 589-593
- Triglyceride(s) (TG) in young subjects  
 with NIDDM parents, 756  
*see also* Triglyceride(s) in young men
- Triglyceride lipase (TGL), hepatic, endurance exercise effects on, 196, 198-200
- Triglyceride-rich lipoprotein (TRL), plasma vitamin K transport and, 215-221
- Triiodothyronine ( $T_3$ ) in hypothyroidism  
 free, in subclinical hypothyroidism, CV disease risk factors and, 1513  
 $T_4$  therapy and, 279
- Triphosphate, *see* Adenosine triphosphate-citrate lyase; Adenosine triphosphate-citrate lyase mRNA
- Triple mutations of *HNF-4 $\alpha$*  gene associated with early-onset NIDDM in Filipino family, 953-963
- TRL (triglyceride-rich lipoprotein), plasma vitamin K transport and, 215-221
- Troglitazone (CS-045; TGZ)  
 4-aminopyridine effects on delayed vasorelaxation by, 147-152  
 for obese PCOS women, 366, 371
- Trp64Arg polymorphism, *see*  $\beta_3$ -Adrenergic receptor, Trp64Arg polymorphism of
- Tryptophan (Trp)  
 plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392  
*see also*  $\beta_3$ -Adrenergic receptor, Trp64Arg polymorphism of
- TS (trans-sulfuration) of homocysteine, 1480-1483
- 3,3'- $T_2$ S (3,3'-diiodothyronine sulfate) in thyroidal diseases, nonthyroidal diseases, pregnancy, and fetal/neonatal life, 538-543
- TSH, *see* Thyrotropin in hypothyroidism
- Tumor cells, low temperature blocking hCG stimulatory effects on steroidogenic acute regulatory protein mRNA and testosterone production but not cAMP production in tumor cells, 955-958
- Tumor necrosis factor (TNF)  
 serum, serum concentration of NO, TNF- $\beta$ , and soluble receptors of, in overweight and obese women, 1268-1273  
*see also* Tumor necrosis factor  $\alpha$ ; Tumor necrosis factor  $\beta$ ; Tumor necrosis factor receptor
- Tumor necrosis factor  $\alpha$  (TNF- $\alpha$ )  
 effects of  $\omega$ -3 PUFAs alone or with *all-rac*  $\alpha$ -tocopherol on, 236-240  
 effects of weight loss by obese subjects with normal FPG or IGT on, 1097  
 in inflammation of chronic disease, 901  
 in NIDDM and in at-risk for NIDDM subjects, 224  
 resistance exercise effects on insulin-mediated glucose disposal with minimal effects on, in older hypertensive subjects, 397-402  
 serum, *see* Serum tumor necrosis factor- $\alpha$
- Tumor necrosis factor  $\beta$  (TNF- $\beta$ ), serum concentration of NO and soluble receptors of, in overweight and obese women, 1268-1273
- Tumor necrosis factor receptor (TNF-R), serum concentration of NO, TNF- $\beta$  and, in overweight and obese women, 1268-1273
- TXB<sub>2</sub> (thromboxane B<sub>2</sub>), effects of inhibition of, on apo A-1 promoter activity in hepatoma cells, 177
- Type 1 collagen,  $\beta$ -carboxy terminal telopeptide of, in adrenal insufficiency, 1252
- Type 1 diabetes mellitus, *see* Insulin-dependent diabetes mellitus
- Type 2 diabetes mellitus, *see* Non-insulin-dependent diabetes mellitus
- Tyrosine (Tyr), plasma, effects of, on whole-body protein synthesis in hyperinsulinemic young men, 392
- TZDs (thiazolidinediones), *see* FPFS-410; Non-insulin-dependent diabetes mellitus, pioglitazone effects on; Rosiglitazone effects; Troglitazone
- UA, *see* Uric acid
- UACR (urinary albumin to creatinine ratio), glycemic control effects on, in NIDDM, 353-357
- UCA (ursocholic acid), effectiveness of, in CTX, 556-562
- UCP-1 (uncoupling protein-1) -3826A→G polymorphism, effects of, on LDL-C level in Korean obese subjects, 1054-1059
- UCP-1 mRNA, *see* Uncoupling protein-1 mRNA
- UCP-2 (uncoupling protein-2) mRNA (messenger ribonucleic acid) in diabetes, CL316,243 effects on, 804
- UCP-3 (uncoupling protein-3) mRNA (messenger ribonucleic acid) in diabetes, CL316,243 effects on, 802, 804
- UCP-3 (uncoupling protein-3) polymorphism, food intake and body composition associated with, 458-464
- UDCA (ursodeoxycholic acid), effectiveness of, in CTX, 556-562
- Uncomplicated pregnancy, leucine turnover in third trimester of, 545-549
- Uncoupling protein-1 (UCP-1) mRNA (messenger ribonucleic acid) in AT, effects of restricted diet on, 30-31  
 in diabetes, CL316,243 effects on, 802, 804
- Uncoupling protein-1 (UCP-1) -3826A→G polymorphism effects of, on LDL-C level in Korean obese subjects, 1054-1059  
 not associated with increased leptin levels in Spanish subjects, 1411-1416
- Uncoupling protein-2 (UCP-2) mRNA (messenger ribonucleic acid) in diabetes, CL316,243 effects on, 804
- Uncoupling protein-3 (UCP-3) mRNA (messenger ribonucleic acid) in diabetes, CL316,243 effects on, 802, 804
- Uncoupling protein-3 (UCP-3) polymorphism, food intake and body composition associated with, 458-464
- Urate in young subjects with NIDDM parents, 756

- Urea  
 plasma, in DCA-induced hypolactatemia in cirrhotic and noncirrhotic subjects, 1089  
 serum, in HD subjects, 1014
- Urea nitrogen, *see* BUN
- Uric acid (UA)  
 in IR with LVH, candesartan effects on, 779  
 in NIDDM, *see* Uric acid in NIDDM  
 plasma, sauna bathing and beer ingestion effects on concentration of, 772-776  
 point mutation in HPRT responsible for hyperuricemia in women, 1500-1502  
 in preeclampsia, 1434  
*see also* Hyperuricemia
- Uric acid (UA) in NIDDM  
 with cardiovascular autonomic dysfunction, microalbuminuria, and IR, 1360, 1362  
 serum, in IDDM, and oxidation of glyated and nonglyated LDLs, 970
- Urinary excretion  
 effects of glycemic control in NIDDM on UACR, 353-357  
 of hydroxyproline, deoxyipyridinol, pyridinoline, Ca, phosphorus, and creatinine in severe lipodystrophy, leptin replacement therapy effects on, 516  
 of plasma purines, beer ingestion and sauna bathing effects on, 773-774  
 of serum sodium, beer ingestion and sauna bathing effects on, 774  
 of sodium, *see* Urinary excretion, sodium  
*see also* Albuminuria
- Urinary excretion, sodium  
 in hyperinsulinemia with hypertension, 1306  
 of serum sodium, beer ingestion and sauna bathing effects on, 774
- Urine volume, beer ingestion and sauna bathing effects on, 774
- Ursocholic acid (UCA), effectiveness of, in CTX, 556-562
- Ursodeoxycholic acid (UDCA), effectiveness of, in CTX, 556-562
- VaD (vascular dementia), sdLDLs, carotid atherosclerosis and, 476-482
- Valine, *see* Plasma valine
- Vanadate, oral, with tea extract, effects of, on morbidity and mortality in STZ-DM, 1145-1151
- Vascular cell(s)  
 stromal, from omental and subcutaneous AT of obese subjects, differentiation and proliferation of, compared, 634  
*see also* Vascular cell adhesion molecule
- Vascular cell adhesion molecule (VCAM)  
 in NIDDM and in at-risk for NIDDM subjects, 224, 226  
*see also* Vascular cell adhesion molecule-1
- Vascular cell adhesion molecule-1 (VCAM-1)  
 CAD and, *see* Vascular cell adhesion molecule-1, CAD and metformin effects on, in NIDDM, 161
- Vascular cell adhesion molecule-1 (VCAM-1), CAD and plasma, effects of red and white wine on, in CAD men, 318-323  
 in postmenopausal women on ERT and at risk for CAD, effects of high-fiber, low-fat diet and exercise on, 377-381
- Vascular complications, correlation between plasma oxidized LDLs, serum PON1 polymorphism and, in NIDDM, 297-302
- Vascular dementia (VaD), sdLDLs, carotid atherosclerosis and, 476-482
- Vascular disease  
 cerebral and microvascular, in NIDDM, serum PON1 polymorphism, plasma oxidized LDL level and, 298-300  
*see also* Risk factors for CV disease
- Vascular endothelial growth factor (VEGF), plasma, in DM, relation between concentration of plasma ET, glycemic control and, 550-555
- Vascular reactivity, absence of acute effects of red wine drinking and food intake on, 1081-1086
- Vasopressin, *see* Arginine-vasopressin
- Vasorelaxation, 4AP effects on delayed, by troglitazone, 147-152
- VAT, *see* Visceral adipose tissue
- VCAM, *see* Vascular cell adhesion molecule; Vascular cell adhesion molecule-1
- VEGF (vascular endothelial growth factor), relation between concentration of plasma ET, glycemic control and, in DM, 550-555
- Venous hyperinsulinemia, effects of portal, on gut glucose absorption in conscious subjects, 1290-1295
- Ventricular hypertrophy, left, candesartan effects on IR and, 777-781
- Vertebral bone mineral content (BMC) after RYBG and ASGB for morbid obesity, 920
- Vertebral bone mineral density (BMD) after RYBG and ASGB for morbid obesity, 920
- Very-low-density lipoprotein (VLDL)  
 in HL deficiency, 523  
 plasma, in PM and premenopausal women, sex steroids and, 189, 190  
*see also* Very-low-density lipoprotein-cholesterol
- Very-low-density lipoprotein-cholesterol (VLDL-C)  
 in dyslipidemic CRF subjects on HD, 1115  
 in exercise, *see* Very-low-density lipoprotein-cholesterol in exercise  
 in HD subjects, 1014  
 in hypercholesterolemia, serum LPL concentration and, 528  
 in IDDM, *see* Very-low-density lipoprotein-cholesterol in IDDM  
 plasma, HF/HC diet effects on, 819  
 S-2E effects on, in mixed hyperlipidemia, 682-683
- Very-low-density lipoprotein-cholesterol (VLDL-C) in exercise apo E polymorphism association with changes in  $\dot{V}O_{2\max}$  and, in sedentary subjects and exercising subjects, 111-113  
 in soccer players, 1264
- Very-low-density lipoprotein-cholesterol (VLDL-C) in IDDM and oxidation of glyated and nonglyated LDLs, 970  
 plasma apo C-3 polymorphisms and, 1299, 1301
- Vietnamese children, relationship of apo E polymorphism to plasma lipids and Lps in, 1517-1521
- Visceral adipose tissue (VAT)  
 contribution of cardiorespiratory fitness and, to hyperinsulinemia, dyslipidemia, and hypertension in NIDDM with IGT, 644-649  
 HF diet effects on, 913, 1033  
 in IR with obesity, 436  
 TG fatty acid content and accumulation of, associated with MS components, 310-317
- Vitamin(s) in HF diet, 1033
- Vitamin B<sub>12</sub> in subclinical hypothyroidism, 1513
- Vitamin C (ascorbic acid)  
 CV disease risk factors and intake of, 1439  
 and plasma ADMA in mild hypercholesterolemia, 1073
- Vitamin D, relation of serum PTH level to, in eucalcemia after parathyroidectomy for primary hyperthyroidism, 1101-1106
- Vitamin D<sub>12</sub> in disabled hospitalized older subjects, HHcy and, 1018
- Vitamin E, *see*  $\alpha$ -Tocopherol
- Vitamin K (phyloquinone), transport of plasma, in men consuming deuterium-labeled collard greens, 215-221
- VLDL, *see* Very-low-density lipoprotein
- VLDL-C, *see* Very-low-density lipoprotein-cholesterol

- $\dot{V}O_{2max}$  (maximum oxygen uptake)  
 by non-obese premenopausal women, 1068  
 and risk factors for CHD in NIDDM with IGT, 646  
*see also*  $\dot{V}O_{2max}$  during exercise
- $\dot{V}O_{2max}$  (maximum oxygen uptake) during exercise  
 apo E genotype and changes in serum lipids in endurance exercise, 193-202  
 apo E polymorphism and changes in blood lipids and, 108-116  
 and exercise effects in overweight nondiabetic and NIDDM subjects, 1236  
 by nondiabetic and IDDM smokers, 1140-1144  
 OC effects on, 350  
 by PM women on or not on ERT on, 1194  
 $\omega$ -3 PUFA and exercise effects on, 750, 1366  
 and resistance exercise effects on insulin-mediated glucose disposal in older hypertensive subjects, 399  
*see also*  $\dot{V}O_{2max}$  during exercise at cold temperature
- $\dot{V}O_{2max}$  (maximum oxygen uptake) during exercise at cold temperature  
 acipimox-induced plasma NEFA reduction and, 1133  
 and substrate oxidation, 204, 205
- Von Willebrand factor (vWF) antigen in young subjects with NIDDM parents, 756
- Von Willebrand factor (vWF) in NIDDM and at-risk for NIDDM subjects, 224, 226
- Waist circumference (WC)  
 and CV disease risk factors, 1437, 1438  
 of Ecuadorian Amazon Shur women, 1356  
 exercise and, *see* Waist circumference, exercise and  
 insulin therapy of NIDDM effects on, 694, 697  
 of MS subjects, 312  
 of non-obese subjects, *see* Waist circumference of non-obese subjects  
 of obese subjects, *see* Waist circumference of obese subjects  
 of postpubertal Asian Indian adolescents, 1338-1340  
 of young men with hypertensive parents, 470
- Waist circumference (WC), exercise and  
 and alcohol, exercise, and adiposity relation to HDL-C levels and, 704  
 exercise effects on NIDDM women's, 285  
 exercise effects on PM women's, on or not on ERT on, 1194  
 oral contraceptives and, 350
- Waist circumference (WC) of non-obese subjects  
 of men, and AT as fibrinogen level predictor, 985, 986  
 of premenopausal women, 1068
- Waist circumference (WC) of obese subjects  
 of adolescents, 864  
*see also* Waist circumference of obese women
- Waist circumference (WC) of obese women  
 effects of moderate weight loss and orlistat or sibutramine treatment on serum adipocytokines and, 430-434  
 fluvastatin effects on, 735, 736  
 insulin-resistant women, 281
- Waist-to-hip ratio (WHR)  
 adiponectin and, *see* Waist-to-hip ratio, adiponectin and  
 and AT distribution in Korean women, 1539, 1541  
 and CV disease risk factors, 1437, 1438  
 exercise effects on, *see* Waist-to-hip ratio, exercise effects on  
 of insulin-resistant subjects, 722  
 and isotretinoin effects on insulin sensitivity and plasma TGs, 5  
 leptin levels and, 1412-1414  
 of lipodystrophic HIV-infected subjects, 1567  
 of non-obese men, and AT as fibrinogen level predictor, 985, 986
- Waist-to-hip ratio (WHR) (*Continued*)  
 of obese subjects, *see* Waist-to-hip ratio of obese subjects  
 of PM women, *see* Waist-to-hip ratio of PM women  
 of postpubertal Asian Indian adolescents, 1338-1340  
 of prematurely atherosclerotic subjects with normocholesterolemia and daytime hypertriglyceridemia, 50  
 or premenopausal women, sex steroids, plasma Lp and, 189  
 and smoking effects on intravascular remodeling of HDL particles, 860  
 of young subjects, *see* Waist-to-hip ratio of young subjects
- Waist-to-hip ratio (WHR), adiponectin and  
 and levels of adiponectin, 2  
 NEFA regulation of adiponectin and, 791
- Waist-to-hip ratio (WHR), exercise effects on  
 apo E genotype, changes in serum lipids and, 195, 198, 199  
 and OC effects on glucoregulatory responses to exercise, 350  
 with  $\omega$ -3 PUFAs, 750, 1366  
 in soccer players, 1263
- Waist-to-hip ratio (WHR) of obese subjects  
 of obese adolescents, 864  
*see also* Waist-to-hip ratio of obese women
- Waist-to-hip ratio (WHR) of obese women  
 PM women, fluvastatin effects on, 735, 736  
 sex steroids and plasma Lp and, 189
- Waist-to-hip ratio (WHR) of PM women  
 effects of exercise by PM women's on or not on ERT on, 1194  
 of obese women, fluvastatin effects on, 735, 736  
 sex steroids, plasma Lp and, 189
- Waist-to-hip ratio (WHR) of young subjects  
 with NIDDM parents, LDL susceptibility to oxidation and circulating adhesion molecules and, 756  
 of young men with hypertensive parents, 470, 473
- WAT, *see* White adipose tissue
- Water diuresis, changes induced by, in renal cortex oxygenation and endothelial function in NIDDM and in at-risk for NIDDM subjects, 222-227
- WC, *see* Waist circumference
- Weight, *see* Body weight; Organ weight; Weight gain; Weight loss
- Weight gain  
 fenofibrate effects on white adipose tissue and HF diet-induced, in ovariectomized subjects, 1284-1289  
 in GDM,  $\beta_3$ -ADR Trp64Arg polymorphism and, 1137
- Weight loss  
 leptin effects on HPA axis activity, dysphagia and, in STZ-DM, 1558-1564  
*see also* Weight loss by obese subjects
- Weight loss by obese subjects  
 due to HF diet-induced obesity, leptin therapy to augment leptin circadian rhythm after, 782-789  
 with normal fasting plasma glucose or impaired glucose tolerance, effects of, on insulin release and IR, 1095-1100  
*see also* Weight loss by obese women
- Weight loss by obese women  
 moderate, *see* Moderate weight loss by obese women  
 with PCOS, 367-368  
 and racial differences in -adrenergic receptor density in subcutaneous and omental AT, 247-251
- Wheat germ policosanols (WGP), effects of, on normal and mildly elevated plasma cholesterol, 1309-1314
- White adipose tissue (WAT)  
 in CRF, upregulation of lipogenic enzyme and SREBP-1 mRNA in, 1060-1065  
 fenofibrate effects on, and HF diet-induced weight gain in ovariectomized subjects, 1284-1289

- White blood cells, WPG effects on, 1312
- White wine drinking, effects of red and, on circulating inflammation-sensitive molecules in men with CAD, 318-323
- Whole-body glucose, oral glucose metabolism and, in born small-for-gestational-age children and, 847-851
- Whole-body insulin resistance (IR), development of, after 1-day hindlimb suspension, 1215-1222
- Whole-body protein, plasma AA concentration and synthesis of, in young men, 388-396
- WHR, *see* Waist-to-hip ratio
- Wine drinking  
effects of white, on circulating inflammation-sensitive molecules in men with CAD, 318-323  
*see also* Red wine drinking
- Women  
Ecuadoran Amazon Shur, effects of agricultural versus traditional lifestyle on leptin in, 1355-1358  
exercising, *see* Women, exercising  
HC diet effects on atherogenic LDL particles in, 823-830  
hyperuricemic, HPRT point mutation in, 1500-1502  
Korean, effects of PPAR $\gamma$ 2 Pro12Ala polymorphism on AT distribution in, 1538-1543  
obese, *see* Women, obese  
postmenopausal, *see* Postmenopausal women  
pregnant, *see* Pregnancy  
premenopausal, *see* Premenopausal women  
*see also* Sex and specific conditions
- Women, exercising  
NIDDM, effects of resistance exercise on glycemic control in, 284-289  
*see also* Exercise
- Women, obese
- Women, obese (*Continued*)  
concentration of serum TNF soluble receptors, TNF- $\beta$ , and NO in overweight and, 1268-1273  
*see also* Obesity; Polycystic ovary syndrome, obesity and; Postmenopausal women, obese; Weight loss by obese women
- WPG (wheat germ policosanol), effects of, on normal and mildly elevated plasma cholesterol, 1309-1314
- Xanthine, plasma, sauna bathing and beer ingestion effects on concentration of, 772-776
- Xanthomatosis, cerebrotendinous, effectiveness of hydrophilic 7 $\beta$ -hydroxy bile acids, lovastatin, cholestyramine, and chenodeoxycholic acid in, compared, 556-562
- Xylitol in MNH-01 formula, 978
- Young men  
with hypertensive parents, insulin secretion, insulin sensitivity, and metabolic profile of, 469-475  
Japanese, Pro12Ala PPAR $\gamma$ 2 polymorphism associated with adiponectin levels in, 1548-1551  
plasma AA concentration and whole-body protein synthesis in, 388-396  
serum adiponectin association with LDL particle size, HDL-C, and TGs in, 589-593
- Young subjects  
with NIDDM parents, LDL susceptibility to oxidation and circulating adhesion molecules in, 755-759  
*see also* Young men
- Zinc (Zn)  
effects of Cu enzymes in CF before and after Cu supplementation with or without, 37-41  
effects of dietary restriction of, on metabolic rate and substrate utilization, 727-732