



**SPECIAL
SECTION**
PAGE 97

EASY, DELICIOUS HOMEMADE PIZZAS

Diabetes[®]

TAKE CONTROL

SELF-MANAGEMENT

NEW PRODUCTS ISSUE

→ **Using technology
to get connected**

→ **Wearables,
Implants and Apps**

→ **Navigating
mHealth**



Spinach and
Sausage Pizza
PAGE 62

Take 5
Your anytime,
anywhere
exercise break

MARCH/APRIL 2016/\$4.99

MEET NATALIE STRAND, M.D.

The first winner of
The Amazing Race
with diabetes.

Page 110



Cheryl Rosenfeld
Editorial Director, Wellness

Robin Morse
Vice President, Wellness

Diane Fennell
Senior Digital Editor

Jason Pomerantz
Director, Digital Media

James Moorehead
Director, Consumer Marketing

Stuart Crystal
Advertising Sales Director

Bob Beucler
Advertising Sales Manager

Kathy Jones Rizzi
Associate Publisher

Justin Patrick
Marketing Manager

Nicki Porter
Food Editor

Mike O'Leary
Art Director

Jaron Cote
Production Design Associate

Jeffrey C. Wolk
Chairman & Chief Executive Officer

Susan Fitzgerald
Chief Operating Officer

Courtney Carter
Vice President, Operations

Heidi Strong
Vice President, Digital Strategy

Justin Vuono
Director, Integrated Production

Laura Finamore
Operations Manager

Jessica Krogman
Sales Coordinator

Nora Frew
Circulation Operations Specialist

Peggy Maguire
Controller

Amanda Grubbs
General Staff Accountant

Tina McDermott
Staff Accountant

Heidie Hogan
Staff Accountant

Cathy Pearson
Marketing Analyst

Michael Ma
Technical Product Manager

National Publisher Services
Newsstand

Diabetes[®]

SELF-MANAGEMENT

EDITORIAL BOARD

Danial Baker,
PharmD, Director, Drug
Information Center,
Washington State University,
Spokane, Washington.

Virginia Peragallo-Dittko,
APRN, BC-ADM, MA, CDE,
Executive Director, Diabetes
and Obesity Institute,
Winthrop-University Hospital,
Mineola, New York.

David E. Goldstein, MD,
Director, Pediatric
Endocrinology and Diabetes,
University of Missouri Health
Science Center,
Columbia, Missouri.

Laura Hieronymus, DNP,
MSEd, RN, MLDE,
BC-ADM, CDE,
FAADE, University of Kentucky
Lexington, Kentucky.

Irl B. Hirsch, MD,
Medical Director, Diabetes Care
Center, University of
Washington Medical Center,
Seattle, Washington.

Lois Jovanovic, MD,
Physician Consultant,
Sansum Diabetes
Research Institute,
Santa Barbara, California.

Daniel L. Lorber, MD,
Medical Director, Diabetes Care
and Information Center of New
York, Flushing, New York.

William H. Polonsky,
PhD, CDE,
Assistant Clinical Professor,
Department of Psychiatry,
University of California,
San Diego.

Charles A. Reasner, MD,
Professor of Medicine and
Endocrinology, University of
Texas Health Science Center at
San Antonio, Texas.

L. Raymond Reynolds,
MD, FACP, FACE, ECNU,
Professor, Division of
Endocrinology,
University of Kentucky
College of Medicine,
Lexington, Kentucky.

Carolyn Robertson, APRN,
MSN, CS, BC-ADM, CDE,
Associate Director, New York
Diabetes Center, New York,
New York.

Jeanne L. Rosenthal, MD,
Attending Surgeon, Retinal
Service, New York Eye and Ear
Infirmary, New York, New York.

Bernard P. Shagan, MD,
Director, Diabetes Education
Center, Monmouth Medical
Center, Long Branch,
New Jersey.

Richard M. Weil, MEd, CDE,
Exercise Physiologist,
St. Luke's-Roosevelt Hospital
Center, New York, New York.

Stephen Z. Wolner, DDS,
New York, New York.

CONTRIBUTING EDITORS

Jean Betschart Roemer,
MSN, MN, CPNP, CDE,
Pediatric Nurse Practitioner,
Children's Hospital of Pittsburgh,
Pittsburgh, Pennsylvania.

Nancy Cooper, RD, CDE,
International Diabetes Center,
Minneapolis, Minnesota.

Robert S. Dinsmoor
South Hamilton,
Massachusetts.



Diabetes Self-Management, March/April 2016, Volume 33, Number 2. **Diabetes Self-Management** (ISSN 0741-6253) (USPS 003-865) is published bimonthly by Madavor Media, LLC, 25 Braintree Hill Office Park, Suite 404 Braintree, MA 02184. Periodicals postage paid at Boston, MA and at additional mailing offices. Copyright © 2016 Madavor Media, LLC. U.S. subscriptions \$29.94 per year. Postmaster: Please send changes of address to **Diabetes Self-Management**, P.O. Box 8507, Big Sandy, TX 75755-8507. For customer service or subscription information, please call (855) 367-4813. Advertising Sales: Madavor Media, LLC (800) 437-5828.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any other means, without the prior written permission of Madavor Media, LLC. Statements and opinions expressed in this publication are those of the authors and not necessarily those of the publishers or advertisers. The purpose of this magazine is to provide readers with accurate and up-to-date medical information. It is not intended to provide medical advice on personal health matters, which should be obtained directly from a physician. We regret that we are unable to respond to inquiries about personal health matters.

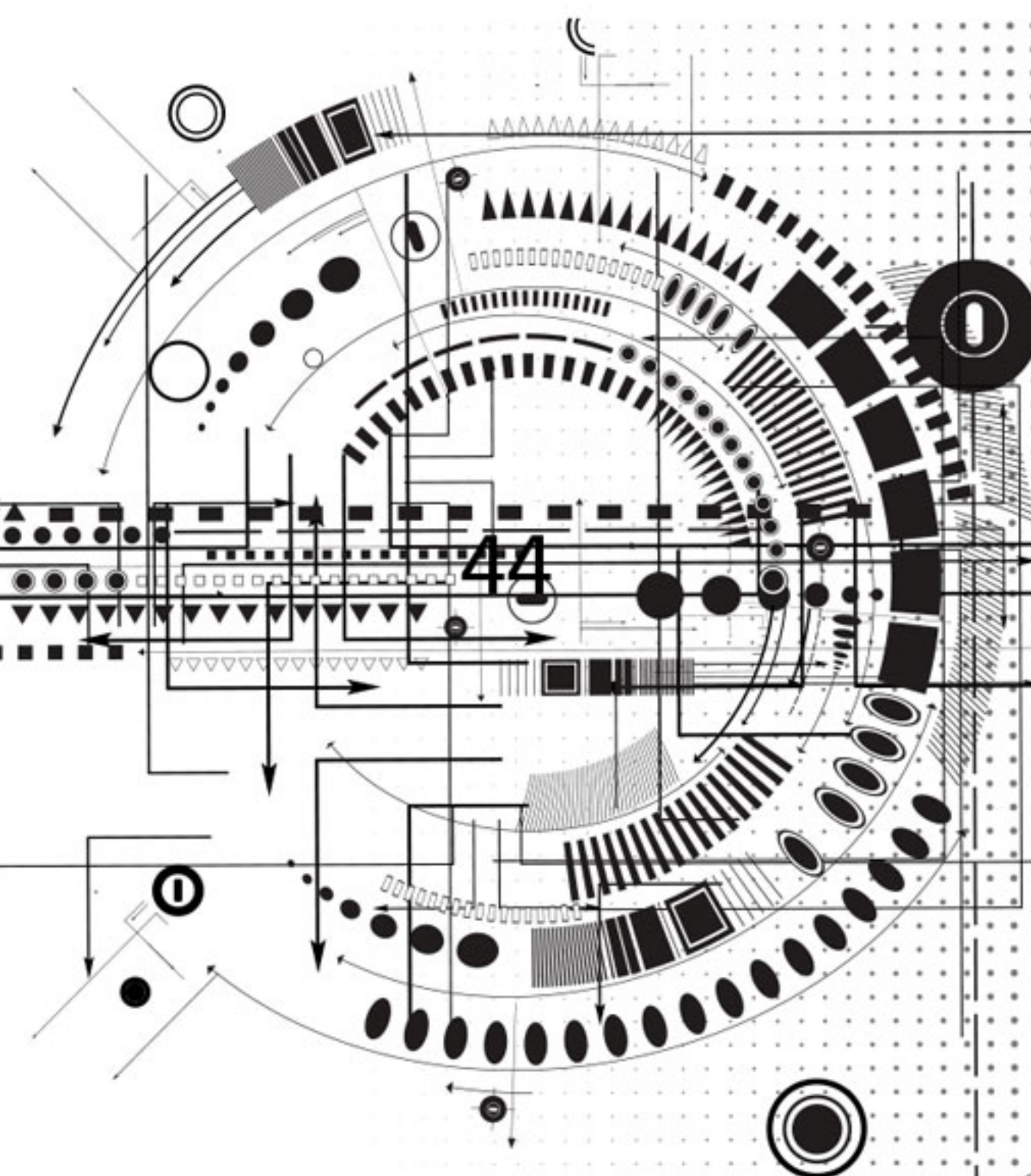
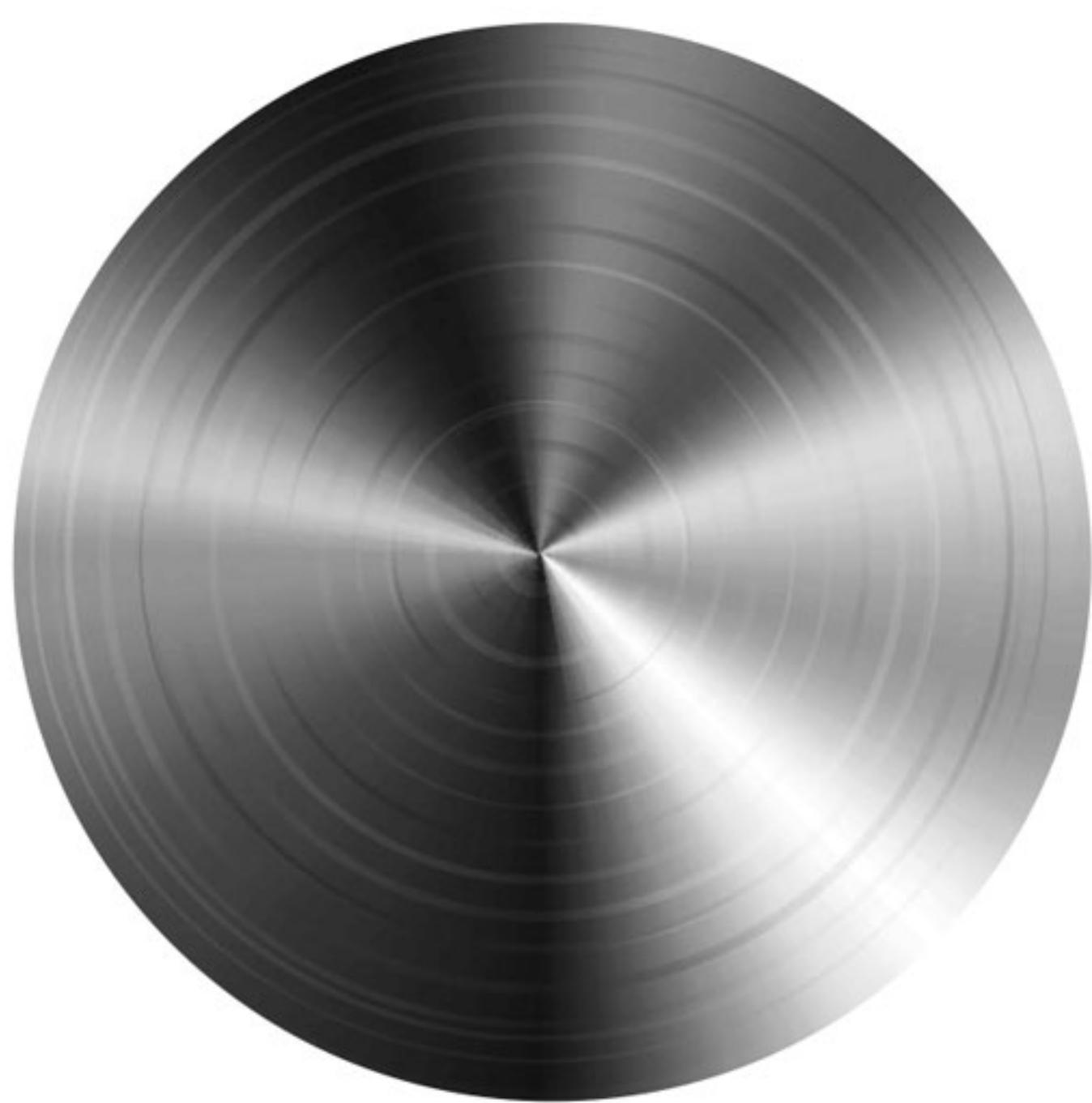
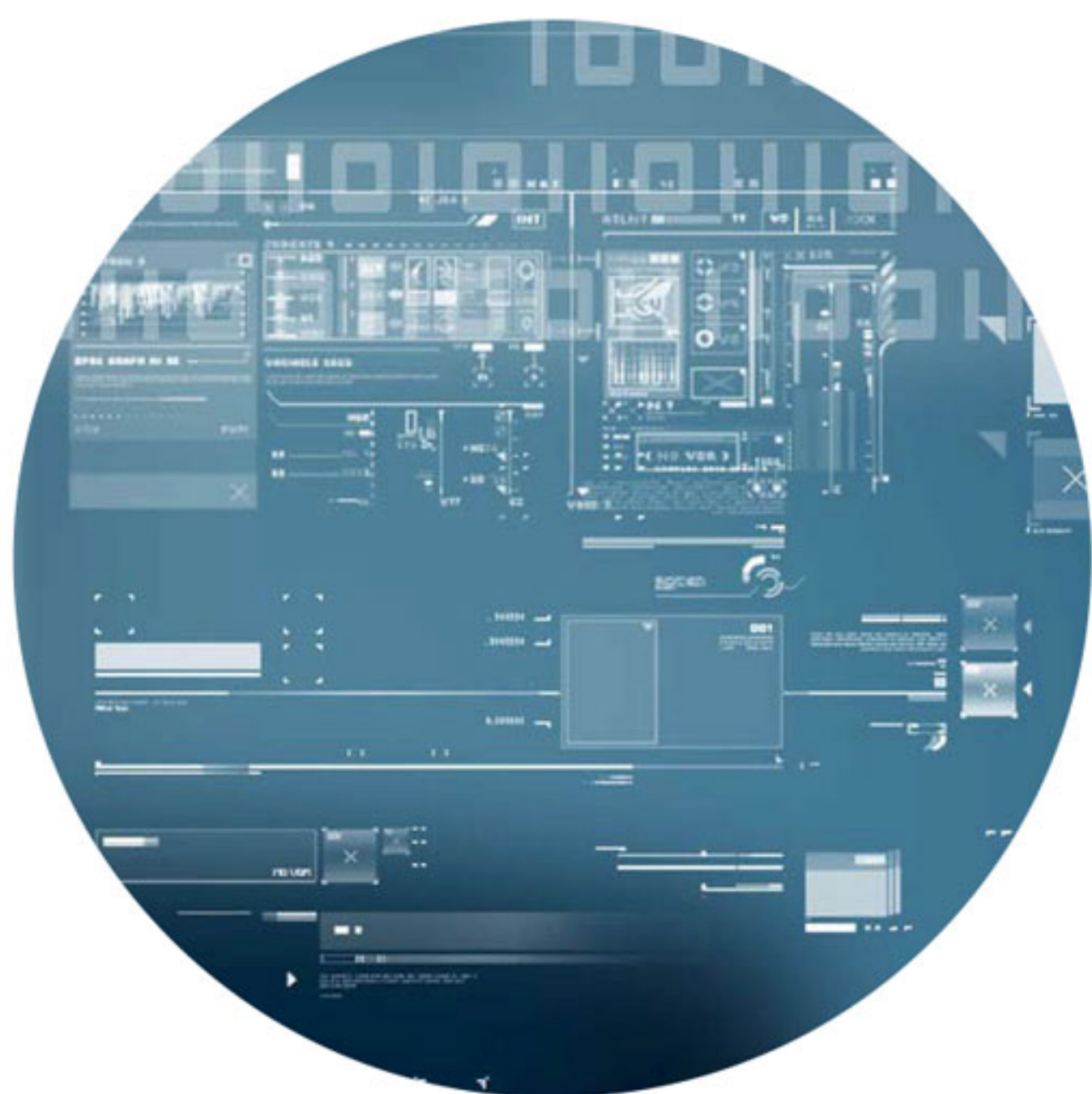
We sometimes make our list of subscribers available to carefully screened organizations whose products and activities may interest you. While many subscribers find this type of information valuable, some prefer not to receive unsolicited mail. Please contact our customer service department at (855) 367-4813 if you do not wish to receive such mailings.

Photographs contained in this magazine are for illustration purposes only.



Contents

APRIL 2016



55 Diabetic Cooking

THE SPRING ISSUE

DEPARTMENTS

6 Editor's Letter

8 News & Notes

16 Quiz

20 Diabetes Q&A

22 Definitions

27 Resources

91 Supermarket Smarts

Popcorn

110 Getting to Know You

Natalie Strand, M.D.

112 Product Spotlight

Livliga

28 Wearables, Implants and Apps, Oh My!

Smart Technology for Diabetes Self-Care

By Nicola Davies, Ph.D.

32 Bronze Diabetes: The "Silent" Diabetes

Little-known condition signals hemochromatosis

By Frieda Wiley, PharmD, CGP, RPh

36 What's New

More Consumer Diabetes Products Using Technology to Get Connected

By Wil Dubois, BS, AAS, PWD, CPT, TPT

44 Operation Diabetes Organization

Small Self-care Steps for Every Season

By Susan Weiner, MS, RDN, CDE, CDN

and Paula Ford-Martin, MA

50 Navigating mHealth Options

How to choose the right app for your diabetes

By Laura Hieronymus, DNP, MEd, RN, MLDE, BC-ADM, CDE, FADE

WEIGHT SELF-MANAGEMENT PAGE 97

18 Take Time to Enjoy Eating

Letting Go of Stress and Worry will Help You Better Taste, Love and Digest Your Food

By David Spero, RN

102 Know Your Facts

Navigating the Nutrition Facts Label for Better Food Choices

By Liz Combs, EdD-C, MS, RD, LD and Laura Hieronymus, DNP, MEd, RN

108 Take 5

Your anytime, anywhere 5-minute exercise break

By Laurel Dierking, M.Ed., NFPT, 200-YTT





DIABETES won't slow you down

Who says diabetes has to get in the way of what's amazing in life? Not us. Walgreens helps you find better ways to live with diabetes.

- Medications and supplies from all major brands
- Expert pharmacy advice
- 100 Balance® Rewards points per prescription*

Learn more at [Walgreens.com/Diabetes](https://www.walgreens.com/diabetes).

Walgreens

at the corner of **happy & healthy**®

*Points on prescriptions and other pharmacy transactions limited to 50,000 per calendar year and cannot be earned in AR, NJ or NY or on prescriptions transferred to a participating store located in AL, MS, OR or PR. Due to state and federal laws, points cannot be earned or redeemed on some items, and points will not be earned in a transaction where store credit or redemption dollars are used. Restrictions apply. See full terms and details at [Walgreens.com/Balance](https://www.walgreens.com/balance).



A flood of new, available technology to promote self-monitoring, fitness and healthy eating has made it easier for people to take proactive steps to good health on their own.

Dear Readers,

THE U.S. CENTERS FOR DISEASE CONTROL (CDC) recently reported the number of new cases of diabetes in the U.S., both Type 1 and Type 2, has begun to drop (see News & Notes, page 8). While the overall incidence of diagnosed diabetes among adults ages 18 to 79 more than doubled from 1980 to 2014 (from 3.3 to 6.9 per 1,000 people), since 2008, the numbers have declined.

The rate of new diabetes cases fell 20% from 2008 to 2014. Historically, there were 493,000 new diabetes cases in 1980; in 2009, there were 1.7 million. But in 2014, the number of new cases dropped to 1.4 million.

The skeptical journalist in me says fewer people who should be tested for diabetes are seeing their doctors, perhaps because of health insurance constraints, skewing the number of new cases lower.

But the real reason for the decline, I believe, is an increase in awareness—via the media, the internet, health-care providers, patient advocates and organizations such as The American Diabetes Association and the American Association of Diabetes Educators. These efforts are driving more Americans not only to proactively get tested, but also to take the steps necessary to prevent development of Type 2 diabetes.

Experts also aren't sure why the decline—some say perhaps the disease has simply hit its natural peak, as do many diseases. But research indicates health education and warnings are having an effect: Americans on average are consuming fewer calories, drinking less sugary soda and exercising more, and obesity rates have stopped rising.

The flood of new, available technology to promote self-monitoring, fitness and healthy eating also has made it easier for people to take proactive steps to good health on their own. In this Technology/New Products issue of *Diabetes Self-Management*, we look at a host of new products to help consumers better manage their diabetes. We also examine the growth of smart technology: wearables, implants and mobile apps to help integrate diabetes care into everyday living. And we provide a guide to choosing the right app for your needs.

And in our *Weight Self-Management* special section, learn how to read and understand the Nutrition Facts Label on the packaged foods you buy and how to truly love food and the experience of eating.

As you get ready to head back outdoors this spring, technology can make it easier to maintain your self-management routine without interfering with your active lifestyle.

Yours truly,



Cheryl A. Rosenfeld
Editor





FreeStyle

Precision Neo

Blood Glucose Monitoring System

Accuracy meets affordability



Get 50 test strips for under \$20*

Available without a prescription.

Quality from a trusted brand.

Find the **FreeStyle Precision Neo**
system at major retailers.

Visit GetNeoOTC.com
to save on a meter



For In Vitro Diagnostic Use. FreeStyle Precision Neo blood glucose test strips are intended to be used with FreeStyle Precision Neo meters only.

* Check for participating locations. Based on retail price. Price does not include tax.

© 2016 Abbott Laboratories. ADC-02364 V 1.0 01/16



HEALTH EDUCATION AND WARNINGS ARE HAVING AN EFFECT, AND PEOPLE HAVE ALTERED THEIR LIFESTYLES.

“From 1990 to 2008, age-adjusted incidence increased sharply; the rates more than doubled from 3.8 to 8.5 per 1,000. From 2008 to 2014, age-adjusted incidence significantly declined from 8.5 to 6.6 per 1,000,” the report said. In other words, the rate of new diabetes cases fell 20% from 2008 to 2014, the first steady drop since the diabetes epidemic began to rage in the U.S. around 1980. In 1980, there were 493,000 new diabetes cases; in 2009, it was 1.7 million—more than three times as many. In 2014, the number of new cases dropped to 1.4 million.

When the decline began in 2008, the statistics weren’t dramatic enough to be meaningful, but when researchers analyzed the 2014 data, they realized something important was happening. According to Edward Gregg, a diabetes researcher at the CDC, “It seems pretty clear that incidence rates have actually started to drop. Initially, it was a little surprising, because I had become so used to seeing increases everywhere we looked.”

Of course, the big question is: Why? Experts aren’t sure; perhaps the disease has simply hit its natural peak as many diseases do. However, there are indications that health education and warnings are having an effect, and people have altered their lifestyles. Researchers say Americans on average are consuming fewer calories and drinking less sugary soda. They also are exercising more, and obesity rates have stopped rising.

However, there were some dark clouds amid the good news. Most of the decline occurred among the nation’s white population, especially among the educated. The rates for less educated whites leveled off but did not drop. Also, although the diabetes rate for blacks and Hispanics has dipped, it is not considered statistically significant. Clearly, diabetes educators still have plenty of work to do. After all, the CDC pointed out, 1.4 million new cases of diabetes still is a disturbingly large number.

Diabetes on the Decline

In what many experts see as truly surprising news, the U.S. Centers for Disease Control (CDC) reported at the end of 2015 that the number of new cases of diabetes in the United States (both Type 1 and Type 2) has begun to drop.

According to the CDC report, while overall between 1980 and 2014 the crude incidence of diagnosed diabetes among adults ages 18 to 79 more than doubled—from 3.3 to 6.9 per 1,000 people—and the age-adjusted incidence nearly doubled from 3.5 to 6.6 per 1,000, the numbers declined between 2008 and 2014.

TAKE CONTROL

WITH **Nutrisystem**[®]



serving suggestion.

LOSE WEIGHT TO MANAGE YOUR DIABETES—

it's easier and tastier than you think with Nutrisystem D!

You get a simple, effective weight loss plan that can help you manage your blood sugar. And with over 145 menu options—including pizza, pasta and even chocolate—you'll do it all while eating your favorite foods!



EAT FREE FOR 3 PROGRAM WEEKS & GET 35% OFF**

with 4-Week Auto-Delivery orders

PLUS FREE
SHIPPING!†

CALL OR CLICK RIGHT

1.877.986.DIET (3438) • nutrisystem.com/dsm216

a national strategic partner of
 **American Diabetes Association.**

**Offer good on new 4 week Nutrisystem D Auto-Delivery orders only. One free week of non-frozen food will be included with each of your first three consecutive 4 week auto-delivery orders. With Auto-Delivery you receive a discount off the Full Retail Value and free shipping (Continental US only). With Auto-Delivery, you are automatically charged and shipped your Nutrisystem plan once every 4 weeks unless you cancel. You can cancel Auto-Delivery at any time by calling 1-800-727-8046. Other restrictions apply. Call or see website for details. The Nutrisystem Uniquely Yours plan is available to Continental U.S. residents only and cannot be shipped to PO Boxes, APO Boxes or military addresses. Cannot be combined with any prior or current discount or offer. Limit one offer per customer.

†If you're not 100% satisfied, call to cancel within 14 days and return remaining non-frozen food to us for a full refund, less shipping. Guarantee good on new 4 week plans, first order only. Limit one Guarantee per customer.

On Nutrisystem you add in fresh grocery items.



Unifine[®] Pentips[®] Plus easier.

Make the switch to the only pen needle with a built-in remover.

Experience why 61% of users preferred Unifine Pentips Plus to their current pen needle, citing ease of use, safety and added convenience as primary benefits*.

- Universal fit with all major brand injection pens
- Covered under most insurance plans
- Made in England for exceptional performance

Ask your doctor or pharmacist to upgrade your pen needle to Unifine Pentips Plus.

R_x **J. Sample, MD**
Generic Hospital
Anywhere, USA

Name: _____ Age: _____
Address: _____ Date: _____

Unifine Pentips Plus
4mm x 32 G, 100 ct.
NDC/HR# 08470-3840-01

☒ Dispense as written
☒ Do not substitute Refills: *X*

J. Sample MD



The Prospect of Painless Injections

Being diagnosed with diabetes is difficult for any child, but along with that diagnosis comes something that's often terrifying—needle injections. Many parents suffer almost as much as their children when they have to stick them with a needle. Wouldn't it be great if someone could develop a painless injection?

That's exactly what researchers at a Canadian company have been working on for nearly a decade. The company, PKA SoftTouch, has a device in the works called the anoDyne microneedle. Last year, the company began a crowdfunding campaign to raise enough money to pay for human trials of the needle, after which PKA

SoftTouch will be able to partner with pharmaceutical companies to develop the device and bring it to market.

The microneedle is about the size of a tube of lipstick. It's preloaded with a single premeasured dose of insulin and can be used only once. The

tiny needle does not go into the muscle but goes into the skin only as far as the gap between the skin layers, only about 1 millimeter (.04 of an inch). This part of the skin has no nerve endings, but it carries lots of circulating fluids, the same fluids that carry insulin into the bloodstream quickly—more quickly, according to PKA SoftTouch, than conventional needles.

After the needle is used, it's locked into place so it can't be used again, which means it can be tossed into any wastebasket.

The company says a patient can use the needle just about anywhere on the body where there is skin, except where veins are close to the surface. PKA SoftTouch also has developed a technology that stabilizes insulin at room temperature, which means the microneedle does not have to be kept refrigerated.

The idea for the anoDyne microneedle came from someone with a strong incentive to develop it—Pankaj Modi, M.D., a physician and inventor who was diagnosed with Type 1 diabetes at age 16. He said he hopes someday the device can be used not only for diabetes injections, but also for such things as vaccines and pain medications.

Weight Loss and Physical Performance

DESPITE WHAT IT SOUNDS LIKE, "weight cycling" has nothing to do with bicycles or weights. And although we might not use the term, we're all familiar with what it means. Weight cycling simply is the repeated loss and regain of body weight. Often it's called "yo-yo dieting," and all too many people who try to lose weight are familiar with it.

Although it can be discouraging to lose weight only to put it back on, at least we can take comfort in knowing that we tried and that the process isn't harmful.

Unfortunately, a new study shows weight cycling does have consequences—it is associated with worsening physical functioning in women and weaker grip strength in men.

Researchers at Wayne State University analyzed data from 450 men and women with Type 2 diabetes between ages 45 and 76. These volunteers had taken part in an earlier study in which they all had

lost weight over one year. The researchers followed them by checking their weight every year for eight years. They then assigned the participants to different categories according to their weight histories: 44% of the group were classified as "regainers"—people who gained 5% or more from the prior year and from year one. And 18% were put into the "losers and maintainers" group—people whose weight changed by less than 5%. Finally, 38% were classified as "cyclers"—those who had a combination of "loser" and "gainer" across the span of the study. In addition to being classified, the study participants also were assessed according to their performance on certain physical measures, such as standing balance tasks, a timed four-minute walk, 20-minute walking speed, 400-meter walking endurance and grip strength. The researchers discovered that women who were cyclers or regainers performed worse

→ Continued on page 19



DIABETES QUIZ

How Much Do You Know about Monitoring Your **BLOOD SUGAR**?

One of the biggest challenges of living with diabetes is the monitoring that goes with it. Some people find it a chore to monitor their blood sugar every single day or several times a day. After all, pricking your finger isn't the most fun thing in the world, especially if you get a bad reading and think you need to collect another blood sample. Take this quiz to see how much you know about monitoring your blood sugar and what new information could be in the works for a healthier, happier you.

1. Which of the following may interfere with or give false blood sugar readings? More than one answer may be correct.

- A. Taking acetaminophen
- B. Improper handwashing or not washing hands
- C. Swabbing finger with alcohol before pricking your finger
- D. Using hand sanitizer before taking blood sample

2. How much fluctuation is there in the readings of a glucometer, even when it's cleaned and calibrated regularly?

- A. 10%
- B. 20%
- C. 30%
- D. 40%
- E. 50%

3. Which of the following situations may result in errors or variation with your glucometer?

- I. Bare spots on the test strip
- II. Altitude
- III. Temperature

- A. I
- B. I & II
- C. III
- D. II & III
- E. I, II & III

4. Which of the following are some needleless methods to check blood sugar currently being explored by researchers? More than one answer may be correct.

- A. Contact lens
- B. Saliva
- C. Ear wax
- D. Tattoos
- E. Pressurized tissue extraction

5. Aside from technique, storage, proper handwashing and regular device cleaning, what are some other factors that may lead to inaccurate blood sugar readings? More than one answer may apply.

- A. Confusion
- B. Anemia
- C. Dehydration
- D. Shock
- E. Osteoarthritis

SEE PAGE 19 FOR **ANSWERS**

Nighttime Blood Pressure and Diabetes

Does it make any difference what time of day you take your medications? The question takes in so much territory that there is no real “yes or no” answer. But sometimes, researchers discover fascinating facts about the importance of dosage times. And when they do, they learn equally fascinating facts about how the body's systems are interconnected.

In a recent study, scientists in Spain discovered a possible link between the time a patient takes blood pressure medication and that person's risk of developing Type 2 diabetes. Most people experience a significant dip in blood pressure when they sleep at night. People with high blood pressure, however, tend to experience what's called “non-dipping”—that is, their blood pressure does not drop significantly at night. For their study, the Spanish researchers analyzed data from over 2,500 adults who did not have diabetes. About 2,000 of them had hypertension; the rest did not. About half of the patients with hypertension were instructed to take all their blood pressure medications in the morning; the rest were told to take at least one blood pressure medication at night and the other medications (if there were any) upon waking up.

The researchers monitored the patients for about six years, during which 190 of them developed Type 2 diabetes. They found the “non-dippers”—those whose blood pressure did not drop significantly during the night—were at a higher risk of diabetes. Those whose blood pressure dropped at night were at a lower risk.

The researchers also conducted a separate study to investigate whether taking the entire dose of medications in the morning or evening made a difference. Half the participants with high blood pressure were directed to take all their blood pressure medications in the morning, and the other half were told to take all their medications before going to bed.

→Continued on page 19



TOENAIL FUNGUS

IS NO DAY AT THE SPA

FIGHT IT WITH JUBLIA

Individual results may vary.

JUBLIA[®]
(efinaconazole)
Topical Solution 10%



For illustrative purposes only. Not actual patients.

JUBLIA is an FDA-approved prescription topical solution used to treat toenail fungus (onychomycosis)

JUBLIA is specifically formulated to reach the site of onychomycosis and fight the fungus that can live beneath the toenail—allowing some patients to have clearer toenails grow back. Don't hide toenail fungus. Fight it with JUBLIA.

Indication

JUBLIA (efinaconazole) Topical Solution, 10% is a prescription medicine used to treat fungal infections of the toenails.

Important Safety Information

- JUBLIA is for use on nails and surrounding skin only. Do not use JUBLIA in your mouth, eyes, or vagina. Use it exactly as instructed by your doctor.
- It is not known whether JUBLIA is effective in children.
- Before you use JUBLIA, tell your doctor about all your medical conditions, including if you are or plan to become pregnant, are breastfeeding, or plan to breastfeed, because it is not known whether JUBLIA can harm an unborn fetus or nursing infant.
- Tell your doctor about all medications you are taking, and whether you have any other nail infections.



Ask your doctor
if JUBLIA is right
for you and visit
JubliaRx.com

- JUBLIA is flammable. Avoid heat and flame while applying JUBLIA to your toenail.
- JUBLIA may cause irritation at the treated site. The most common side effects include: ingrown toenail, redness, itching, swelling, burning or stinging, blisters, and pain. Tell your doctor about any side effects that bother you or do not go away.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

Please see Patient Information for JUBLIA on next page.



®/TMs are trademarks of Valeant Pharmaceuticals International, Inc. or its affiliates. All other product or brand names are trademarks of their respective owners.

© 2016 Valeant Pharmaceuticals North America LLC JUB.0455.USA.15

PATIENT INFORMATION

JUBLIA (joo-blee-uh)

(efinaconazole) Topical Solution, 10%

This Patient Information does not include all the information needed to use JUBLIA safely and effectively. Please see full Prescribing Information.

Important information: JUBLIA is for use on toenails and surrounding skin only. Do not use JUBLIA in your mouth, eyes, or vagina.

What is JUBLIA?

JUBLIA is a prescription medicine used to treat fungal infections of the toenails. It is not known if JUBLIA is safe and effective in children.

What should I tell my healthcare provider before using JUBLIA?

Before you use JUBLIA, tell your healthcare provider about all your medical conditions, including if you:

- are pregnant or plan to become pregnant. It is not known if JUBLIA can harm your unborn baby.
- are breastfeeding or plan to breastfeed. It is not known if JUBLIA passes into your breast milk.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

How should I use JUBLIA?

See the “Instructions for Use” at the end of this Patient Information leaflet for detailed information about the right way to use JUBLIA.

- Use JUBLIA exactly as your healthcare provider tells you to use it. Apply JUBLIA to your affected toenails 1 time each day. Wait for at least 10 minutes after showering, bathing, or washing before applying JUBLIA. JUBLIA is used for 48 weeks.
- It is not known if the use of nail polish or other cosmetic nail products (such as gel nails or acrylic nails) will affect how JUBLIA works.

What should I avoid while using JUBLIA?

- JUBLIA is flammable. Avoid heat and flame while applying JUBLIA to your toenail.

What are the possible side effects of JUBLIA?

JUBLIA may cause irritation at the treated site. The most common side effects include: ingrown toenail, redness, itching, swelling, burning or stinging, blisters, and pain. Tell your healthcare provider if you have any side effects that bother you or that does not go away.

These are not all the possible side effects of JUBLIA.

Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088.

How should I store JUBLIA?

- Store JUBLIA at room temperature, between 68°F to 77°F (20°C to 25°C). Do not freeze JUBLIA.
- Keep the bottle tightly closed and store in an upright position.
- JUBLIA is flammable. Keep away from heat and flame.

Keep JUBLIA and all medicines out of the reach of children.

General information about the safe and effective use of JUBLIA

Medicines are sometimes prescribed for purposes other than those listed in a Patient Information leaflet. You can ask your pharmacist or healthcare provider for information about JUBLIA that is written for health professionals. Do not use JUBLIA for a condition for which it was not prescribed. Do not give JUBLIA to other people, even if they have the same condition you have. It may harm them.

What are the ingredients in JUBLIA?

Active ingredients: efinaconazole

Inactive ingredients: alcohol, anhydrous citric acid, butylated hydroxytoluene, C12-15 alkyl lactate, cyclomethicone, diisopropyl adipate, disodium edetate, and purified water.

Manufactured for: Valeant Pharmaceuticals North America LLC, Bridgewater, NJ 08807 USA

Manufactured by: Kaken Pharmaceutical Co. Ltd, Shizuoka, Japan. Product of Japan

For more information, call 1-800-321-4576.

This Patient Information has been approved by the U.S. Food and Drug Administration.



®/TMs are trademarks of Valeant Pharmaceuticals International, Inc. or its affiliates. Any other product or brand names and logos are the property of their respective owners.

© 2015 Valeant Pharmaceuticals North America, LLC
DM/JUB/14/0187a(1)

Issued: 02/2015

9391902

ANSWERS

1. A & B. Acetaminophen (Tylenol) and acetaminophen-containing drugs such as certain over-the-counter cough and cold medications and prescription pain killers including Zutipro or Zohydro ER can interact with various chemicals used in certain medical devices, causing blood sugar to rise and giving a falsely high reading, according to Eurekalert.org. If you don't calibrate your glucometer regularly, you are more likely to get inaccurate readings from your device. Glucose meters vary, and you usually can find how often you should calibrate yours in the instruction manual. Also, improper handwashing or not cleaning your hands before collecting your blood sample can throw off readings. After all, as technology improves, glucometers are becoming more sensitive and require smaller blood samples for readings. This means the machines are more sensitive to contamination. Another good idea is to only collect blood samples from your fingertips because taking blood samples from any other body part also can alter the accuracy of readings.

2. B. While self-monitoring blood glucose plays an important role in helping to control diabetes and avoid or lessen the severity of undesirable consequences such as hypoglycemia and damage to other organs including eyes and kidneys, it is important to understand that a blood device can vary in accuracy. In fact, the same device may vary by as much as 20% in accuracy, despite regular cleaning. If you find your glucometer is repeatedly giving you errors or readings that you doubt, run a control test. You might also want to ask your pharmacist or diabetes educator to take a closer look at it.

3. E, I, II & III. Many test strips have enzymes designed to react with your blood. When the test strips get too old, the enzymes may lose activity and cause bare spots on the strips. Other factors can cause abnormal readings, too. Lower temperatures may affect the ability to draw blood for testing because blood tends to not circulate as close to the surface of the skin in cooler temperatures as it does in warmer temperatures. Also, you should use only test strips manufactured for your specific glucometer. While it may be tempting to use test strips intended for a different machine—especially if you are changing glucometers and don't want all those extra strips to go to waste—interchanging strips can result in false or inaccurate readings. The FDA warned of this ongoing challenge again in 2015.

4. A, B and D. While needle sticks still remain the standard way to check blood sugar, researchers at various institutions around the globe have been working hard to find some options that take the "ouch" out of the finger pricks. In January 2015, the University of California's San Diego campus announced it had developed a temporary tattoo that uses electrodes and sensors to assess blood glucose levels. Google has been working on a contact lens. A saliva test kit called the iQuickIt Saliva Analyzer was scheduled to undergo clinical trials in 2014, but no updated information was available at press time. While none of these products currently is available in the U.S., don't give up hope; they could be coming to your local pharmacy in a few years.

5. B, C and D. Blood disorders can result in inaccurate readings. For example, people who have anemia may get readings that are falsely high, while a person with polycythemia (high levels of hemoglobin in the blood) may have falsely low readings. Additionally, people who are in shock or dehydrated may have abnormal readings. Health-care providers often can work around these situations if a patient is in a hospital, but it's important that patients who monitor their blood sugar be aware of how these conditions may affect blood sugar readings.

Frieda Wiley, PharmD, CGP, RPh, is a freelance medical writer and consultant pharmacist based in the Piney Woods of East Texas.

→Nighttime Blood Pressure Continued from page 16

The researchers found those who took their medications at bedtime not only lowered their nighttime blood pressure, but also lowered their risk of developing Type 2 diabetes by 57% compared to those who took their medications in the morning. The more the nighttime blood pressure was reduced, the more the risk of diabetes also was reduced.

The reason blood pressure and Type 2 diabetes are connected appears to be hormonal. Certain hormones, such as adrenaline and angiotensin, contribute to the development of both high blood pressure and Type 2 diabetes. Blood pressure medications commonly target angiotensin, so when angiotensin is lowered, so is the risk of both high blood pressure and diabetes.

The results of the two studies certainly are food for thought, although anyone planning to change a medication schedule must first discuss it with his or her doctor. According to Ramón Hermida, Ph.D., lead researcher on the two studies, "lowering asleep blood pressure could indeed be a significant method for reducing the risk of developing diabetes."

→Weight Loss Continued from page 11

on physical performance and had slower 20-minute walking speeds than women who were losers or maintainers. Men who were cyclers showed weaker grip strength than men who were losers or maintainers.

The researchers were unable to definitively explain these differences, but they speculated it might have to do with an increase in fat mass compared to lean mass. Further research, they said, might test this hypothesis. In the meantime, the researchers said by showing that weight loss patterns can affect physical performance, their study emphasizes how important it is for doctors to work closely with patients to help them achieve stable weight loss over time.

Q I have had diabetes for about six years. I want to know why I'm starving and so tired 10 or 15 minutes after I eat. I feel like I'm hungry all the time! Six months ago, this wasn't a problem. I try to eat healthy, but the hunger pangs are miserable. My doctor says my A1c is good and has no explanation for the fatigue and hunger. Can you help me?

A That has to be frustrating for you, but there may be an explanation and a solution. The fatigue you feel soon after eating could be caused by postprandial hyperglycemia, or a "spike" in blood sugar soon after eating. It is common for the blood sugar to rise modestly after meals and then return back toward normal within an hour or two. But if it climbs very high, even if it eventually returns to normal, it can leave you feeling a bit washed out. Checking your blood sugar with a fingerstick 30 to 60 minutes after eating will tell you if this is happening, as will a continuous glucose monitor.

Readings above 180-200 mg/dl after eating can cause the type of symptoms you describe. This can be fixed by choosing slowly-digesting foods such as fresh vegetables, whole fruit, legumes and dairy products. If you take insulin at mealtimes, taking it earlier can help, as can engaging in some light-to-moderate physical activity soon after eating.

Interestingly, the post-meal hunger you're experiencing also can be caused by blood sugar spikes. However, it also could be due to a lack of a hormone called "amylin." This hormone normally is produced along with insulin at mealtimes, but it is produced in insufficient



Our Expert

Gary Scheiner MS, CDE, is owner and clinical director of Integrated Diabetes Services (www.integrateddiabetes.com, 610-642-6055), a private practice specializing in intensive insulin therapy for children and adults. He and his team of Certified Diabetes Educators work with clients throughout the world via phone and internet. Gary has lived with Type 1 diabetes for 30 years and was named Diabetes Educator of the Year in 2014 by the American Association of Diabetes Educators. He has written six books, including *Think Like A Pancreas*, and is a regular contributor to *Diabetes Self-Management*.

**POST-MEAL
HUNGER
COULD BE DUE
TO A LACK OF
THE HORMONE
AMYLIN.**

amounts in many people with diabetes. Amylin helps curb hunger and slows digestion so that you feel fuller after eating. It also blocks the production of glucagon by the pancreas, which helps lower post-meal blood sugars. Several medications—including pramlintide, GLP-1s and DPP-4 inhibitors—can replace or mimic amylin, so ask your doctor if one of these might work for you.

Another tactic you might consider is consuming more fiber in your meals. Fiber not only slows down digestion (which prevents the after-meal blood sugar spikes), but also creates a sense of fullness. A registered dietitian can work with you to build more fiber into your daily meal plan.

Q I am 67 years old and have been a Type 1 diabetic since 1952. I have experienced many advances in diabetes care in the past 60+ years. One of the greatest advances was the Continuous Glucose Monitoring System (CGM). I started using one 10 years ago, and it worked well to warn me of an upcoming high or low glucose. When I turned 62, I dropped my private medical insurance and started using Medicare. Medicare does not pay for the CGM system, and I cannot afford it on my own. What can I do to get Medicare to pay for it? CGM was so helpful for helping me avoid highs and lows.

A You are not alone in this struggle. Many groups are working to force Medicare to begin covering CGM, since its regular use has been shown to improve HbA1c and reduce the incidence and severity of hypoglycemia. This is particularly important for those who have had diabetes for many years and suffer from hypoglycemia unawareness—lack of symptoms and warning signs that low blood sugar is taking place. Unfortunately, getting CMS (the division of the federal government that oversees Medi-

Continued on page 22



WHEN YOU'RE LIVING *with* DIABETES **STEADY** *is* **EXCITING**



Steady Ahead™

Only Glucerna® has CARBSTEADY®, scientifically formulated to help minimize blood sugar spikes.*

Available in the pharmacy or nutrition aisle at your local retailer.
Great offers at glucerna.com

Use under medical supervision as part of a diabetes management plan.

*Has CARBSTEADY® designed to help manage blood sugar response compared to high-glycemic carbohydrates.

©2016 Abbott Laboratories 160015/March 2016 LITHO IN USA



Diabetes

[definitions]

ACCORD STUDY

A large clinical study designed to determine whether intensively lowering blood glucose levels, intensively lowering blood pressure or treating blood lipid levels can reduce the risk of heart attack, stroke or death in patients with Type 2 diabetes. In 2008, the results of the glucose control study raised some eyebrows. More than 10,000 participants were randomly assigned to receive either standard therapy aimed at achieving a hemoglobin A1c (HbA1c) of 7% to 7.9% or intensive therapy designed to lower HbA1c to less than 6%. The intensive therapy arm of the trial was halted early due to excess mortality and no reduction in the rate of heart attack or stroke. Researchers were perplexed. Did this mean that efforts toward intensive control should be abandoned in people with Type 2 diabetes?

Not necessarily. First, intensive blood glucose control has been shown to significantly reduce the risk of diabetic eye, kidney and nerve disease in people with Type 2 diabetes. Furthermore, a later analysis of the ACCORD results did not find that lowering the HbA1c level was what caused the excess mortality. In fact, the unexpectedly high mortality rate in the intensive therapy group occurred in those patients who failed to lower their HbA1c levels below 7%. Current guidelines from the American Diabetes Association recommend people with Type 2 diabetes discuss their blood glucose goals with their physicians, since intensive control may not be the best approach for everyone with Type 2 diabetes.

ATRIAL FIBRILLATION

A type of cardiac arrhythmia (irregular heart beat) that commonly causes poor blood flow throughout the body. The heart has four chambers—two upper chambers called atria and two lower chambers called ventricles. During atrial fibrillation (AF), the atria beat chaotically, producing heart palpitations, shortness of breath and general weakness.

People with diabetes are at increased risk for AF, especially if they have had diabetes for a long time or have poor blood glucose control. By some estimates, people with diabetes are 40% more likely to develop AF than the general population.

Although AF itself usually is not life-threatening, it can lead to serious complications. Blood clots may

form in the heart and travel to other organs, leading to ischemia (obstructed blood flow).

People with AF who don't have symptoms or related heart problems may not need treatment, but persistent AF should be treated to control heart rate and prevent complications. First, doctors may treat any underlying condition, such as a thyroid disorder. Warfarin (Coumadin), dabigatran, heparin or aspirin may be used to prevent blood clots. Doctors may prescribe beta-blockers (such as metoprolol and atenolol), calcium-channel blockers (such as diltiazem and verapamil) or digitalis (Digoxin) to slow the heart rate.

In some cases, doctors try to reset the heart's regular rhythm, a treatment called cardioversion. In electrical cardioversion, paddles or patches placed on the chest deliver an electric shock to reset the heart rhythm. Medications called anti-arrhythmics also are used to restore normal heart activity.

ERECTILE DYSFUNCTION

The inability to achieve or maintain an erection, commonly known as impotence. Heart disease, atherosclerosis, high blood pressure and diabetes all can cause erectile dysfunction (ED). Certain lifestyle factors also may contribute, including smoking, excess weight, inactivity, alcoholism or other substance abuse, anxiety and depression. Anyone with ED should be evaluated by a physician to determine its underlying causes.

Oral medications such as sildenafil (Viagra) and tadalafil (Cialis) may help alleviate ED, but they may not be the best option for men who take nitrate drugs, such as nitroglycerin for angina, or have blood pressure abnormalities or liver or kidney disease. Some drugs such as alprostadil may be injected directly into the penis or inserted as a suppository into the tip of the penis to produce an erection. Testosterone replacement may be beneficial in men who have a documented testosterone deficiency. Vacuum devices, also known as penis pumps, can be placed over the penis to draw blood into it, and then a band is placed around the penis to maintain the erection during intercourse. If the man suffers from leaking or blocked blood vessels, surgical repair of the blood vessels may be needed. If stress, anxiety or depression are contributing to the ED, it may be helpful for the man, and perhaps his partner, to undergo psychological counseling.

Robert S. Dinsmoor, a medical writer and editor based in Massachusetts, is a contributing editor of *Diabetes Self-*

→**DIABETES Q&A** Continued from page 20

care) to change its policy is a long and challenging process.

But you may not have to wait for a change in policy. An endocrinologist in Maryland, Nicholas Argento, has been successful at helping some of his patients obtain Medicare coverage for CGM. Argento advises his clients to simply not take no for an answer. Appealing the decision more than once often will result in coverage, particularly at the third round of appeals, called the Administrative Judge Level. This usually involves a hearing (in person or over the phone) at a scheduled time and gives you a chance to argue your case and have an advocate such as your physician or diabetes educator argue on your behalf. Supporting documentation such as blood sugar records and history of severe hypoglycemia also can help.

Argento has published a set of recommendations and a sample letter you can use to strengthen your case. It can be found at: <https://myglu.org/articles/getting-medicare-to-cover-cgms-what-you-can-do>.

The bottom line is that if you are willing to put the time and energy into fighting CMS, and your health-care team is willing to back you up, you do stand a chance to obtain coverage.

One other note: Many people with Medicare also have secondary coverage with a private health insurance company. In some cases, the secondary coverage will pick up all or part of the cost of the CGM. It's best to let the CGM company's insurance department check on your behalf.



Manage Diabetes Deliciously “The Walden Way”™



Maple Pancakes “The Walden Way”
Switch & Save 150 Carbs

Love the Taste, Save the Carbs with Walden Farms Pancake Syrup!

No Carbs, No Fat, No Calories, No Gluten, No Sugars of Any Kind!

Great Taste, Calorie, Carb & Sugar Free. How does Walden Farms do it?
Rich Natural Flavors...

Prepare your favorite pancakes or waffles with Walden Farms Calorie Free Pancake Syrup made from Natural Maple flavor. Rich natural flavors make all Walden Farms Syrups and Dips taste incredibly delicious including Pure Vanilla, Rich Caramel, Real Chocolate from Premium Natural Cocoa Beans, Fresh Fruit Extract from Strawberries, Blueberries, Raspberries and more.

Great on pancakes, waffles, fresh fruit, ice cream, in smoothies, coffee and milk.

So, use all the Walden Farms you want, it's Calorie, Carb and Sugar Free!



Switch & Save Hundreds of Calories Every Day "The Walden Way"

Visit waldenfarms.com/dsm16 for **FREE** Pancake Syrup with your order

Coffee Creamers • Pancake Syrup • Chocolate Syrup • Caramel Syrup • Fruit Syrups • Chocolate Dip • Caramel Dip • Marshmallow Dip • Fruit Spreads • Peanut Spread • Chocolate Peanut Spread
Cinnamon Raisin Peanut Spread • Cranberry Sauce • Pasta Sauces • Mayo • Flavored Mayo's • Salad Dressings • Coleslaw Dressing • BBQ Sauces • Ketchup • Single Serve Packets

100% GUARANTEED
© 2016 Walden Farms, Inc.

800.229.1706

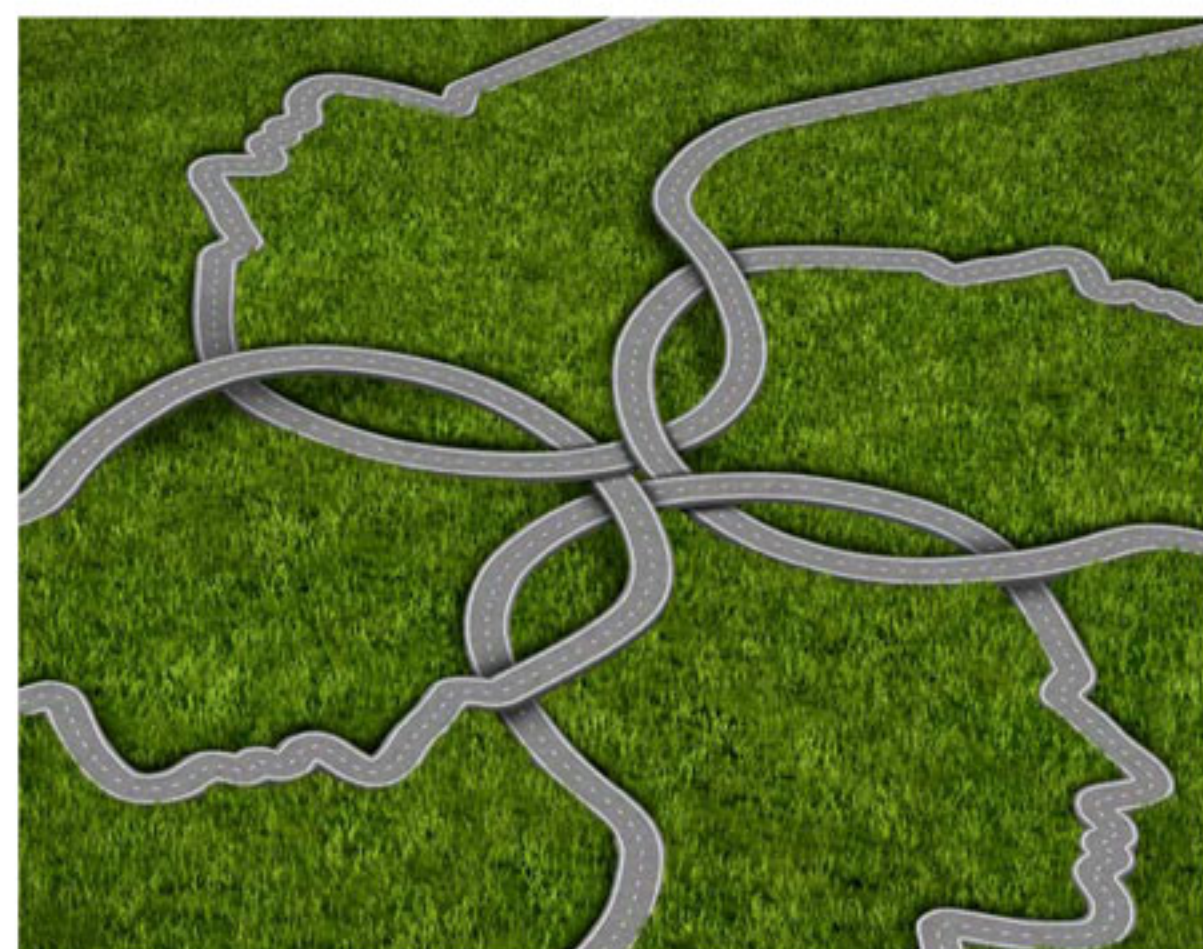
See What's New at WALDENFARMS.COM



Diabetes Knowledge Portal

MEDICAL BREAKTHROUGHS rarely come from a sole researcher toiling in a lonely lab. The name of the game is collaboration—even global collaboration. That’s why it came as big news when the U.S. National Institutes of Health (NIH) announced late last year it was opening a new online library, or what it calls a “knowledge portal,” to allow open-access searching of clinical information and genetic data on Type 2 diabetes.

The knowledge portal includes information about diabetes from worldwide research networks that has taken years to accumulate. The portal is a product of the Accelerating Medicines Partnership (AMP), a public-private partnership involving the NIH, the U.S. Food and Drug Administration (FDA), several biopharmaceutical companies and many non-profit organizations. Its goals are to develop new methods of testing for and treating diseases and to reduce the time and cost involved in the process. In addition to Type 2 diabetes, AMP also has projects on Alzheimer’s disease, rheumatoid aThe knowledge portal will include information from over 100,000 human genetic samples obtained from various associations and groups funded by the NIH. The genetic



and clinical information, while being kept confidential, will be searchable in many ways. Investigators can search by genes, genetic variants and genetic regions, and the data can be cross-referenced with links to insulin and glu-

cose information. The use of human data is crucial, because research on diabetes drugs commonly is conducted on animal models that are not necessarily applicable to humans.

The portal will be open to the public, but only qualified researchers will be given access to the detailed, individualized data. It is hoped that by being able to comb through mountains of human data, researchers will be able to identify the most promising methods of treating diabetes and learn how such factors as ethnicity, race and geography play a role in that treatment.

Perhaps the most fascinating aspect of this development is that research with a worldwide scope eventually will filter down to the patient in the most individual way. According to Philip Smith, Ph.D., of the NIH, “The knowledge portal will allow us to translate differences in an individual’s genome into an understanding of how those differences affect a person’s risk of developing Type 2 diabetes.”

Joseph Gustaitis is a freelance writer and editor based in the Chicago area.

DIABETES RESOURCES

What’s in Your Genes?

Ever wonder how you developed diabetes or whether you will pass it on to your children?

Several genetic factors have been identified and linked to diabetes, but no genes cause diabetes on their own. They interact with environmental factors such as toxins and foods that increase the risk of developing diabetes.

Who’s at risk? If your parent has Type 1 diabetes, your chance of developing the disease is 10 to 20 times greater than that of the general population. For Type 2 diabetes, the lifetime risk of developing the condition is more than 40% in children with one parent who has Type 2 diabetes. That risk jumps to 70% if both parents have diabetes.

While several genetic and environmental factors are being further researched, it’s safe to say that your family’s genetic makeup still plays an important role in your health. Even though you cannot change the genes you inherit or what diseases run in your family, knowing your family history can benefit your health and that of your loved ones.

Tracing your Family’s Health

Start by recording your health conditions and those of your parents and siblings. You might think you already know a lot about your family’s conditions, but ask specific questions, not only about diabetes, but also about heart disease, obesity and other autoimmune diseases. Then go back another generation and talk to your grandparents, aunts and uncles about their health experiences.

Find out whether a family tree already exists, and ask for old medical records that might provide further information. All the family facts can be gathered together by drawing a tree or recording the information through online resources. Check out these online tools to help document and trace your family history.

- American Heart Association—Heart of diabetes family tree: www.heart.org
- Surgeon General—My family health portrait: <https://familyhistory.hhs.gov>
- March of Dimes—Family health history form: <http://www.marchofdimes.org/materials/family-health-history-form.pdf>

Genetic Testing

Tests are available for some genetic factors associated with diabetes and may provide early warning about your risk of developing the condition. In most cases, health insurance plans will cover the cost of genetic testing, but only when it’s recommended by a doctor.

Many in the medical community still question the value of genetic testing as a predictive measure. Until additional research uncovers more about the underlying genetic causes of diabetes, doctors will continue to track other known factors of its cause, namely obesity, high blood pressure, elevated cholesterol and triglyceride levels and family history of diabetes.

Paul Wynn, a writer based in Garrison, N.Y., has covered health-care trends for the past 20 years.



WEARABLES, IMPLANTS AND APPS, Oh My! SMART TECHNOLOGY FOR DIABETES SELF-CARE

By Nicola Davies, Ph.D.

If you have diabetes, you must consistently monitor your diet, lifestyle and glucose levels, and keeping track of everything can be both inconvenient and difficult. Matters can become even more complicated if you have other health conditions with which to contend. Fortunately, technology can help.

Technological Innovations

Strides have been made to ensure technology keeps pace with assisting people in self-managing their diabetes. By incorporating a personalized approach, technology has become a useful tool; in particular, mobile and internet-ready smartphones have been found to be the most effective for integrating diabetes care into day-to-day living.

A 2009 study conducted by Julie Polisena and her team at the Canadian Agency for Drugs and Technologies in Health found storing or sharing self-monitored blood glucose using home telehealth tools such as PDAs or fax machines, supported with physician feedback, showed improved glycemic levels and reduced hospitalizations.

Technology now has evolved beyond telehealth. Smart technology exists as wearables, implants and mobile applications to track glucose levels, share data, access relevant information, communicate with both health-care providers and others with diabetes and, ultimately, guide you in making better decisions.

Wearable Technology

Wearable technology comprises gadgets that can be worn and are equipped with sensors and wireless connectivity to assist with monitoring blood sugar levels, personalizing treatment, connecting with health-care providers and even delivering medication into the body. It's a huge departure from the traditional finger pricking method of glucose monitoring.

Some wearables on the horizon for diabetes include smart skin patches, contact lenses and footwear.

Skin Patches: These are small patches enclosing sensors that measure blood glucose in sweat and automatically release a dose of insulin to correct high blood glucose. The patch can be attached to your skin so that in the event of low blood glucose levels, it will send a message alert to your smartphone reminding you to eat. Some patch systems already exist but need a wire to transmit data. Several companies are taking patches a step further by sending information wirelessly.

Pharmaceutical company Abbott has created the **FreeStyle Libre Flash Glucose Monitoring System**. A patch is placed at the back of the arm. It's made with a small, round sensor with microfilaments that measure glucose levels in beneath-the-skin fluids per minute. An external device that reads through clothing scans the sensor. This product already is being distributed in certain parts of

Europe and is awaiting approval from the U.S. Food and Drug Administration (FDA).

Other companies also are developing patches. Eccrine Systems, Inc., which develops advanced sweat sensors for medicine, plans to release a disposable patch that measures glucose levels in sweat and sends data wirelessly. This device is anticipated to hit the market this year. Google also is working with glucose-monitoring systems developer DexCom to create a bandage-sized, disposable sensor that can transmit data to the Cloud in real time. It's estimated to be available in the next five years.

Besides monitoring, patches also can be used for drug delivery. **OmniPod**, for example, is a small, waterproof patch that active adults and children can wear for three days straight. Before placing it anywhere on the body, insulin is injected into it. A handheld device then can control it to monitor and administer insulin if needed.

Contact Lenses: Smart contact lenses that could monitor blood glucose levels through human tears are being explored by Brian Otis and Babak Parviz for Google[x]. Pharmaceutical company Novartis has agreed to license and commercialize them once available. They also are looking to make lenses that could compensate for poor eyesight, which is a common complication among people with diabetes. There is yet to be confirmation of when this product could reach the market, but in 2015, Google was granted the patent for a contact lens with an embedded chip to monitor glucose levels in tears.

Socks and Shoes: Developments in technology aren't appearing only in the area of self-monitoring. Technological developments also are prevalent in preventing common diabetes complications such as diabetic neuropathy, which can result in limb amputation. Currently, scientists are prototyping socks and shoes with embedded thermal and pressure sensors that can point out specific areas of the feet that have insufficient blood supply. Once this footwear product reaches the market, ideally, a supporting smartphone application would alert the wearer if one area of the foot is not getting blood supply. A nurse or doctor also can use the device to routinely inspect small cuts or soft tissue damage, in which an infection can easily develop. Such technology would greatly minimize the risk of amputations.

Researchers at the Fraunhofer Institute in Germany are testing a sock equipped with 40 tiny sensors spread across the sole, heel, top of the foot and ankle to get a three-

dimensional reading. When a person stands on one foot too long and pressure starts to build, the sensors signal a wireless device that communicates with a smartphone, which then alerts the person to shift his or her weight to the other foot. Researchers still are working on how to make the sock washable.

The University of Arizona Department of Surgery's Southern Arizona Limb Salvage Alliance (SALSA) is researching and developing **Smart Sox**, a stocking made with fiber optics and sensors that monitor pressure, temperature and joint angles to help avoid the development of foot ulcers. It could be five years before Smart Sox are available for home use.

Implanted Technology

Traditionally, people with diabetes use injections or pumps to get insulin, both of which can be uncomfortable and inconvenient. However, companies now are developing implants such as a bio-artificial pancreas and skin implants that automate drug delivery.

A bio-artificial pancreas typically houses stem cells that produce insulin. Viacyte is producing **VC-01**, which houses the cells in a special capsule that is implanted into the patient's body to function very much like a pancreas. The product currently is in clinical trials and already has been successfully implanted into four humans. The company is expecting to make more trial human implantations by the end of 2016 and to bring it to market in about five years.

Joan Taylor, professor at the De Montfort University in Leicester, U.K., has developed a wristwatch-sized artificial pancreas called **InSmart**, which is made of a gel barrier capable of matching the insulin amount it releases based on increases in blood sugar levels. The insulin in the barrier must be

Helpful Apps

>**DIABETIK** is a diabetes journal to track manually entered food, medications, blood glucose and activities. It sends reminders based on time and date or when you enter or leave a certain location. Available for free only at iTunes for Apple.

>**DIABETES PA** tracks blood glucose in comparison to mood, insulin, medication, HbA1c, blood pressure, carbs, weight and more. Available for free at Google Play for Android and soon in iTunes for Apple.

>**MYSUGR JUNIOR** is a "gamified" logbook for insulin doses, blood sugar, diet and activities that's completely synced with the caregiver's device for remote monitoring of children. Available for free at Google Play for Android and iTunes for Apple.

>**BG MONITOR DIABETES** is a food log app that records food portions through photos and comes with a bolus insulin calculator. Available for \$4.99 at Google Play for Android.

>**FOODUCATE** is a database of food types and recipes in an easy-

to-read format that comes with barcode reading capability for grocery items. Available for free on Google Play for Android and iTunes for Apple.

>**MYNETDIARY DIABETES TRACKER** provides comprehensive tracking of blood glucose, insulin and medication and comes with a Food Check feature that compares foods in grocery stores and restaurants. Available for \$9.99 at Google Play for Android and iTunes for Apple.

>**GLOOKO** can download data from over 30 glucose meters and sync information from other monitoring apps and with physicians' devices to guide consultations. Available for free on Google Play for Android and iTunes for Apple, but a Glooko subscription is required.

>**BLUE LOOP** documents health updates and sends these in real time via text or email to a physician, school nurse or caregiver who has a My Care Connect account. Available for free in Google Play for Android and iTunes for Apple.



replenished every two weeks through an external port. Human testing is set for this year, to make it available in the next decade.

Insulin delivery can be less intrusive in the form of skin implants. Intarcia has developed **ITCA 650**, a matchstick-sized implant placed under the skin to continually deliver the Type 2 drug exenatide. This substance traditionally is injected twice daily or once weekly, but the ITCA 650 is implanted only once or twice a year. Currently, it is in phase III clinical trials and is scheduled for FDA filing later this year.

Smart Apps

While many wearables and implanted technology still are in the development or approval phases, many smartphone applications already are available. Apps can educate, assist with decision-making, communicate with health-care providers and promote adherence to lifestyle and medication regimens.

Some glucose meters now are smaller, lighter and capable of giving more accurate readings. Some are so small they can be plugged into the headphone jack of a smartphone. Apps that accompany glucose meters include sensors that count

the number of steps taken in a day, the number of calories consumed in a meal and the resulting glucose levels, and whether a dose of medication is recommended. The **One Touch Verio® Meter**, for example, can test a drop of blood and tell whether sugar levels are within range, as well as provide a summary of overall health performance.

Thousands of apps are being developed without the use of a blood strip to help people with diabetes make wise meal and activity choices and keep blood sugar levels within safe limits. The app **Diabetik**, for example, is designed for quick and interactive data entry to help those with either Type 1 or Type 2 diabetes monitor their diet, blood glucose levels and medication. The user can set medication or activity reminders according to time or location.

Other apps focus on keeping food diaries and tracking calories. **Fooducate** has an extensive database of food information. Through bar code scanning, you can search a food item's nutritional value and wait for the app to suggest healthier alternatives. The app also creates a community in which you can share your progress and healthy recipes.

Some apps are designed specifically for children, enabling parents to monitor their children's blood sugar levels throughout the day. The app **mySugr Junior** has a playful interface that motivates and rewards children to learn about diabetes and religiously monitor their glucose and activity levels. All data are synced with the caregiver's smartphone.

Other apps focus on connecting patients with their doctors. For example, **Glooko** is capable of aggregating your biometric data with information gathered through syncing with other glucose monitoring and fitness apps. It allows physicians to easily download patient data through the **Glooko**

Kiosk software, which provides doctors with vital information required during consultations.

The Future of Smart Self-Management

It could be years before some wearables and implants currently in development become available for consumer use. Concerns also have been raised about their affordability and the fear that patients will be entirely reliant on technology to manage their condition. However, many free diabetes-related apps succeed in empowering patients to become actively involved with their physicians, treatment regimens and lifestyle changes.

Smart technology remains a promising area of innovation that can dramatically improve the lives of people with diabetes. By reducing the need for constant finger pricking or insulin injections, technology can make glucose monitoring, drug delivery and health decision-making more efficient. This gives patients and caregivers more time to dedicate to other aspects of their lives, such as relationships and careers. Smart technology

also promotes mindfulness in making daily life decisions, the discipline for self-management and self-care and the formation of health habits. Not only can this help prevent or reduce the progression of diabetes and its complications, but it also can help reduce the costs of diabetes treatment and management. ■

Nicola Davies is a health psychologist, counselor and freelance writer who provides one-to-one self-management consultancy to people living with chronic conditions. You can follow her on Twitter (@healthpsychuk) or sign up for her free blog at <http://healthpsychologyconsultancy.wordpress.com>.

Many free diabetes-related apps succeed in empowering patients to become actively involved with their physicians, treatment regimens and lifestyle changes.

Frankincense & Myrrh® NEUROPATHY Pain Relief in 15 minutes or less!



Relieve your neuropathy pain safely, effectively and fast! Our soothing, all-natural formula gives temporary relief when you rub it on – guaranteed.

Relieving your neuropathy pain, numbness, weakness and tingling has never been more simple. Try it to stand, walk and sleep easier right away.

MFR. COUPON / EXP. 12-31-2016



**SAVE
\$3.00**

DSM3/16

**Frankincense & Myrrh
Neuropathy**



Retailer: Wise Consumer Products Co. will reimburse you for the face value of this coupon plus \$0.08 handling, provided you and the consumer have complied with the terms of this offer. Invoices proving purchase of sufficient stock to cover presented coupons must be shown upon request. Any other application may constitute fraud. Coupon void where prohibited, taxed or restricted. Consumer must pay any sales tax. Cash value 1/100¢. Reproduction of this coupon is expressly prohibited. Mail to: Dept. WiseCPC, PO Box 42400, Blue Ash, OH 45242.

Walgreens

www.frankincensemynrh.com

1 (877) 917-9674

© Wise Consumer Products Co. 2016

Bronze Diabetes: The “Silent” Diabetes

Little-known
condition signals
hemochromatosis

BY FRIEDA WILEY, PHARMD, CGP, RPH

ABOUT ONE out of every 200 to 300 people in the U.S. has bronze diabetes, according to the American Diabetes Association. Yet, most people probably have never heard of this condition.

Caused by an abnormality in which the body is unable to eliminate excess iron properly, bronze diabetes develops when excess iron collects on the pancreas. Iron deposits interfere not only with pancreatic function, but also with the normal activities of any other organs or tissues on which the metal accumulates.

Bronze diabetes gets its name from the bronze hue of the skin that results from the accumulation of iron. However, you may be surprised to learn that this form of diabetes actually is a sign of an underlying liver disease known as hemochromatosis—a rare autoimmune disease in which the body stores excess iron in organs including the liver, heart, pancreas, skin, sexual organs and joint tissues.

Even more concerning, some people with hemochromatosis may be completely unaware that they have it because they have no symptoms suggesting anything is wrong. However, there is a triad of three signs that tends to affect people with the condition: irreversible liver damage (cirrhosis), diabetes mellitus and a bronze discoloration of the skin, according to the Centers for Disease Control and Prevention (CDC). Once the symptoms develop, 90% of patients with active symptoms of hemochromatosis have the bronze discoloration of the skin by the time they are diagnosed with the condition.

Causes and Risks

A report from the CDC suggests as many as 75% of patients with hemochromatosis develop diabetes. Also, race and ethnicity appear to play a major role in determining susceptibility: The condition tends to be much more common in Caucasians of Northern European ancestry. In fact, it is thought to occur in five out of every 1,000 people of European heritage and is the most frequently diagnosed genetic condition among Caucasians. Blacks, Latinos, Asian Americans and Native Americans all carry a much lower risk of developing hemochromatosis.

Hemochromatosis falls into two categories: primary and secondary. Primary, or genetic, hemochromatosis is caused by genetic mutations, while people develop secondary, or “acquired,” hemochromatosis from other illnesses or circumstances. Research indicates that disease development most commonly is the result of faulty genes.

Specifically, a mutation in a gene known as HFE is responsible for causing primary hemochromatosis. To date, a mutation called C282Y remains the most frequently occurring mutation known to cause the disorder—especially in people of European heritage and/or who are male. According to the National Institutes of Health (NIH), the C282Y gene is much more frequently found in men (24% to 43%), whereas only 1% to 14% of females carry this gene. The C282Y mutation, along with an H63D genetic abnormality, account for the majority of mutations associated with hereditary hemochromatosis. Interestingly, while people who inherit a copy of a mutant hemochromatosis-causing gene from both parents may be at an increased risk for developing

Shutterstock/vasabii

the condition, many people with two copies of the faulty gene do not develop hemochromatosis. Still, if you carry only one copy of the defective gene, there's a chance you may pass the gene to your children. When both parents are carriers of the gene, the chances any of their children will develop the condition are one in four.

Secondary, or acquired, hemochromatosis develops when a person has a disease or condition that somehow makes it more difficult for the body to eliminate excess iron or causes the body to store iron. Certain types of anemias such as β -thalassemia or sideroblastic anemia, along with blood disorders including atransferrinemia and aceruloplasminemia, all can increase levels of iron in the body. Chronic liver diseases that often result in liver damage such as hepatitis C, alcoholic liver disease and nonalcoholic, nonfatty liver disease (nonalcoholic steatohepatitis) also make it more difficult for the body to regulate concentrations of iron properly. Other risk factors include receiving long-term blood transfusions, taking iron pills with or without vitamin C and long-term dialysis treatment.

Age also appears to play a role, as the condition is rare in children, young adults and premenopausal women under age 50. Men between ages 40 and 60 are more likely to be diagnosed.

Signs and Symptoms

In the early stages of hemochromatosis, the signs and symptoms may be nonspecific—that is, they mimic symptoms commonly experienced in a variety of illnesses, including joint pain, fatigue, lethargy, weight loss and abdominal pain. As iron deposits accumulate in the body, some patients may develop arthritis. Others may notice abnormalities linked to their sexual organs and sexual function, such as decreased sex drive, impotence and loss of periods and/or early menopause. Iron also may collect on the thyroid gland and reduce its ability to function properly in about 10% of people with hemochromatosis. According to CDC, these people may develop an underactive thyroid.

The liver normally is the first organ in which iron accumulates. Signs of iron deposits on the liver may include your doctor finding an enlarged liver or spleen during examination or even the appearance of female-looking breasts in men (gynecomastia). In later stages of the disease, iron accumulation begins to affect the heart and pancreas, causing heart disease and diabetes.

The majority of people with hemochromatosis have high levels of iron in their blood. There also are special proteins in your blood that help bind iron—such as transferrin and ferritin—and their concentrations may rise to higher than normal levels in the bloodstream, according to the NIH.

Easy to Treat

The good news is that, once diagnosed, hemochromatosis is fairly simple to treat. Even better, the diabetes it causes can be reversed once the iron levels in the body are brought under—and kept under—control. According to CDC, the standard and most common way to treat hemochromatosis is

through phlebotomy, a procedure in which blood is removed from the body through a vein. The treatment is recommended regardless of whether or not you have active symptoms or signs of hemochromatosis, and it is generally considered safe. Multiple treatment sessions, which tend to be more frequent in the beginning, are required. As iron levels begin to fall, some patients may require phlebotomy treatment less often, such as every one to three months, while others may not need any treatment once their bodies no longer accumulate iron at dangerous levels.

Another treatment called erythrocytapheresis recently has shown promise. This procedure, which involves separating red blood cells from whole blood, offers the advantage of removing the iron from the blood more quickly than phlebotomy, reportedly up to three times more blood cells per minute, according to the NIH. A 2015 study compared both the cost and effectiveness of the two procedures, finding erythrocytapheresis removed iron from the blood more efficiently and required fewer treatments than phlebotomy. However, the study did not show erythrocytapheresis to be less expensive than phlebotomy procedures.

What You Should Tell Your Doctor

There are two major challenges when it comes to the diagnosis and treatment of hemochromatosis. The first is that many people who have hemochromatosis may not show any signs or symptoms until the condition has progressed into later stages and has more likely caused damage to the liver and other organs. The second is that the disease can be difficult to diagnose because its traits tend to mimic the signs and symptoms of other, more common diseases. And when it comes to diagnosing hereditary hemochromatosis, genetic testing still remains quite expensive.

All these challenges are strong reminders of how important it is to play an active role in your health. This includes not only knowing your own personal medical history, but also familiarizing yourself with your family medical history. Also, if a close family member has been diagnosed with hemochromatosis, tell your doctor. If you, a parent or a sibling has been diagnosed with the condition, your doctor probably will encourage you to have all your close family members tested.

You also may want to ask your doctor about hemochromatosis if you have a blood disorder, have been receiving dialysis treatment for a long period of time or have any of the risk factors described above. It's always better to be safe than sorry, and it never hurts to start the discussion.

While diagnosis and treatment of hemochromatosis—and bronze diabetes—virtually is impossible to handle without the involvement of your doctor and/or other supporting health-care professionals, you should feel empowered that as the patient, you can become more involved in your own care. By starting the dialogue with your doctor, you are taking the first step in improving your quality of life. ■

Frieda Wiley, PharmD, CGP, RPh, is a freelance medical writer and consultant pharmacist based in the Piney Woods of East Texas.

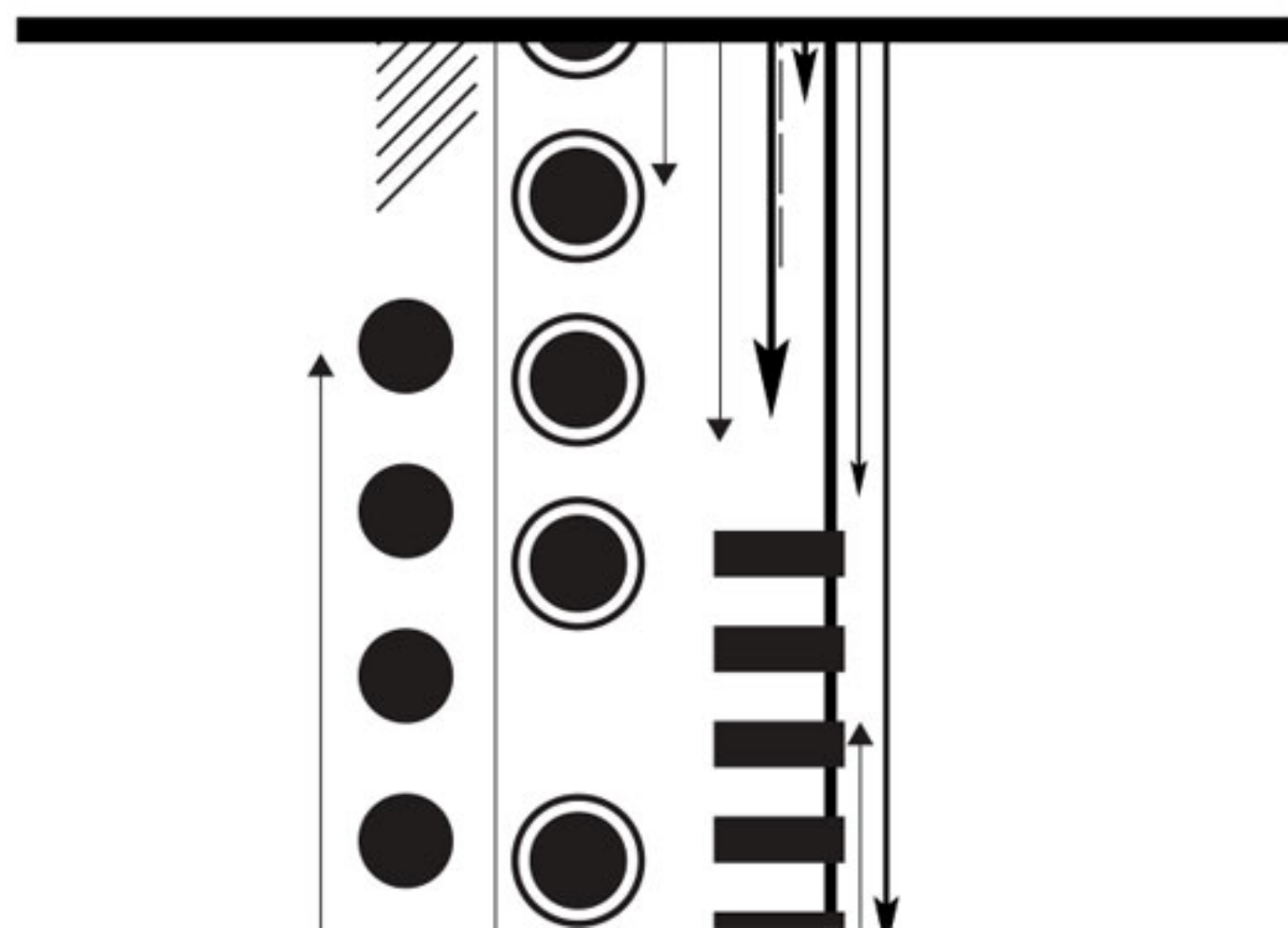
What's NEW

More Consumer Diabetes Products Using Technology to Get — and Stay — Connected

By Wil Dubois,
BS, AAS, PWD, CPT, TPT



Over the past quarter century, we've seen an explosion in the technology we use to treat diabetes: meters for home testing blood glucose, insulin pens, pumps, continuous glucose monitors, software, apps and more. Some years have given us game-changers, while other years have given us the same old gear—in a new color. This year, we have new devices that talk to one another and to consumer electronics; new ways to share our health status with our loved ones; and new options for delivering insulin, treating diabetes-related pain and viewing and analyzing our data. Here's our lineup of some of the best new diabetes products, tools and gadgets that have hit the market in the last year.



► NEW CONNECTIVITY

While we live the non-diabetes part of our lives in an increasingly connected world, up until recently, it was rare for diabetes devices to communicate with one another, much less with the non-medical devices that fill our ecosystems. Instead, our medical technology was isolated in proprietary silos.

Increased connectivity has long been the rallying cry of the Type 1 online community, a group described by Food and Drug Administration (FDA) device approval chief Stayce Beck as “large, well organized, thoughtful and vocal.” The device makers apparently heard the noise, too, and have responded: 2015 may go down in diabetes history as the Year of Connectivity.

At the forefront of connecting its technology to both other medical devices and consumer gear is continuous glucose monitor (CGM) maker Dexcom. This California technology company has been innovating at lightning speed over the last few years, and this past year, it released the next-generation version of its core product, the G4 sensor system.

For background, in 2014, Dexcom rolled out a “Share” charging cradle that transmitted glucose data to the cloud when the CGM receiver was in the cradle, a device quickly adopted by parents to keep tabs on nighttime blood sugars of their children with Type 1. It did not, however, provide a solution to daytime remote blood sugar monitoring. But in 2015, Dexcom released a Bluetooth-enabled version of the G4 receiver called [Dexcom G4 with Share](#). The new Share system sends sensor glucose readings and trends to Apple iPhones in real time, which then can be uploaded to the cloud to be shared with other phones or to an Apple Watch.

Meanwhile, right on the heels of this innovation, Dexcom received FDA approval for, and quickly rolled out, a whole new sensor system called the [Dexcom G5](#). The G5's transmitter itself is Bluetooth enabled, allowing users to bypass a receiver box altogether because the sensor data are beamed straight to an iPhone. Opinions are mixed, however, because the new transmitter is larger than its predecessor and much shorter lived. G5 transmitters have a three-month life and are designed to shut down after that time (G4 transmitters have an official



HELPS MANAGE YOUR DIABETES



Enterex® Diabetic is a delicious & healthy shake that can be used as part of your nutritional plan to help control your blood sugar levels or as part of your weight loss program.

Enterex® Diabetic is sweet yet contains NO ADDED SUGAR.

**Enterex®
Diabetic**



MANUFACTURER'S COUPON EXPIRATION 12/31/16

Save \$1.00 instantly when you buy one six-pack of Enterex® Diabetic

Consumer and Retailer: LIMIT ONE (1) COUPON PER PURCHASE OF SPECIFIED PRODUCT AND QUANTITY STATED. NOT TO BE COMBINED WITH ANY OTHER COUPON(S). Void if expired, reproduced, altered, copied, sold, purchased, transferred, or exchanged to any person, firm, or group prior to store redemption, or where prohibited or restricted by law. Any other use constitutes fraud. Consumer: You pay any sales tax. Retailer: Victus, Inc. will reimburse you for the face value of this coupon plus 8¢ handling if submitted in accordance with Victus, Inc. Coupon Redemption Policy (available upon request). Mail coupons to: Inmar Dept #12197, Victus, Inc., 1 Fawcett Drive, Del Rio, TX 78840. Cash value 1/100¢. No cash back if coupon value exceeds selling price. Valid only in the USA.

INSTANTLY SAVE \$1.00

Save \$1.00 instantly when you buy one six-pack of Enterex® Diabetic

0612197-100003

5 12197 00076 8

www.enterexdiabetic.com

meijer



Winn-Dixie



Walmart

AVAILABLE AT

What's NEW

injection of Lantus still required more than one injection of the new U-300 product, making a switch to the higher concentration somewhat pointless.

Novo Nordisk didn't miss this boat, however, when it released its U-200 version of the [Tresiba FlexTouch](#) basal insulin pen at the end of 2015. The new pen allows users to dial up to 160 units in a single injection. Like Toujeo, the unit is standardized for 1:1 conversion. (Note: The Tresiba pen also comes in a U-100 version with a maximum injection size of 80 units.) The new Tresiba pen is part of the FlexTouch family, first released in the U.S. in 2014 with Levemir, and is the only pen that features no push-button extension. Push-button extension becomes a real problem with large doses from most pens, requiring two-handed operation. Showing unusual humor, Novo's advertisements for the new pens featured the tag line, "Because we can't re-design thumbs, we designed FlexTouch."

Adding to the pen pack, Eli Lilly released a new version



of its [KwikPen](#) with the U-200 rapid-acting insulin Humalog 200. Like the other concentrated insulins, the pen is designed for 1:1 conversion of dosing to avoid confusion. Also from Lilly, the once-weekly GLP-1 medication Trulicity, released in late 2014, started reaching U.S. consumers in 2015. The medicine is packaged in the truly innovative [Trulicity Pen](#) that delivers the medication in three simple steps.

Of course, injecting isn't the only way to get insulin anymore. New to the market is Sanofi/MannKind's inhaled insulin [Afrezza](#), with its tiny pocket-sized inhaler. The Afrezza inhaler is a triumph of modern



miniaturization.

There also are three new insulin pumps, two of which are combo devices (see below). Tandem Diabetes launched the [Tandem t:flex](#), a pump aimed primarily at people with Type 2 who require greater volumes of insulin. The touch-screen t:Flex features a 480-unit capacity, making it the largest volume pump on the market.



► NEW COMBO DEVICES

[Dexcom G4](#) technology was center stage in 2015 in two new insulin pumps that integrate with the sensor system. J&J Animas started shipping the long-delayed [Vibe](#) pump at the



end of 2014, but it didn't reach most consumers until 2015. The Vibe is a standard issue insulin pump with an integrated CGM receiver and monitor driven by a Dexcom G4 sensor and transmitter. Also joining the combo pack in 2015 was the new Tandem [t:slim G4 with CGM](#). Similar to the Vibe,



Tandem has added a CGM powered by the Dexcom G4 to its popular modern form-factor color touch-screen pump.

Unlike 2014's Medtronic MiniMed low-threshold suspend 530G, these two new pumps are not in any way controlled by the CGM system but still provide a new level of connectivity and eliminate the need for a separate CGM receiver.

Do You Suffer From:

- Heel Pain
- Joint Pain
- Back or Knee Pain
- Neuropathy
- Plantar Fasciitis
- Arthritis
- Diabetes
- Obesity
- Achilles Tendinitis
- Bunions
- Hammertoe
- Heel Spurs



G-DEFY
SUPER WALK

Enjoy the benefits of exercise without harmful impact on your joints!

Boost energy

Combat health issues

Increase mobility

Relieve pain



Absorbs
Harmful
Impact



Returns
Energy



WIDE
WIDTH
AVAILABLE

X-WIDE
WIDTH
AVAILABLE



Super Walk

Men Sizes 7.5-15

- Black/Silver TB9004MBS
- White/Blue TB9004MWS



Women Sizes 5-11

- Black/Purple TB9004FBP
- White/Pink TB9004FWSP

~~\$129.95~~ **\$99⁹⁵**

Whether it's health-related or caused by an injury, discomfort can occur in anyone at any age—and there's no excuse to exercise less. In fact, being active with discomfort is the most natural way to keep your joints moving smoothly. Experience a better life with Gravity Defyer footwear—ease your discomfort and rediscover movement! The moment you put on a pair of Gravity Defyer shoes, you'll get flashbacks of the days where nothing could stop you.

Each Gravity Defyer shoe is exclusively designed with patented VersoShock® Technology, a system of springs that simultaneously work together to absorb harmful shock and return energy throughout the body. Get rid of that “I-can't-do-anything-anymore” attitude and let Gravity Defyer give you the relief you need while boosting your endurance and confidence. Transform your life right now and invest in a pair of Gravity Defyer shoes today!

\$30⁰⁰ OFF
Your Order

Free Exchanges • Easy Returns

Promo Code: PG4CHB9

gravity defyer
COMFORT FOOTWEAR TECHNOLOGY

Don't Forget
to check out our other
products to relieve
discomfort:



Men's Dress
Londonian \$165



Women's Sandals
Rosemary \$49.95



G-Comfort Insoles
TF501, TF502

VersoShock® U.S Patent #US8,555,526 B2. This product has not been evaluated by the FDA. Not intended to treat, cure or prevent any disease. Shoes must be returned within 30 days in like-new condition for full refund or exchange. Credit card authorization required. See website for complete details.

Call 1(800) 429-0039
GravityDefyer.com/PG4CHB9
Gravity Defyer Corp.
10643 Glenoaks Blvd. Pacoima, CA 91331



**ACCREDITED
BUSINESS**



Confidence While You Sleep

Introducing the only FDA approved, patented, wearable, non-invasive, sensor based Hypoglycemia symptom alarm on the market.



Learn more at diabetessentry.com or Call us toll-free 855.325.4537

What's NEW



► NEW IDEAS

In a new approach to treating neuropathy pain, NeuroMetrix describes its [Quell](#) as a next-generation TENS unit, using electricity to block pain signals between damaged nerves and the brain. The Quell device is built into a lightweight fabric and Velcro belt that wraps around one leg. The system's electrodes snap directly to the inside of the belt, and the belt provides a pouch for the controller, eliminating the tangle of wires from traditional electrical stimulators. While scrambling the pain signals

from neuropathy doesn't work for everyone, many users are reporting good results. Furthermore, the Quell is unique among electrical stimulators in having an FDA indication for overnight wear. The company also received FDA approval in January for an upgrade due out this month. Enhancements include extended battery life, enhanced data tracking for up to three months and a second, fast pulse stimulation mode.

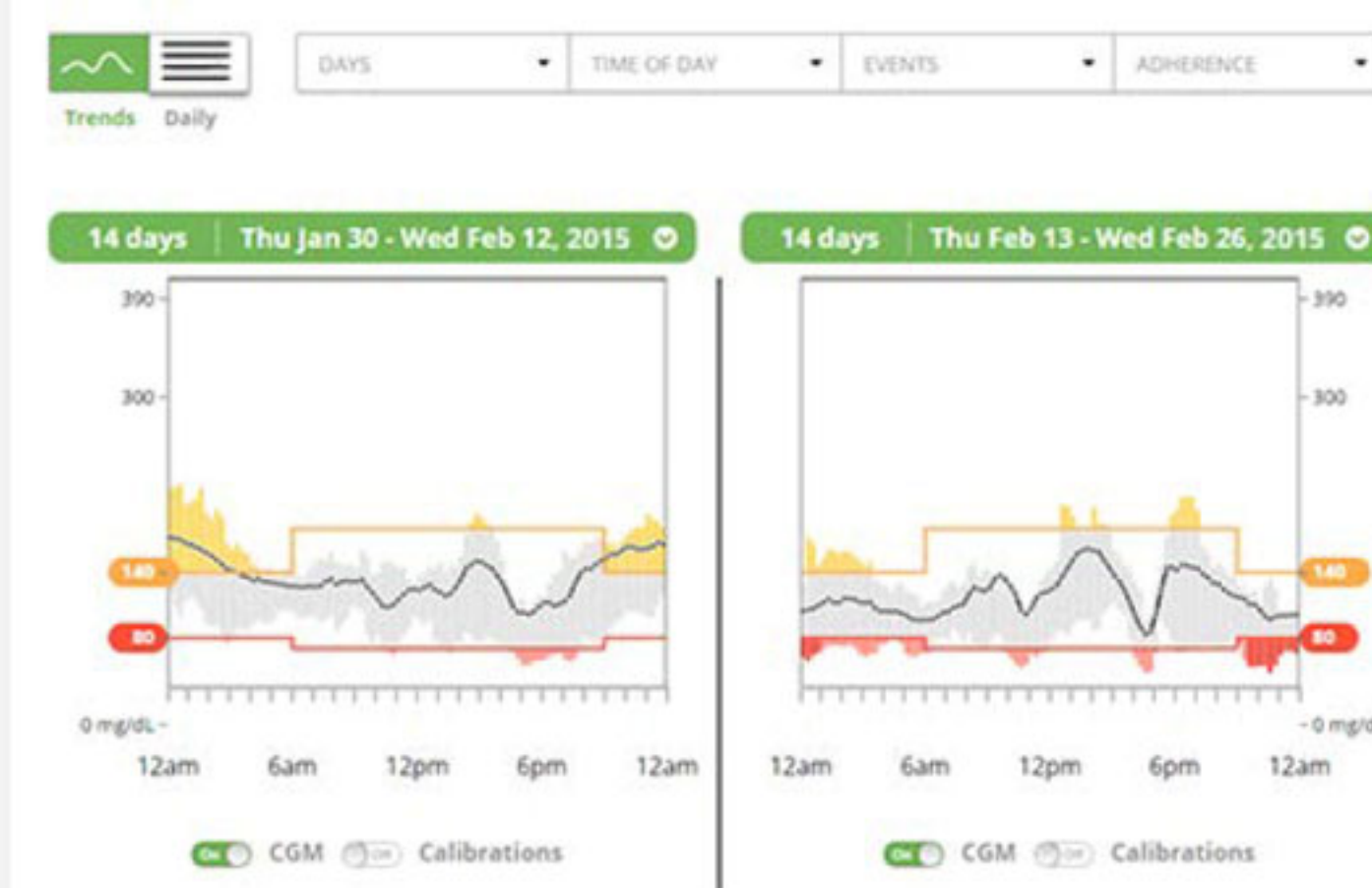
[Timesulin](#) is both the name of the company and of its crowdsource-funded single product: a timing cap for disposable insulin pens. In 2015, Timesulin became widely available in the U.S.,

thanks to distribution agreements with Kmart and Rite Aid. The device is a replacement cap featuring a timer that starts when the cap is removed for an injection. This allows users to confirm the time of the last injection and can also be used as a crude insulin onboard timer. Since disposable insulin pens vary from manufacturer to manufacturer, Timesulin has a range of caps to fit all the pens on the market.

Dexcom didn't limit its impact to devices in 2015. It also released a new data analysis software called [Clarity](#) that comes in both clinical and consumer versions. The goal of Clarity is



Select two date ranges to compare side-by-side.



to simplify the huge volume of data that comes from having 256 glucose readings every day. ▣

Wil Dubois is a diabetes treatment specialist for Pecos Valley Medical Center in New Mexico, a rural nonprofit clinic. He has Type 1 diabetes and is a health columnist and author of more than 275 articles and four award-winning diabetes books.

Jenny Craig
for **type2**[™]

GET THE MOST OUT OF LIFE TAKE CONTROL OF YOUR TYPE 2

When you combine weekly, personal one-on-one consultations with Jenny Craig's type 2 menu, you can lose weight to better manage your diabetes.

The Program

- ✓ The moment you're ready, Jenny Craig is here to help you reach your goal and get the most out of life
- ✓ We connect you with your dedicated personal consultant who helps customize your type 2 menu from over 80 delicious items and guides you every step of the way
- ✓ You don't have to count, track or worry over every meal—lose weight simply with Jenny Craig to take control of your diabetes and improve your health

The Proof

- ✓ Participants who followed our type 2 menu lost 3x more weight than those receiving usual care[†]

TRY US FREE FOR A MONTH*

plus the cost of food

Call 1.800.JENNY20 or visit
JENNYCRAIG.COM/DIABETES

[†]Diabetes Care 2014;37:1573-80. Doi:10.2337/dc13-2900

*Month of free consultations valid with trial membership or program enrollment. Cost of food and shipping not included. Valid at participating centers and Jenny Craig Anywhere, not valid at jennycraig.com. New members only. No cash value. Adjustment Code: J9. Not valid with any other offers or discounts. One offer per person. Offer expires: 4/30/16. Restrictions apply.

Jenny Craig[®] is a registered trademark. Used under license.

jenny
C R A I G[®]



Small Self-care Steps for Every Season

OPERATION DIABETES ORGANIZATION



By Susan Weiner, MS, RDN, CDE, CDN and Paula Ford-Martin, MA

WE LIVE IN STRESSFUL TIMES, with work, home, family, social and community obligations all vying for our time and attention. Often, our personal health and well-being get pushed down the priority list in favor of other obligations. The paradox is that the busier life gets, the harder you need to work to maintain your physical and emotional well-being and the more important it becomes to optimize both.

Diabetes is one of those diseases that you can't just put on the back burner when you get busy with the daily demands of life. If you ignore it, you can end up with serious, life-threatening complications. But it also is easy to get overwhelmed with the daily grind of counting carbs, checking blood sugar levels, taking medication and everything else that goes along with diabetes and to pull back on self-care efforts because of it.

The good news is that there are some simple ways to make many parts of diabetes management a part of your daily life, rather than an added stressor, all year long. Here are some of our best seasonal organizing tips from *Diabetes 365: Tips for Living Well* (Demos Health, 2015), to keep you on top of your game all year round. Choose a few on which to focus each season and see how easy-to-accomplish small steps can add up to big improvements in your overall health.



SPRING

Spring is a time of new beginnings, so what better opportunity to take charge

of your diabetes management? During this season, focus on setting yourself up for success with basic organizational tactics around your diabetes supplies, treatment and paperwork.

Getting Organized: A big part of diabetes management is organization. Use checklists to keep diabetes care tasks from falling through the cracks. You can create master checklists for supplies, snacks, meal planning and doctors' appointments. Or you can keep a running "to do" list of diabetes-related purchases or tasks you need to complete. Once you find a method that works for you, stick with it.

Spring Clean Your Supplies: Update your diabetes supplies as part of your spring cleaning ritual. Make sure your testing supplies (including your blood sugar meter and related equipment) are in optimal condition with fresh batteries. Get rid of items that are expired or that you no longer use. Check with local government agencies to find out how to dispose of expired or unwanted medications or pills.

Tame the Medication Monster: If you are managing more than one chronic health condition, you may be taking

many pills prescribed by several doctors. Each time you go to visit your diabetes doctor or certified diabetes educator (CDE), bring a list of all your prescriptions, over-the-counter medications and supplements. If you want to discuss a particular medication, make sure to bring it with you. Include the original packaging and labels. Your health-care provider can review what you're taking and make sure none of your medicines are causing problems with your blood sugar control.

Make the Most of Medical Deductions: Tax day is coming (April 15). The cost of virtually all your diabetes care and treatment typically is tax deductible. Beyond doctors' visits and prescription drugs, that includes blood sugar testing supplies and any expenses for weight-loss programs recommended by your doctor. Make sure you keep and track all of these receipts to take the largest medical deduction possible.



SUMMER

Summertime means vacations, picnics and sun. And let's not forget the delicious bounty of

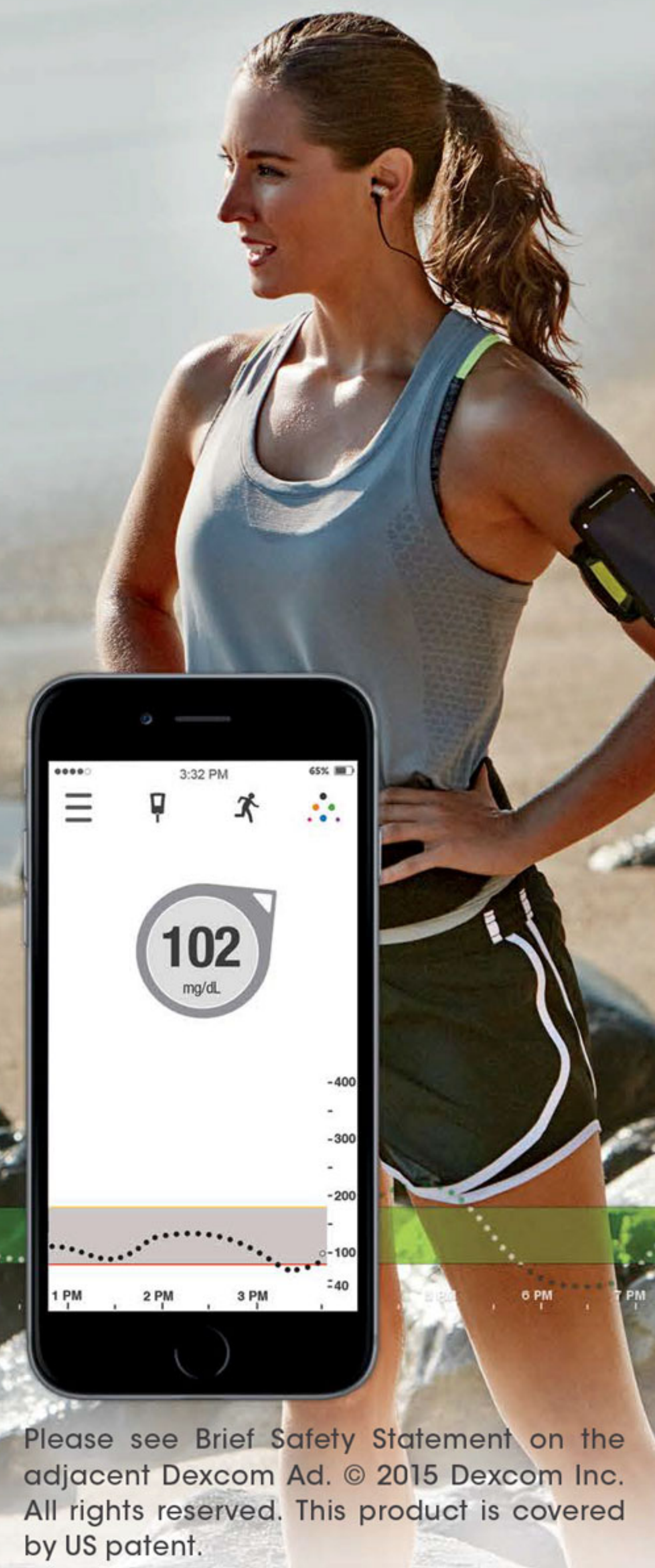
fresh seasonal produce from the garden and market. But outdoor activities and travel can make managing your blood sugar a bit challenging. Try these tips for making the most of the adventures of summer.

I ALWAYS KNOW

WHEN MY GLUCOSE LEVEL CAN GO ANOTHER MILE

IF YOU HAVE DIABETES, NOW YOU CAN ALWAYS KNOW YOUR GLUCOSE LEVEL WITH THE NEW DEXCOM G5™ MOBILE CONTINUOUS GLUCOSE MONITORING (CGM) SYSTEM. IT SENDS READINGS EVERY FIVE MINUTES* — AND ALERTS WHEN NECESSARY — FROM A SMALL, BODY-WORN SENSOR TO YOUR SMART DEVICE.** YOU WILL ALWAYS KNOW YOUR LEVEL, SO YOU CAN AVOID HIGHS AND LOWS.

dexcom | G5™
mobile
ALWAYS KNOW
DEXCOM.COM



Please see Brief Safety Statement on the adjacent Dexcom Ad. © 2015 Dexcom Inc. All rights reserved. This product is covered by US patent.

Rescue Your Game.

GOLF TIPS. It swings with you.



50% OFF
NEWSSTAND PRICE
OF \$29.95



> 1 YEAR
5 ISSUES
for only
\$14.97

GOLFTIPS

golftipsmag.com

800-283-4640

Picking Produce: Store produce properly so it doesn't spoil or lose flavor before you are ready to eat it. Most fruits and veggies should not be cleaned until you are ready to eat them. Wash tough-skinned produce such as melons, avocado and squash before cutting them. Once you cut up honeydew and cantaloupe, they should be refrigerated. Keep your tomatoes and bananas on the counter, and store potatoes in a cool, dark place in your pantry.

Summer Vacation: Plan your packing. Create a checklist of all clothing, essential toiletries and diabetes supplies you will need. That way, you'll never forget anything, and you can purchase last-minute items prior to your trip, saving you time, money and aggravation. If you are flying, carry on medications and other diabetes essentials rather than checking them in your bag. Have a lot of clothing to bring? Roll, rather than fold. You'll be able to fit a lot more in your suitcase.

Packing Your Picnic: Celebrate a lovely summer day with a picnic. Don't forget a food thermometer, ice for your cooler, storage containers, paper towels, trash bags and your diabetes supplies. Keep your meat cold until it's time to grill. Use the meat thermometer to check the internal temperature to ensure your meat or chicken is safe to eat. Never use the same plate or utensils for raw meat and cooked food.

Use a well-insulated cooler or insulated bags with ice packs to pack your leftovers. Keep any leftover raw meat in a separate cooler or well-sealed container to avoid contaminating other food. If it is over 80°F outside, don't bring home leftovers that have been outdoors for more than one hour. Unpack as soon as you arrive home, and refrigerate leftovers immediately.

Be Prepared: Depending on where you live, the summer months may bring the added dangers of hurricane, wild-fire or tornado season. Everyone with diabetes should have an emergency kit in case of a disaster. Your kit should

have two weeks' worth of diabetes supplies, extra batteries to power any devices, a first aid kit, drinking water and nonperishable snacks (e.g., juice boxes, canned food). Rotate your supplies regularly so nothing expires.



FALL

Fall means back to school and back to business after summer fun. Temperatures drop and the days get shorter, and that can mean changes in your eating, exercise and other health-care habits. Use these planning techniques to stay on top of your diabetes.

Sweeping Time: Have trouble managing your time in the morning to fit in all the necessary diabetes self-care tasks? Replace your digital clock with an old-school analog one. Seeing the physical sweep of time often is a more powerful motivator than seeing electronic numbers on a screen. Analog clocks are fairly inexpensive, so try putting one in the bathroom, one in the kitchen and one in your bedroom.

Trade Your Lunch Bag for a Bento Box: Replace your brown bag with a reusable bento box. These sectioned, pre-portioned containers are great for keeping portion sizes in check and encouraging you to include a variety of foods in your lunch. They also look cool. Bento boxes are available in microwave-safe materials, so you can enjoy cold and hot foods together.

Dress for Exercise Success: When the weather cools off, gearing up right for exercise is essential. Wear a thin layer of synthetic material such as polypropylene next to your body. This material draws moisture away from your body, so it's perfect for outdoor workouts. You can wear additional layers over that. When the temperatures drop, wear a hat, earmuffs and gloves to protect yourself from the elements.

Stay on Top of Insurance Planning: October means the start of open enrollment for health insurance for many

Americans. Re-evaluate your options each year, and make sure you have the best plan for managing your diabetes. If you receive insurance through your employer, schedule an appointment with your benefits counselor to review your options.

Open enrollment month also is your chance to start planning for the next year's health expenses. There are two options available: the flexible spending account (FSA) and the health savings account (HSA). These are great ways to save tax dollars on your diabetes expenses. Each offers different advantages, depending on your anticipated health spending needs in the coming year. Ask your accountant and/or your human resources representative about what may be right for you.



WINTER

For many of us, winter is the most challenging season during which to manage our

health. The holidays are filled with food, drink and social obligations—not to mention a hefty dose of stress. And in many parts of the country, snow and ice can become a barrier to regular exercise. But with a little planning, you can continue to manage your blood sugars throughout the winter months.

Destressing the Holidays: Keep your sanity during the holiday season. Keep a list of everything you want to accomplish (no task is too small). Remember to include things that you *want* to do, not just what you *have* to do. And make sure it's realistic; you are allowed to eliminate any items that add stress without giving joy in return. This will help you stay organized and feel accomplished as you check items off your list.

Don't let taking care of yourself fall off your to do list—maintain your exercise schedule to keep stress and weight under control. One way to ensure you take time for yourself is to book a massage or other spa treat in the weeks leading up to the holidays.

Pay up front so you won't cancel at the last minute.

Deep Freeze: Snow and ice can prevent regular outdoor exercise, and blood sugar management can suffer as a result. You can join a gym, if there's one nearby that fits your personal and financial needs. If not, there are other options. Walk an indoor mall. Swim indoors at a community center. You can even rent or buy an exercise game for your child's gaming system and Zumba in your living room. And remember—snowball fights and shoveling count as exercise, too.

Perfectly Packed Leftovers: The next time you make a casserole, stew or other family entrée and have leftovers, don't just put the whole pot or dish back into the fridge. Instead, store the remainder in individual, single-portion containers. The fridge is fine for one or two containers that will be eaten within the following two days, but freeze the rest to avoid waste. When food is pre-portioned, you are less likely to overeat.

Write Down Every Bite: 'Tis the season for overeating. Writing down everything you eat in a food diary or food tracking app is a great way to stay accountable. It's also helpful to include the time you eat and your feelings while eating (such as stress, boredom or anxiety). Food journals can help identify nutritional issues as well as emotional and behavioral responses to daily situations. They help us practice "mindful eating."

No matter the season, planning ahead for trouble spots and setting small, achievable goals are key to living well with diabetes. You can reach your diabetes management goals by making your health and well-being a priority all year round. ▣

Susan Weiner is the 2015 AADE Diabetes Educator of the Year and the owner of Susan Weiner Nutrition, PLLC. Paula Ford-Martin is a professional health writer, editor and video producer. Tips adapted from *Diabetes 365: Tips for Living Well* (Demos Health, 2015).

I ALWAYS KNOW

WHEN MY GLUCOSE LEVEL CAN GO ANOTHER MILE

IF YOU HAVE DIABETES, NOW YOU CAN ALWAYS KNOW YOUR GLUCOSE LEVEL WITH THE NEW DEXCOM G5™ MOBILE CONTINUOUS GLUCOSE MONITORING (CGM) SYSTEM. IT SENDS READINGS EVERY FIVE MINUTES* — AND ALERTS WHEN NECESSARY — FROM A SMALL, BODY-WORN SENSOR TO YOUR SMART DEVICE.** YOU WILL ALWAYS KNOW YOUR LEVEL, SO YOU CAN AVOID HIGHS AND LOWS.

Dexcom | G5™
mobile
ALWAYS KNOW
DEXCOM.COM



Please see Brief Safety Statement on the adjacent Dexcom Ad. © 2015 Dexcom Inc. All rights reserved. This product is covered by US patent.

I ALWAYS KNOW WHEN MY GLUCOSE LEVEL CAN GO ANOTHER MILE

IF YOU HAVE DIABETES, NOW YOU CAN ALWAYS KNOW YOUR GLUCOSE LEVEL WITH THE NEW DEXCOM G5™ MOBILE CONTINUOUS GLUCOSE MONITORING (CGM) SYSTEM. IT SENDS READINGS EVERY FIVE MINUTES* — AND ALERTS WHEN NECESSARY — FROM A SMALL, BODY-WORN SENSOR TO YOUR SMART DEVICE.** YOU WILL ALWAYS KNOW YOUR LEVEL, SO YOU CAN AVOID HIGHS AND LOWS.



*Dexcom G5 Mobile User Guide, 2015 ** For a list of compatible devices, visit www.dexcom.com/compatibility

BRIEF SAFETY STATEMENT The Dexcom G5 Mobile Continuous Glucose Monitoring System is a glucose monitoring system indicated for detecting trends and tracking patterns in persons (age 2 years and older) with diabetes. **CONTRAINDICATIONS** Remove the System before MRI, CT scan, or diathermy treatment. The device is MR Unsafe. Do not bring any portion of the System into the MR environment. Taking acetaminophen while wearing the sensor may falsely raise your sensor glucose readings. **WARNING** Do not use the System for treatment decisions. The System does not replace a blood glucose meter. The System is not approved for use in pregnant women, persons on dialysis or critically ill persons. If a sensor breaks and no portion of it is visible above the skin, do not attempt to remove it. Seek professional medical help if you have infection or inflammation. Report broken sensors to Dexcom Technical Support. Sensor placement is not approved for sites other than under the skin of the belly (ages 2 years and older) or upper buttocks (ages 2-17 years). Your smart device's internal settings override your app settings. Accessory devices (like a smart watch) might override your smart device's alert and notification settings. The Share feature must be turned "On" with an active internet connection to communicate glucose information to a Follower. The Follower must download and install the Dexcom Follow App onto a separate smart device with an active internet connection to receive data. Contact Dexcom Toll Free at 877-339-2664 or www.dexcom.com for detailed indications for use and safety information. © 2015 Dexcom Inc. All rights reserved. This product is covered by US patent.



dexcom | G5™
mobile
ALWAYS KNOW

DEXCOM.COM

3 AM 4 AM 5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM

NAVIGATING

the Options of **mHealth** for Diabetes



By Laura
Hieronymus,
DNP, MEd,
RN, MLDE,
BC-ADM,
CDE, FAADE

The use of mobile applications (apps)—also known as mHealth—is rapidly becoming a go-to option for consumers to track, measure and improve health outcomes. The advent of smartphone technology and its widespread use have contributed to the ease of access to health information, as well as a host of options for recording and conveying that information. When you have a chronic illness such as diabetes that requires daily self-management skills, it stands to reason that using mHealth could prove helpful. In fact, research suggests management of diabetes is one area in which mHealth could enhance the quality of life for those living with the disease.

Apps focused on diabetes self-management are probably the fastest growing segment of mHealth technology. In a recent two-year period, the number of apps for diabetes self-management strategies increased more than 400%. With such an abundance of options, how do you choose what works best for you? It is essential that you understand that an app to help you with your day-to-day life with diabetes does not replace medical advice from your diabetes care team (or any health-care professional, for that matter).

The best place to start when considering using mHealth is with your health-care providers. Relay your interest in using mobile apps and what you are looking to get out of it. For example, do you want to track your activities related to a specific self-care behavior, such as meal planning, physical activity, monitoring or medication? Do you want to focus solely on one item or be able to track a number of items simultaneously? Once you have an app in mind, gather information about it and take it with you to your next diabetes care visit.

Scrutinizing mHealth Options

As you research mHealth options, the following questions are important. Based on your findings, you and your diabetes care team can discuss which apps are most appropriate for your personal diabetes self-management.

→ *What is the source of the information provided?*

You expect your diabetes care and education providers to have expertise in treatment and education. As you research apps for diabetes self-management, you will want to think about where the information comes from. In other words, mHealth material should be accurate, reliable and valid. Look to see if health-care professionals with expertise in diabetes are members of the mobile technology team. If not, determine the credentials of the individual or team that developed the app's health information. Details about the source should be readily available, including contact information. If not, you might want to question if the information is correct, trustworthy and credible.

→ *Is the information evidence-based?*

Your diabetes care team assists you with developing a diabetes care plan based on the integration of the best research evidence, your individual diabetes case and clinical expertise the team has gained from working with patients over time. Standards of diabetes care reflect studies of the highest quality and ongoing research to identify treatment and care options, along with careful review and interpretation by experts. Ideally, your mobile health options will reflect the latest and greatest in research and patient care. However, between consumer demand in the mHealth market and corporate business interest in quickly creating a product that is in high demand, you want to be sure the information provided is credible. Because your diabetes care providers should be well-versed in the most up-to-date standards for diabetes care, they can help you make optimal mHealth choices.

→ *How often is the information updated?*

The source should be clear about the review and update process for mHealth-provided information. While there is no hard and fast rule about the frequency of updates, the app should be reviewed periodically (with a date specified) to make sure the information reflects the most current evidence and standards of care. Standards of care and recommended clinical practice typically are updated when research data are strong enough to support a change; thus, the app should reflect such updates, which may occur as often as once a year.

→ *What about user privacy?*

Generally, an app for consumers does not fall under the Health Insurance Portability and Accountability Act (HIPAA), a U.S. law that applies privacy standards to protect your medical records and other health information provided to health entities such as insurance plans, health-care providers and health-care systems. If you download

an app to your smartphone, you are seeking information for your own use. On the other hand, if you choose to use the app to convey or transfer information, such as your blood glucose readings, to your HIPAA-covered diabetes care team, it then becomes subject to HIPAA. Once the team receives your blood glucose readings, they become protected health information (PHI).

As with any electronic source, you should treat your personal information carefully. Read the source's privacy policies carefully; be suspicious if there are none. (See sidebar, Tips for Securing Personal Information Online).

→ *What is the usability?*

Usability refers to the ease of use and learnability of the app itself. You should be able to use the app as intended based on the icons, graphic displays and signals on the mobile device screen. If you are using the app solely to download informa-

**RESEARCH
SUGGESTS
MANAGEMENT
OF DIABETES
IS ONE AREA
IN WHICH
MHEALTH
COULD
ENHANCE THE
QUALITY OF
LIFE FOR THOSE
LIVING WITH
THE DISEASE.**

tion, then you may be more interested in features, such as whether the app interfaces with the newest technology. You may need to consult with your mobile device company to determine if certain apps are available. A search for particular content may provide only options from that company. When you search for a particular app, be specific about the content. For example, instead of searching for the term “diabetes,” search for a more specific term, such as “diabetes meal plan.” You can get even more specific by narrowing the search to the type of diabetes. Your diabetes care team can help you identify specific topics appropriate for you.

→ *Is there a cost associated with the use?*

Be sure to find out if there is any cost for the app. Also, if a free trial period exists, will you be charged at a later date and, if so, is the expense specified up front? Cost doesn’t always mean better in terms of evidence and accuracy. One review of mHealth apps for weight loss determined apps that cost money did not include more evidence-based strategies than free apps. If the app you choose comes with a cost, be sure you are using a secure site to enter any personal data such as credit card information.

Regulation and Review

Health-related apps directly available to consumers generally do not require review and approval by the Food and Drug Administration (FDA). Currently, the apps regulated by the FDA are those intended for use by health-care providers to assist in patient care delivery.

Websites exist that serve as app clearinghouses, collecting and providing information about specific items. Be sure to determine the credibility, reputation and commitment to quality diabetes care and education of the organization “clearing” the information. One example, which includes apps for diabetes nutrition management, is the Academy of Nutrition and Dietetics (www.eatright.org/appreviews), at which registered dietitians (RDs) write science-based reviews of apps. The RD writes a synopsis of the app, discusses pros and cons, offers the bottom line and rates the app on a scale of one to five stars. RDs are integral to diabetes care teams and are experts in food and nutrition.

An area of caution is user ratings and reviews. App users may provide reviews of an app’s ease of use and interaction with

TIPS for Securing Your Personal Information Online

The Federal Trade Commission (FTC) offers several suggestions to help you keep your personal information secure when using electronic devices. The following tips are adapted from its website.

- Be wary—don’t give out any personal information unless you are positive you know the source.
- Before you dispose of a computer or mobile device, be sure all information is deleted from it. Utilize a reputable company to assist with any necessary transfer of data.
- Encrypt or code data to keep your device secure; ask your mobile phone provider about available options.
- Make sure your passwords are private.
- Secure your Social Security number. If the number is requested, ask these questions:
 - ▶ Why is it needed?
 - ▶ How will it be used?
 - ▶ How will it be protected?
 - ▶ What are the consequences of not sharing it?

You are the keeper of your personal information. Do everything you can to assure it is safe and secure online. For more information, visit <http://www.consumer.ftc.gov/articles/0272-how-keep-your-personal-information-secure>.

mobile devices. The popularity of an app doesn’t always reflect its accuracy, since the average consumer may not be an expert or consider whether evidence supports the information provided. Such user reviews may, however, influence apps that have been on the market for a longer period of time, informing app providers when they incorporate improvements in new versions.

Opportunities for mHealth

As mobile technology becomes smarter, you can expect rapid growth in mHealth. Health-care systems (hospitals, provider offices and insurers) acknowledge that smartphones are a viable option for health-care information exchange. Health information technology that involves the exchange of health information electronically is predicted to further improve the quality of health care, prevent medical mistakes, reduce health-care costs, promote efficiency, minimize paperwork and, ideally, expand access to affordable health care. Health-care systems are charged with evaluating and developing technology options that will better assure evidence-based, accurate and secure electronic health information. Discuss with your diabetes care team the mHealth options available in your health-care system.

Conclusion

As you navigate your mHealth options, inform your diabetes care team about how well—or badly—an app has worked for you. Hands-on discovery can be valuable to your provider and diabetes educator in understanding the usefulness of a particular app. Feedback from patients with diabetes can help diabetes

care teams identify user-friendly apps that might work for other patients. Don’t be shy about providing input (good or bad) about your health-care system’s health information technology resources.

The world of mHealth is here and at your fingertips. Embrace it—and choose options that make the most out of your personal diabetes care and education. ■

Laura Hieronymus, D.N.P., is a doctor of nursing practice and master licensed diabetes educator. She is affiliated with the Barnstable Brown Kentucky Diabetes Center and the College of Nursing at the University of Kentucky in Lexington.



SHOCKING RESULTS FROM ANEMIA STUDY

New Remedy Boost EPO Levels By 44%

BY MARK HANSEN

For years, researchers have been looking for safe and effective ways to fight anemia. Until now, their main focus has been on prescription drugs. Unfortunately, the drugs being used today aren't necessarily the most effective or safe way to fight anemia. Let me explain.

In 2009, there was a landmark clinical trial by the American Society of Nephrology. The results were published in *The New England Journal of Medicine*. The trial found that an anemia drug, Aranesp, nearly doubled the risk of stroke. It also increased the risks of blood clots and cancer.

Dr. Ajay K. Singh, a nephrologist at Harvard's Brigham and Women's Hospital in Boston, said that the new findings "turned the world of anemia management upside down."

Debbi Cafarelli discovered the risks of prescription drugs first-hand when her mother developed kidney disease. Debbi is a Certified Natural Health Professional in Crescent, Pennsylvania. Debbi was

faced with difficult choices a year ago when her mother developed kidney disease and ended up in critical care. As it turns out, Debbi's mother suffered a massive stroke after being put on the anemia drug Procrit. After the stroke, Debbi's mother refused to take drugs. Even blood transfusions weren't working. And the iron pills only made her mother vomit.

"That night I went home and searched the internet for answers," Debbi said. "I was looking for something natural. Something to help save my mother's life."

You've probably asked yourself more than once, "Are prescription drugs my only option?" I'm happy to report they're not. Recent studies point to an all-natural supplement that promotes the production of new red blood cells for people with anemia. It's giving them more energy. And hope.

As you may know, EPO is the hormone produced by the kidneys that stimulates the production of new red blood cells from bone marrow. With kidney disease,

your production of EPO is significantly reduced. This results in a drop in your red blood cell count. A healthy red blood cell count is critical, since red blood cells are responsible for carrying oxygen to all the muscles and organs of your body. A higher red blood cell count = more oxygen = more energy. Think of EPO as the trigger for this process.

Unfortunately, synthetic EPO drugs come with serious side effects and safety concerns. Until now, there hasn't been many other options for patients affected by anemia.

But in the past few years that has all changed with the development of an all-natural supplement called Prohemia®. With more than a dozen active ingredients in its patent pending formula, Prohemia® is designed to vigorously boost your red blood cell count to healthy levels. Its ingredients can help increase iron absorption, reduce inflammation and increase hemoglobin levels. Hemoglobin is the protein that carries oxygen in your red blood cells.

One active ingredient in Prohemia® has been shown to stimulate the kidneys to produce more EPO. In fact, a double blind, placebo-controlled study carried out by researchers at Northwestern State University showed that daily consumption of the active ingredient in Prohemia® increased EPO levels 44% compared to a placebo treatment.¹ Needless to say, these results stunned medical practitioners.

Debbi Cafarelli stated, "Without [Prohemia], my mother wouldn't be here today. Her kidneys would have failed. It saved her life. Gradually, Mom got her energy back. And she's back to where she was before she got sick. You should see her at church now."

Debbi's mother is just one of many anemia sufferers who have had their lives turned around with Prohemia. "Everyone with anemia needs to be on this," Debbi said. "Believe me, it works. I've seen it first-hand."

Prohemia® is risk-free. Just check your lab results for an improvement in your red blood cell numbers 30-60 days after starting Prohemia®. If you're not 100% satisfied with your results, you can return Prohemia for a full refund. No questions asked. You can order Prohemia 7 days a week by visiting www.prohemia.com or by calling 1-800-382-3410.

¹ Whitehead et al. *Int J Sport Nutr Exerc Metab*, 17 (2007): 378-9.



Diabetes
SELF-MANAGEMENT

Presented by
Dexcom[®]

A BOLD NEW WORLD FOR DIABETICS

How technology can give you a well-deserved break!

Visit dsm.to/diabetestech to watch a Two-Part Video Series
by *Diabetes Self-Management*

Living with diabetes takes constant work and supervision. The bionic pancreas can do the work for you while providing the most accurate information in a simple and practical device. Our Diabetes and Technology video can show you the science behind the bionic pancreas and how it can help you track and maintain low glucose levels in a way that works with your lifestyle.

**FREE
DIABETES
VIDEOS!**



You'll learn...

- How the bionic pancreas measures glucose in a non-invasive way
- How to average lower glucose levels while avoiding hypoglycemia
- How technology can maintain glucagon and glucose levels
- The future of diabetes treatment technologies

Dr. Steven J Russell explains the science behind the bionic pancreas and the many capabilities of this groundbreaking new technology.

Visit dsm.to/diabetestech to take a peek at the future of diabetes technology!

Diabetic Cooking

More Than
10 YEARS
TRUSTED and
APPROVED
by Registered
Dietitians

Pizza Night Done Right

Page 62

Fast Food

Page 78

Healthy Whole Grains

Page 84

SPRING VEGETABLE FEVER

Page 72



SUPERMARKET SMARTS
STORE-BOUGHT
POPCORN:
Which to pop,
which to drop

PAGE 91

RECIPE INDEX

PIZZA NIGHT

- 63** Spinach and Sausage Pizza
- 63** Mexican Pizza
- 64** Artichoke Pizza
- 64** Breakfast Pizza
- 65** Veggie-Packed Pizza
- 65** Stir-Fry Vegetable Pizza
- 69** Onion and Shrimp Flatbread Pizza with Goat Cheese
- 69** Instant Individual Pizza
- 70** Vegetable Pizza Primavera
- 70** New York-Style Pizza Crust
- 71** Wild Mushroom Flatbread
- 71** Bell Pepper and Ricotta Calzones



THINK SPRING

- 73** Roasted Salmon with Sugar Snap Peas
- 73** Spring Vegetable Ragoût
- 74** Penne with Spring Vegetables
- 74** Spring Tuna Casserole
- 75** Asparagus and Scallion Omelet with Tortilla Wedges
- 75** Couscous Primavera
- 76** Springtime Panzanella
- 76** Chicken with Spinach and Artichokes
- 77** Spinach Parmesan Risotto
- 77** Spring Greens with Raspberry Vinaigrette and Goat Cheese



WEEKNIGHT COOKING

- 79** Bacon and Kale Frittata
- 79** Stir-Fried Beef & Spinach
- 80** Skillet Fish with Lemon Tarragon "Butter"
- 80** Sweet and Savory Turkey Cutlets
- 81** Oriental Vegetables and Ham
- 81** Rosemary-Lemon Pork Kabobs
- 82** Lemon Shrimp with Black Beans and Rice
- 82** Swiss & Greens Chicken Roll-Up
- 83** Balsamic Chicken and Rice
- 83** Greek Chicken Burgers with Cucumber Yogurt Sauce



WHOLE GRAINS

- 85** Sprouts and Bulgur Sandwiches
- 85** Butternut Squash and Millet Soup
- 86** Barley Beef Stroganoff
- 86** Tabbouleh-Style Amaranth Salad
- 87** Farro Veggie Burgers
- 87** Banana Spelt Muffins
- 88** Sweet Curried Chicken and Quinoa Salad
- 88** Creamy Barley Pudding with Raisins and Nuts
- 89** Bulgur with Asparagus and Spring Herbs
- 89** Roasted Salmon and Asparagus with Quinoa
- 90** Chile and Lime Quinoa



For the Way You Live

The recipes in this publication were specially selected for people with diabetes. All are based on the principles of sound nutrition as outlined in the dietary guidelines developed by the U.S. Dept. of Agriculture and the U.S. Dept. of Health and Human Services, making them perfect for the entire family.

Diabetic Cooking recipes are not intended as a medically therapeutic program nor as a substitute for medically approved meal plans for individuals with diabetes. Instead, they contain various amounts of calories, fat, protein, cholesterol, sodium, fiber, and carbohydrate that will fit easily into an individualized meal plan designed by you and your certified diabetes educator, registered dietitian, or physician.

Each person's dietary needs are different. There is no single food plan that works for everyone. That's why we have included a nutritional analysis with each recipe. Then, no matter what your dietary goals are, you have the information you need to choose the recipes that are right for you.

A Word About Sugar

In 1994, the American Diabetes Association lifted its absolute ban on sugar from its recommended dietary guidelines. Under these guidelines, you can exchange 1 tablespoon sugar for a slice of bread, for example, because each is considered a starch exchange. The guidelines for sugar are based on scientific studies that show carbohydrate in the form of sugars does not raise blood sugar levels more rapidly than other types of carbohydrate-containing foods. What is important is the total amount of

carbohydrate eaten, not the source.

However, sweets and other foods high in sugar may also be high in fat and low in nutrients. So the better choice between an apple and a doughnut is still an easy one to make. Sugar can be eaten in modest amounts as part of a balanced diet, whether or not the person has diabetes. When figured into your meal plan, a small amount of sugar enhances a food's flavor and texture without being harmful.

If you have any questions or concerns about the use of sugar, consult your certified diabetes educator, registered dietitian, or physician for more information.

Nutritional Analysis

The nutritional analysis that appears with each recipe was calculated by an independent nutrition consulting firm. Every effort has been made by

the editors to check the accuracy of these numbers. However, because numerous variables account for a wide range of values for certain foods, nutritional analyses should be considered approximate.

The analysis of each recipe includes all ingredients listed for a recipe except ingredients labeled as "optional" or "for garnish." When a range is offered, the first amount listed is used in the calculation. If an ingredient is listed with an option, the first item is used in the calculation. Foods shown on the same plate in a photograph and foods listed as "serve with" suggestions at the end of a recipe are not included in the recipe analysis unless they're listed in the ingredient list. In recipes calling for rice or noodles, the analyses are based on rice or noodles prepared without added fat or salt, unless otherwise stated.

Understanding Our Symbols

Like everyone, you're busy – and we kept that in mind when we selected recipes for this issue. Many of the recipes in *Diabetic Cooking* can be prepared in 30 minutes or less. Others require short preparation times followed by long cooking times.

We've also included symbols to help you more easily find those recipes especially low in fat, sodium, and carbohydrates, and high in fiber.



LOW-FAT RECIPE

Contains 3 grams or fewer of fat per serving



LOW-SODIUM RECIPE

Contains 140 milligrams or fewer of sodium per serving



LOW-CARBOHYDRATE RECIPE

Contains 15 grams or fewer of carbohydrate per serving



HIGH-FIBER RECIPE

Contains 5 grams or more of fiber per serving

BOLOGNESE-STYLE PAPPARDELLE
with a Dash of Inspiration



Get creative in the kitchen, with Mrs. Dash® Seasoning Blends.
With 15 delicious, salt-free flavors, it's easy to get inspired.

Find this recipe and more. **Mrs. Dash**® mrsdash.com/destinations

AT-HOME PIZZERIA

ON HECTIC WEEKNIGHTS, it can be tempting to pick up the phone and order a pizza. But the greasy, floppy pie that ultimately is delivered is hardly ever worth the cost to both your wallet and your diet plan. The next time you're tempted, put down that phone and whip up a homemade pizza or calzone instead. Many of these simple recipes are just as quick as delivery, and all are sure to be better for your health and your budget – and they'll taste better, too.



Spinach and Sausage Pizza



MAKES 6 SERVINGS (2 SLICES PER SERVING)

Nutrients per Serving:

Calories 210, Total Fat 6g, Saturated Fat 3g, Protein 12g, Carbohydrates 28g, Cholesterol 20mg, Dietary Fiber 5g, Sodium 525mg

Dietary Exchange: 2 Bread/Starch, ½ Fat, 1 Meat

- 3 ounces (1 link) smoked turkey sausage, thinly sliced
- 2 ready-made whole wheat pizza crusts (5 ounces each)
- ½ cup fat-free ricotta cheese
- 1 clove garlic, crushed
- ½ teaspoon Italian seasoning
- 2 tablespoons grated Parmesan cheese
- 2 cups baby spinach leaves, coarsely chopped
- 2 plum tomatoes, thinly sliced
- ½ cup (2 ounces) shredded reduced-fat mozzarella cheese

1. Coat nonstick skillet with nonstick cooking spray; heat over medium heat. Add sausage; cook until browned.
2. Preheat oven to 450°F. Place pizza crusts on baking sheet.
3. Combine ricotta cheese, garlic, Italian seasoning and Parmesan cheese in small bowl. Spread in thin layer over pizza crusts within ½-inch of edge. Layer sausage evenly over cheese mixture.
4. Sprinkle spinach over sausage. Arrange tomatoes on top and layer with mozzarella cheese. Bake 12 to 15 minutes or until cheese is melted and golden brown and edges are crisp. Cut each pizza into 6 slices.

Mexican Pizza

MAKES 8 SERVINGS

Nutrients per Serving:

Calories 244, Total Fat 6g, Saturated Fat 3g, Protein 12g, Carbohydrates 36g, Cholesterol 11mg, Dietary Fiber 3g, Sodium 699mg

Dietary Exchange: 2½ Bread/Starch, 1 Meat

- 1 package (about 14 ounces) refrigerated pizza crust dough
- 1 cup chunky salsa
- 1 teaspoon ground cumin
- 1 cup no-salt-added canned black beans, rinsed and drained
- 1 cup frozen corn, thawed
- ½ cup sliced green onions
- 1½ cups shredded 2% Mexican cheese blend
- ½ cup chopped fresh cilantro (optional)

1. Preheat oven to 425°F. Unroll pizza dough onto 15X10X1-inch jelly-roll pan coated with non-stick cooking spray; press dough evenly to all edges of pan. Bake 8 minutes.

2. Combine salsa and cumin in small bowl; spread over partially baked crust. Top with beans, corn and green onions. Bake 8 minutes or until crust is deep golden brown. Top with cheese; continue baking 2 minutes or until cheese is melted. Cut into squares; garnish with cilantro, if desired.

Take Note!

Save the remaining ¾ cup beans (from a 15- or 16-ounce can) in the refrigerator for up to 4 days to add to salads or soups.



Artichoke Pizza

MAKES 2 SERVINGS

Nutrients per Serving:

Calories 281, Total Fat 9g, Saturated Fat 3g, Protein 18g, Carbohydrates 34g, Cholesterol 10mg, Dietary Fiber 1g, Sodium 485mg

Dietary Exchange:

2 Bread/Starch, 1 Fat, 1 Vegetable, 1 Meat

- 1 cup thinly sliced mushrooms
- ½ cup thinly sliced onion
- 1 (6-inch) prepared pizza crust
- ½ cup thinly sliced artichoke hearts (not marinated in oil), drained
- ½ cup (2 ounces) shredded reduced-fat Swiss cheese or reduced-fat Italian blend cheese

1. Preheat oven to 450°F. Coat small skillet with nonstick cooking spray. Cook mushrooms and onion over low heat about 10 minutes until vegetables are tender but not browned. Spread on pizza crust.

2. Top pizza with artichoke hearts and cheese. Bake 8 to 10 minutes or until cheese is melted.

Breakfast Pizza

MAKES 2 TO 4 SERVINGS

Nutrients per Serving:

Calories 360, Total Fat 9g, Saturated Fat 4g, Protein 21g, Carbohydrates 52g, Cholesterol 15mg, Dietary Fiber 6g, Sodium 736mg

Dietary Exchange: 3 Bread/Starch, 1 Vegetable, 2 Meat

- 2 cups refrigerated or frozen shredded hash brown potatoes, thawed
- ½ cup finely chopped onions
- ¼ cup tomato paste
- 2 tablespoons water
- ½ teaspoon dried oregano
- ½ cup cholesterol-free egg substitute
- ½ cup (2 ounces) shredded mozzarella cheese
- 2 tablespoons imitation bacon bits

1. Combine potatoes and onion in medium bowl.

2. Lightly spray medium nonstick skillet with nonstick cooking spray. Add potato mixture; flatten with spatula. Cook 7 to 9 minutes per side or until both sides are lightly browned.

3. Mix tomato paste and water in small bowl; spread evenly over potatoes in skillet and sprinkle with oregano.

4. Pour egg substitute over potato mixture; cover and cook 4 minutes. Sprinkle mozzarella and bacon bits over egg; cover and cook 1 minute.

5. Slide pizza from skillet onto serving plate. Cut into 4 wedges.





Veggie-Packed Pizza

MAKES 6 SERVINGS
(1 WEDGE EACH)

Nutrients per Serving:

Calories 129, Total Fat 7g, Saturated Fat 3g, Protein 11g, Carbohydrates 5g, Cholesterol 41mg, Dietary Fiber 2g, Sodium 258mg

Dietary Exchange: 1 Fat, 1 Vegetable, 1 Meat

2½ cups finely chopped fresh cauliflower (about ½ head)

1½ cups (6 ounces) shredded reduced-fat mozzarella cheese, divided

1 egg

4 teaspoons chopped fresh oregano, divided

½ cup sliced mushrooms

½ cup sliced assorted bell peppers (red, yellow, green and/or a combination)

½ cup sliced red onion

2 teaspoons olive oil

3 tablespoons pasta sauce, any flavor

Dash red pepper flakes

1. Preheat oven to 450°F. Spray pizza pan with nonstick cooking spray. Line large baking sheet with foil.

2. Place cauliflower in medium microwavable bowl; mi-

crowave on HIGH 4 minutes. Stir; microwave on HIGH 4 minutes or until tender. Let cool slightly.

3. Add 1 cup cheese, egg and 2 teaspoons oregano to cauliflower; mix well. Pat mixture into 9-inch circle in prepared pizza pan; spray with cooking spray.

4. Combine mushrooms, bell peppers and onion on prepared baking sheet. Drizzle with oil; toss to coat.

5. Roast vegetables 14 to 15 minutes or until tender. Bake cauliflower crust during last 10 to 12 minutes of cooking time or until crust is golden brown around edges.

6. Spread pasta sauce over crust; top with roasted vegetables and remaining ½ cup cheese. Bake 6 to 7 minutes or just until cheese is melted. Sprinkle with remaining 2 teaspoons oregano and red pepper flakes. Cut into 6 wedges.

Take Note!

To chop the cauliflower easily, place it in a food processor and pulse until finely chopped. If you don't have a pizza pan, you can bake the cauliflower crust on a second baking sheet.

Stir-Fry Vegetable Pita Pizzas

MAKES 4 SERVINGS (1 PIZZA PER SERVING)
SERVING SIZE

Nutrients per Serving:

Calories 175, Total Fat 5g, Saturated Fat 2g, Protein 9g, Carbohydrates 25g, Cholesterol 9mg, Dietary Fiber 5g, Sodium 381mg

Dietary Exchange:

1 Bread/Starch, 1 Fat, 2 Vegetable

1 teaspoon olive oil

1 red bell pepper, sliced

1½ cups (4 ounces) cremini mushrooms, thinly sliced

1 medium zucchini, thinly sliced

2 cloves garlic, minced

¼ teaspoon black pepper

2 (6-inch) whole wheat pita breads

¼ cup pizza sauce

½ cup (2 ounces) shredded or grated Parmesan cheese

¼ cup chopped fresh basil

1. Preheat broiler. Heat oil in large nonstick skil-

let over medium-high heat. Add bell pepper; stir-fry 1 minute. Add mushrooms, zucchini and garlic; stir-fry 4 minutes or until vegetables are crisp-tender. Stir in black pepper; remove from heat.

2. Use small knife to cut around edges of pita breads and split each into two rounds. Place pita rounds on baking sheet. Broil 4 to 5 inches from heat source 1 minute or until lightly toasted. Turn pitas; top with pizza sauce, cheese and vegetables. Return to broiler; broil 3 minutes or until cheese is melted. Top with basil.

Take Note!

Zucchini should have a bright color and be heavy for their size as well as free of cuts and any soft spots. Small zucchini are more tender because they were harvested when young. Zucchini should be rinsed well before using, but peeling is not necessary.



Onion and Shrimp Flatbread Pizza with Goat Cheese

MAKES 6 SERVINGS (2 PIECES PER SERVING)

Nutrients per Serving:

Calories 281, Total Fat 8g, Saturated Fat 3g, Protein 14g, Carbohydrates 38g, Cholesterol 63mg, Dietary Fiber 2g, Sodium 677mg

Dietary Exchange: 2 Bread/Starch, 1 Fat, 1 Vegetable, 1 Meat

- 4 teaspoons olive oil, divided
- 3 large onions, thinly sliced
- ¼ teaspoon salt
- 1 package (about 14 ounces) refrigerated pizza crust dough
- ½ pound small shrimp, peeled and deveined
- ⅛ cup chopped chives
- 3 ounces goat cheese, crumbled
- ½ teaspoon black pepper (optional)

1. Heat 2 teaspoons oil in large skillet over medium heat. Add onions; cook and stir about 8 minutes. Stir in salt. Reduce heat to medium-low; cook, stirring occasionally, 25 minutes or until onions are soft and caramelized. If onions are cooking too fast, reduce heat to low.

2. Meanwhile, preheat oven to 425°F. Roll out dough on 15x10-inch baking sheet. Bake 8 to 10 minutes or until golden brown. Turn off oven. Spread caramelized onions over crust.

3. Heat remaining 2 teaspoons oil in same skillet over medium heat. Cook and stir shrimp 2 minutes or until pink and opaque. Arrange shrimp over onions on pizza. Sprinkle with chives, goat cheese and pepper, if desired.

4. Place pizza in warm oven 1 to 2 minutes or until cheese is soft. Cut into 12 squares.

Instant Individual Pizza

MAKES 1 SERVING

Nutrients per Serving:

Calories 106, Total Fat 2g, Saturated Fat 1g, Protein 7g, Carbohydrates 13g, Cholesterol 8mg, Dietary Fiber 9g, Sodium 208mg

Dietary Exchange: 1 Bread/Starch, ½ Meat

- 1 (6-inch) whole wheat tortilla
- 1 tablespoon no-salt-added tomato sauce or 2 teaspoons prepared pesto
- ¼ teaspoon dried oregano
- 2 tablespoons shredded reduced-fat Swiss or part-skim mozzarella cheese

1. Preheat oven to 500°F. Place tortilla on baking sheet.

2. Spread tortilla to edges with tomato sauce. Sprinkle with oregano. Top with cheese.

3. Bake 5 minutes or until tortilla is crisp and cheese is bubbly.



Vegetable Pizza Primavera

MAKES 4 SERVINGS

Nutrients per Serving:

Calories 352, Total Fat 9g, Saturated Fat 5g, Protein 17g, Carbohydrates 51g, Cholesterol 27mg, Dietary Fiber 4g, Sodium 425mg

Dietary Exchange: 2 Bread/Starch, 1 Fat, 4 Vegetable, 1 Meat

½ recipe New York-Style Pizza Crust

1½ cups broccoli florets

1 carrot, cut into julienne strips

1 small yellow squash or zucchini, cut into ¼-inch-thick slices

6 thin asparagus spears, cut into 1½-inch pieces

10 fresh pea pods

1 green onion, thinly sliced

¾ cup (3 ounces) shredded Swiss cheese or provolone cheese

⅓ cup slivered fresh basil leaves or 2 tablespoons chopped fresh tarragon leaves

¼ cup (1 ounce) grated Romano cheese

Black pepper

½ teaspoon olive oil

1. Prepare New York-Style Pizza Crust. Move oven rack to lowest position in oven and preheat oven to 500°F.

2. Place steamer basket in large saucepan. Add water to about ¼ inch below rack. Bring water to a boil over high heat. Add broccoli; cover and steam 6 to 8 minutes or until crisp-tender. Transfer broccoli to large bowl of ice water until chilled. Repeat with remaining vegetables except green onion, adding water to saucepan as needed. Steam carrots 3 to 4 minutes, squash 2 minutes, asparagus 3 to 4 minutes, pea pods 1 minute. Drain vegetables and pat dry with paper towels.

3. Sprinkle Swiss cheese over dough, leaving 1-inch border. Bake 3 to 4 minutes or until cheese melts and crust is light golden. Place steamed vegetables and green onion on pizza. Top with basil, Romano cheese and pepper. Bake 4 to 6 minutes or until crust is deep golden and cheese is melted. Brush edge of crust with olive oil.

New York-Style Pizza Crust

⅔ cup warm water (110° to 115°F)

1 teaspoon sugar

1 teaspoon active dry yeast

1¾ cups all-purpose or bread flour

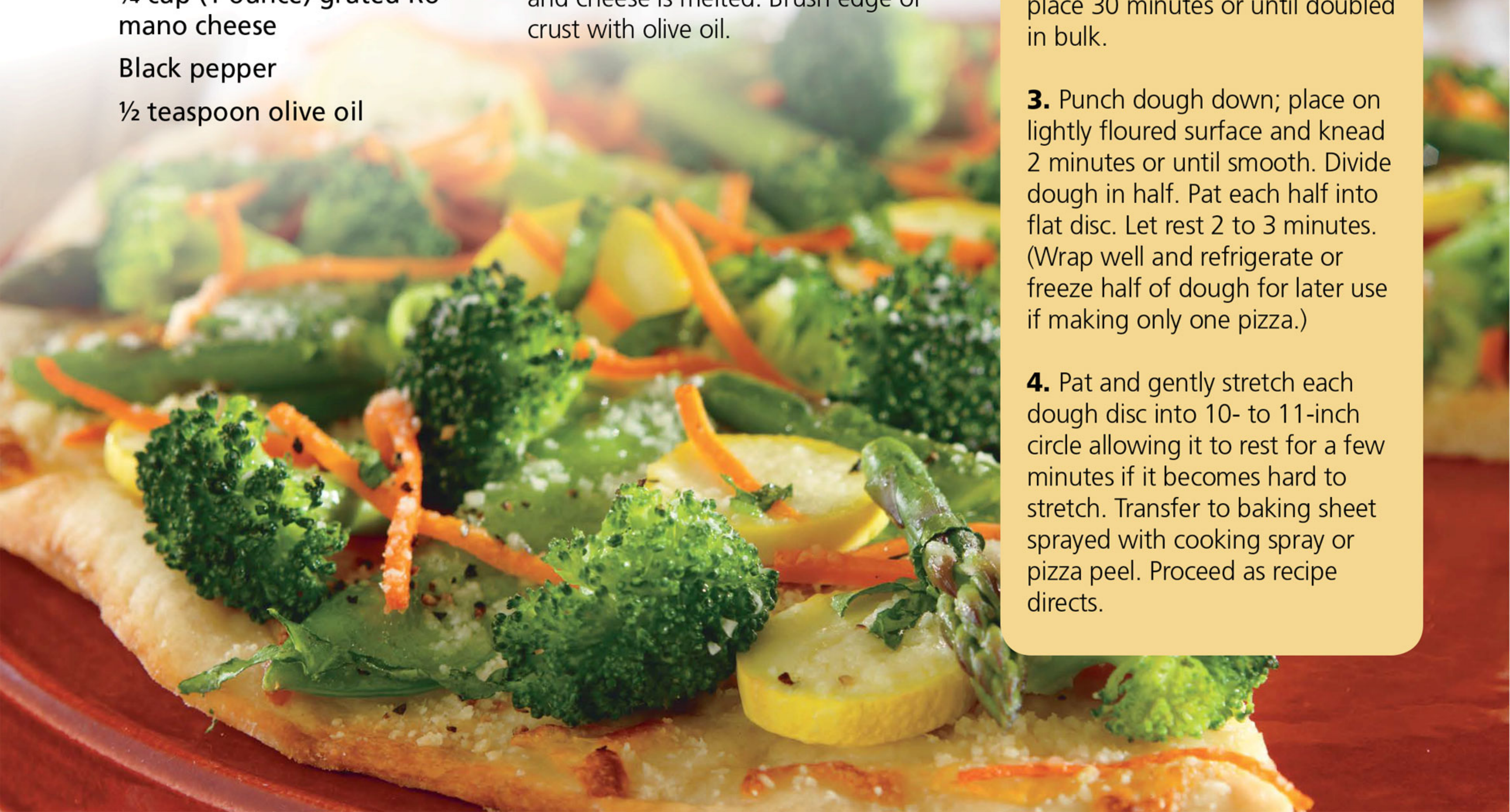
½ teaspoon salt

1. Combine water and sugar in small bowl; stir to dissolve sugar. Sprinkle yeast over water; stir. Let stand 5 to 10 minutes or until foamy.

2. Combine flour and salt in medium bowl. Stir in yeast mixture until soft dough forms. Place dough on lightly floured surface. Knead 5 minutes or until dough is smooth and elastic, adding additional flour, 1 tablespoon at a time, as needed. Place dough in medium bowl coated with non-stick cooking spray. Turn dough in bowl so top is coated with cooking spray; cover with towel or plastic wrap. Let rise in warm place 30 minutes or until doubled in bulk.

3. Punch dough down; place on lightly floured surface and knead 2 minutes or until smooth. Divide dough in half. Pat each half into flat disc. Let rest 2 to 3 minutes. (Wrap well and refrigerate or freeze half of dough for later use if making only one pizza.)

4. Pat and gently stretch each dough disc into 10- to 11-inch circle allowing it to rest for a few minutes if it becomes hard to stretch. Transfer to baking sheet sprayed with cooking spray or pizza peel. Proceed as recipe directs.



Wild Mushroom Flatbread

MAKES 16 PIECES (ABOUT 8 SERVINGS)

Nutrients per Serving:

Calories 184, Total Fat 8g, Saturated Fat 3g, Protein 8g, Carbohydrates 25g, Cholesterol 12mg, Dietary Fiber 1g, Sodium 537mg

Dietary Exchange: 1½ Bread/Starch, 1 Fat, ½ Meat

- 1 package (13.8 ounces) refrigerated pizza dough
- 2 teaspoons olive oil
- 1 package (4 ounces) sliced cremini mushrooms
- 1 package (4 ounces) sliced shiitake mushrooms
- 1 shallot, thinly sliced
- 2 cloves garlic, minced
- ½ teaspoon salt
- ¾ cup (3 ounces) grated Gruyère cheese
- 2 teaspoons chopped fresh thyme

1. Preheat oven to 400°F. Line baking sheet with parchment paper. Spray with nonstick cooking spray.

2. Roll out pizza dough on lightly floured surface to 15X10-inch rectangle. Place on prepared baking sheet. Bake 10 minutes.

3. Meanwhile, heat oil in large nonstick skillet over medium-high heat. Add cremini and shiitake mushrooms; cook and stir 5 minutes. Add shallot and garlic; cook and stir 5 minutes or until tender. Season with salt.

4. Arrange mushroom mixture evenly over prepared pizza crust. Top evenly with cheese and thyme.

5. Bake 8 minutes or until cheese is melted. To serve, cut into 16 pieces.



Bell Pepper and Ricotta Calzones

MAKES 6 SERVINGS

Nutrients per Serving:

Calories 247, Total Fat 6g, Saturated Fat 1g, Protein 9g, Carbohydrates 41g, Cholesterol 4mg, Dietary Fiber 3g, Sodium 532mg

Dietary Exchange: 2 Bread/Starch, 1 Fat, 2 Vegetable

- 2 teaspoons olive oil
- 1 medium red bell pepper, diced
- 1 medium green bell pepper, diced
- 1 small onion, diced
- ½ teaspoon Italian seasoning
- ⅛ teaspoon black pepper
- 1 clove garlic, minced
- 1¼ cups low-fat marinara sauce, divided
- ¼ cup part-skim ricotta cheese
- ⅛ cup reduced-fat mozzarella cheese

1 package (13.8 ounces) refrigerated pizza crust

1. Preheat oven to 375°F.

2. Heat oil in medium nonstick skillet over medium heat. Add bell peppers,

onion, Italian seasoning and black pepper. Cook, stirring occasionally, until vegetables are tender, about 8 minutes. Add garlic, and cook, stirring constantly, 1 minute. Stir in ½ cup marinara sauce and cook until thickened slightly, about 2 minutes. Transfer vegetable mixture to plate and let cool slightly.

3. Mix ricotta cheese with mozzarella cheese; set aside. Coat large rimmed baking pan with nonstick cooking spray. Unroll dough and cut into 6 (4X4-inch) squares. Pat each square into 5X5-inch square. Spoon ⅓ cup vegetable mixture into center of each square. Top vegetables with 1 tablespoon cheese mixture. Fold dough over filling to form triangle; pinch and fold edges together to seal. Use spatula to transfer calzones onto baking pan.

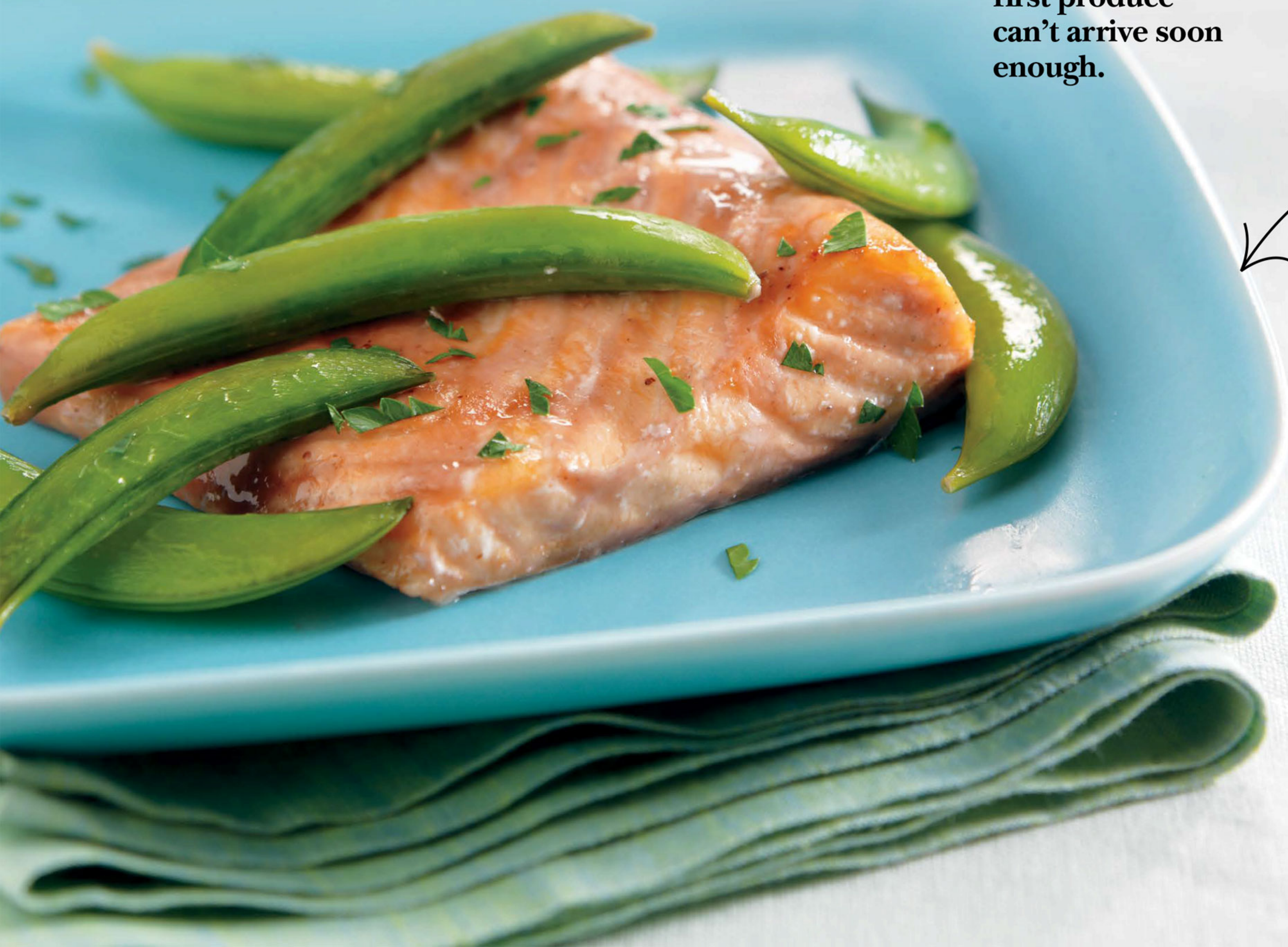
4. Bake 15 to 18 minutes or until calzones are lightly browned. Cool 5 minutes. Serve with remaining marinara sauce.



THINK
SPRING

After the Thaw

AFTER A LONG, brutal winter, springtime is cause for celebration. After slogging through months of root vegetables, hardy squashes and winter greens, our bodies are ready for something fresh, bright and green. And Mother Nature knows how to deliver. From crisp-tender asparagus to baby spinach to delicate spring peas, spring's first produce can't arrive soon enough.



Roasted Salmon with Sugar Snap Peas



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 190, Total Fat 5g, Saturated Fat 1g, Protein 30g, Carbohydrates 5g, Cholesterol 74mg, Dietary Fiber 2g, Sodium 582mg

Dietary Exchange: 1 Vegetable, 4 Meat

- 4 thin salmon fillets
(about 5 to 6 ounces each)
- 5 tablespoons reduced-fat or fat-free raspberry vinaigrette, divided
- ½ teaspoon salt
- ¼ teaspoon black pepper
- 2 cups fresh sugar snap peas or frozen sugar snap peas, thawed
- 2 tablespoons chopped fresh basil or parsley

1. Preheat oven to 400°F. Spray 13X9-inch baking dish with nonstick cooking spray. Arrange salmon skin sides down in prepared dish. Drizzle 3 tablespoons vinaigrette over salmon; sprinkle with salt and pepper.

2. Combine peas and remaining 2 tablespoons vinaigrette in medium bowl; spoon over salmon. Bake 12 to 14 minutes or until salmon is opaque in center and peas are crisp-tender. Sprinkle with basil.

Spring Vegetable Ragoût



MAKES 6 SERVINGS

Nutrients per Serving:

Calories 156, Total Fat 5g, Saturated Fat 1g, Protein 7g, Carbohydrates 25g, Cholesterol 0mg, Dietary Fiber 5g, Sodium 111mg

Dietary Exchange: 1 Bread/Starch, 1 Fat, 1 Vegetable

- 1 tablespoon olive oil
- 2 leeks, thinly sliced
- 3 cloves garlic, minced
- 1 package (10 ounces) frozen corn
- 1 cup vegetable broth
- 8 ounces yellow squash, halved lengthwise and cut into ½-inch pieces (about 1¼ cups)
- 6 ounces frozen shelled edamame
- 1 small package (4 ounces) shredded carrots

3 cups small cherry tomatoes, halved

1 teaspoon dried tarragon

1 teaspoon dried basil

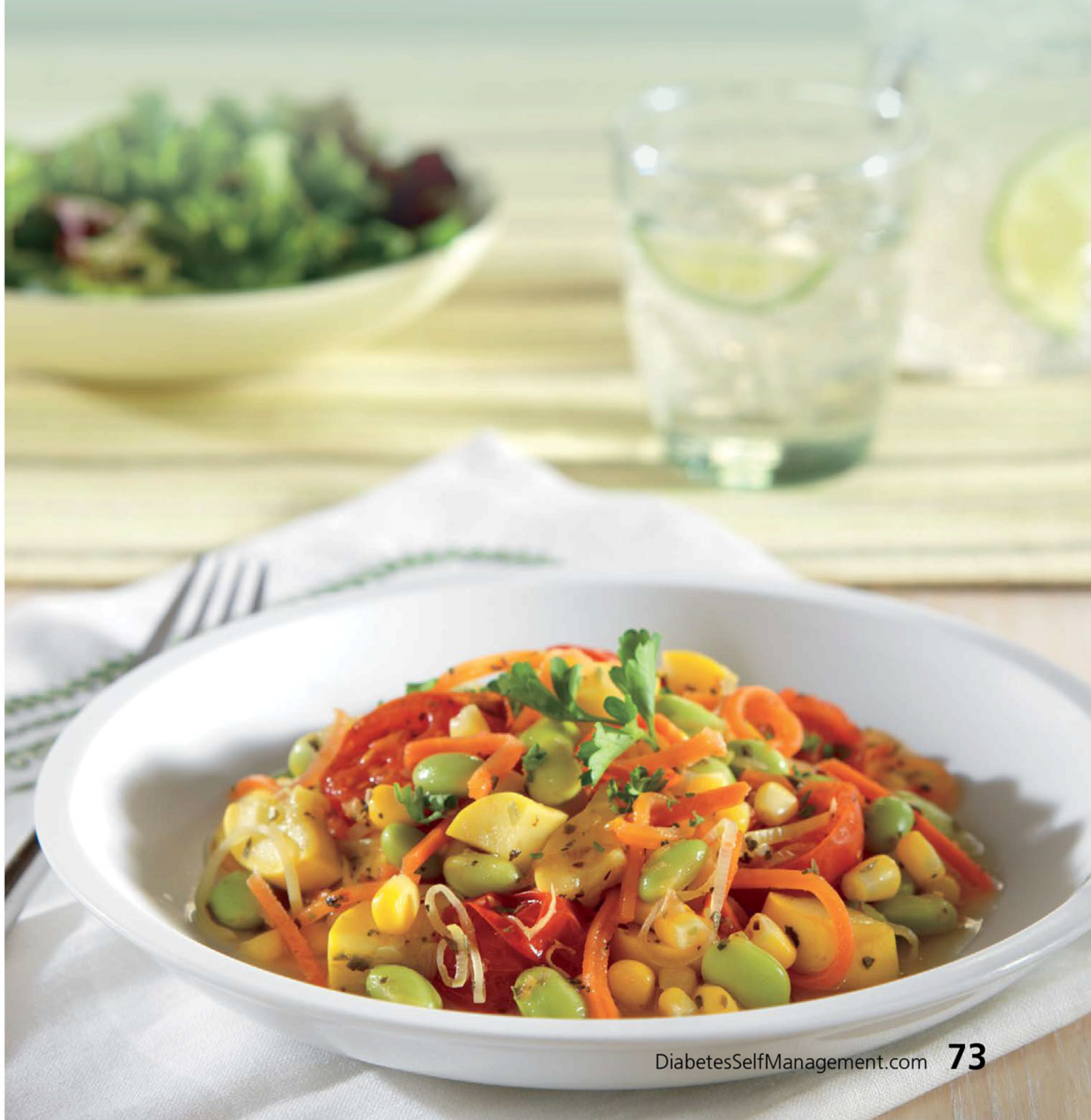
1 teaspoon dried oregano

Salt and black pepper (optional)

Minced fresh parsley (optional)

1. Heat oil in large skillet over medium heat. Add leeks and garlic; cook and stir just until fragrant. Add corn, broth, squash, edamame and carrots; cook and stir about 5 minutes or until squash is tender.

2. Stir in tomatoes, tarragon, basil and oregano. Reduce heat to low; cover and simmer 2 minutes or until tomatoes are soft. Season with salt and pepper, if desired. Garnish with parsley.



Penne with Spring Vegetables



MAKES 8 SERVINGS

Nutrients per Serving:

Calories 253, Total Fat 9g, Saturated Fat 1g, Protein 8g, Carbohydrates 37g, Cholesterol 0mg, Dietary Fiber 6g, Sodium 285mg

Dietary Exchange: 2 Bread/Starch, 2 Fat, 1 Vegetable

- 1/4 cup olive oil
- 1/2 cup chopped onion
- 2 cloves garlic, minced
- 1 pound asparagus, cut into 1-inch pieces
- 2 1/2 cups halved cherry tomatoes (12 ounces)
- 2 cups diced yellow squash
- 3/4 cup fat-free reduced-sodium chicken broth
- 1/4 teaspoon salt
- 1/4 teaspoon black pepper
- 6 cups cooked whole wheat or multigrain penne

1 1/2 cups low-sodium marinara sauce

6 fresh basil leaves, cut into thin strips

1/4 cup grated or shredded Parmesan cheese (optional)

1. Heat oil in large saucepan over medium heat. Add onion and garlic; cook 3 minutes, stirring constantly. Add asparagus; cook and stir 4 minutes. Add tomatoes and squash; cook and stir 3 minutes or until tomatoes are softened. Add broth; reduce heat. Simmer 6 minutes or until asparagus is tender. Season with salt and pepper.

2. Add penne, sauce and basil to tomato mixture; toss to combine. Top with cheese, if desired.

Spring Tuna Casserole



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 292, Total Fat 8g, Saturated Fat 2g, Protein 26g, Carbohydrates 29g, Cholesterol 35mg, Dietary Fiber 5g, Sodium 450mg

Dietary Exchange: 2 Bread/Starch, 3 Meat

- 12 ounces raw tuna steaks (1 inch thick)
- 1 clove garlic, smashed
- 1 lemon wedge
- 1 teaspoon canola oil
- 1 1/2 teaspoons margarine
- 1 small red onion, chopped
- 1 1/2 tablespoons all-purpose flour
- 1 cup fat-free half-and-half
- 1/2 teaspoon salt
- 1/4 teaspoon black pepper
- 1/8 teaspoon dried thyme
- 1 teaspoon minced fresh dill
- 1 cup cooked green peas
- 1 cup cooked whole wheat penne pasta
- 1 1/2 tablespoons bread crumbs

1. Preheat oven to 350°F. Rub tuna steaks with garlic and lemon wedge; let stand 15 minutes. Heat large heavy skillet over medium-high heat. Brush tuna with oil; sear 4 minutes per side (tuna will be pink in the center). Cut into 1/2-inch pieces. Set aside.

2. Melt margarine in same skillet. Add onion; cook and stir over medium-high heat 5 minutes. Stir in flour. Gradually add half-and-half, scraping up browned bits in skillet. Stir in salt, pepper, thyme and dill. Add tuna, peas and pasta. Spoon into greased 1 1/2-quart baking dish. Sprinkle with bread crumbs. Bake 20 minutes or until heated through.





Asparagus and Scallion Omelet With Tortilla Wedges

MAKES 2 SERVINGS

Nutrients per Serving:

Calories 152, Total Fat 4g, Saturated Fat 1g, Protein 15g, Carbohydrates 14g, Cholesterol 1mg, Dietary Fiber 2g, Sodium 449mg

Dietary Exchange: 1 Bread/Starch, 2 Meat

8 ounces small asparagus spears, ends cut off

¼ teaspoon black pepper, divided

1 teaspoon olive oil

5 large egg whites

⅛ teaspoon salt

⅛ teaspoon chipotle chili powder

2 tablespoons minced scallions

¼ cup shredded Parmesan cheese

1 (8-inch) whole wheat tortilla, heated and cut into wedges

1. Preheat oven to 425°F. Place asparagus on baking sheet. Season with ⅛ teaspoon pepper and brush with oil. Roast 15 minutes,

or until asparagus are golden brown and tender, shaking baking sheet occasionally. Remove and keep warm.

2. Beat egg whites together until foamy in large bowl. Mix in remaining ⅛ teaspoon pepper, salt, chili powder, scallions and cheese.

3. Coat large skillet with nonstick cooking spray. Pour in egg white mixture. Cook over medium-high heat until edges of omelet are firm and lightly browned. Lift omelet at edges to allow uncooked mixture to pour to the bottom. Continue to cook until egg whites are firm and dry. Cut omelet in half and arrange each half on a plate. Top each with half of asparagus. Divide tortilla wedges between two plates.

Take Note!

Who says omelets are only for breakfast? This vegetarian meal is hearty enough for breakfast, lunch, or dinner. You can also substitute 1 whole wheat pita bread, cut in half, for the tortilla in this recipe.

Couscous

MAKES 2 (1⅓-CUP) SERVINGS

Nutrients per Serving:

Calories 223, Total Fat 4g, Saturated Fat 2g, Protein 14g, Carbohydrates 38g, Cholesterol 9mg, Dietary Fiber 8g, Sodium 363mg

Dietary Exchange: 2 Diabetic Carb Count, 2 Bread/Starch

1 shallot, minced or ¼ cup minced red onion

8 medium spears fresh asparagus, cooked and cut into 1-inch pieces

1 cup frozen peas

1 cup halved grape tomatoes

½ cup water

⅛ teaspoon salt

⅛ teaspoon black pepper

6 tablespoons uncooked whole wheat couscous

¼ cup grated Parmesan cheese

1. Spray large skillet with nonstick cooking spray; heat over medium heat. Add shallot; cook 3 minutes or until tender. Add asparagus and peas; cook 2 minutes or until peas are heated through. Add tomatoes; cook 2 minutes or until softened. Add water, salt and pepper; bring to a boil.

2. Stir in couscous. Reduce heat to low. Cover and simmer 2 minutes or until liquid is absorbed. Fluff with fork. Stir in cheese just before serving.



Springtime Panzanella

NUTRIENTS PER SERVING:

Calories 173, Total Fat 12g, Saturated Fat 2g, Protein 5g, Carbohydrates 13g, Cholesterol 2mg, Dietary Fiber 3g, Sodium 722mg

Dietary Exchange: ½ Bread/Starch, 2 Fat, 2 Vegetable

3 tablespoons olive oil, divided

2 cloves garlic, minced and divided

3 slices whole wheat bread, cut into 1-inch cubes

1 teaspoon salt, divided

1 pound asparagus, cut into 1-inch pieces

¼ cup chopped carrot

½ cup finely chopped red onion

2 tablespoons white wine vinegar

1 tablespoon lemon juice

½ teaspoon deli-style mustard

2 tablespoon shredded parmesan cheese

1. Preheat oven to 425°F. Spray 2 baking sheets with nonstick cooking spray.

2. Combine 1 tablespoon oil and 1 clove garlic in large bowl; mix well. Add bread cubes; toss to coat evenly. Spread in single layer on baking sheet.

3. Combine 1 tablespoon oil, remaining 1 clove garlic and ½ teaspoon salt in same bowl. Add asparagus and carrot; toss to coat evenly. Spread on separate baking sheet.

4. Bake bread cubes and vegetables 15 minutes, stirring once. Let stand 5 to 10 minutes to cool slightly.

5. Meanwhile, combine onion, vinegar, remaining 1 tablespoon oil, lemon juice, mustard and remaining ½ teaspoon salt in small bowl; mix well. Add bread cubes and vegetables; gently toss to coat evenly. Top with cheese just before serving.



Chicken with Spinach and Artichokes



MAKES 2 SERVINGS

Nutrients per Serving:

Calories 328, Total Fat 11g, Saturated Fat 4g, Protein 37g, Carbohydrates 19g, Cholesterol 89mg, Dietary Fiber 8g, Sodium 797mg

Dietary Exchange: ½ Bread/Starch, 2 Vegetable, 4 Meat

1 cup frozen chopped spinach, thawed and well drained

4 canned artichoke hearts, drained and chopped

¼ cup plus 2 tablespoons grated Parmesan cheese, divided

¼ cup frozen chopped onions, thawed and well drained

¼ cup fat-free mayonnaise

½ teaspoon minced garlic

⅛ teaspoon black pepper

1 cup chopped cooked chicken pieces

1. Preheat oven to 375°F. Coat 1-quart casserole with nonstick cooking spray.

2. Combine spinach, artichoke hearts, 2 tablespoons cheese, onions, mayonnaise, garlic and pepper in medium bowl. Place chicken in prepared casserole; top evenly with spinach mixture. Top with remaining ¼ cup cheese.

3. Bake 30 minutes or until cheese is browned.

Take Note!

This dish is gluten free and nut free. To make this dish egg free, substitute vegan mayonnaise for regular.



Spinach Parmesan Risotto

MAKES 6 SERVINGS ½ CUP RISOTTO

Nutrients per Serving:

Calories 179, Total Fat 3g, Saturated Fat 2g, Protein 7g, Carbohydrates 30g, Cholesterol 7mg, Dietary Fiber 1g, Sodium 198mg

Dietary Exchange: 2 Bread/Starch, ½ Meat

3⅔ cups reduced-sodium chicken broth

½ teaspoon white pepper

1 cup uncooked arborio rice

1½ cups chopped fresh spinach

½ cup fresh or frozen peas

1 tablespoon minced fresh dill or 1 teaspoon dried dill weed

½ cup grated Parmesan cheese

1 teaspoon grated lemon peel

1. Combine broth and pepper in medium saucepan; bring to a boil over medium-high heat. Reduce heat and keep broth simmering.

2. Spray large saucepan with nonstick cooking

spray; heat over medium-low heat. Add rice; cook and stir 1 minute. Stir ⅔ cup hot broth into saucepan; cook, stirring constantly, until broth is absorbed.

3. Stir in remaining hot broth, ½ cup at a time, stirring frequently until broth is absorbed before adding next ½ cup. When last ½ cup broth is added, stir in spinach, peas and dill. Cook, stirring gently, until all broth is absorbed and rice is just tender but still firm. (Total cooking time is about 20 minutes.)

4. Remove from heat; stir in cheese and lemon peel.

Take Note!

Arborio rice, an Italian-grown short-grain rice, has large, plump grains with a delicious nutty taste. It is traditionally used for risotto dishes because its high starch content produces a creamy texture.



Spring Greens with Raspberry Vinaigrette and Goat Cheese

MAKES 4 SERVINGS

Nutrients per Serving:

Calories 144, Total Fat 8g, Saturated Fat 3g, Protein 4g, Carbohydrates 16g, Cholesterol 11mg, Dietary Fiber 2g, Sodium 154mg

Dietary Exchange: 1½ Fat, 2 Vegetable

¼ cup raspberry vinegar

1 tablespoon dark sesame oil

1 tablespoon sucralose-based sugar substitute

¼ teaspoon ground allspice

⅛ teaspoon red pepper flakes

⅛ teaspoon salt

4 cups packed spring greens (about 4 ounces)

½ medium pear, unpeeled, sliced (about 3 ounces)

½ cup red onion, thinly sliced (about 1 ounce)

¼ cup dried, sweetened cherries

2 ounces goat cheese, crumbled

1. Combine vinegar, oil, sugar substitute, allspice, pepper flakes and salt in jar. Secure lid. Shake to blend.

2. Arrange greens, pear, onion and cherries on four salad plates. Top with equal amounts dressing and cheese.

Fast, Easy, Delicious

THERE ARE DAYS when we get home after 9 pm. There are days when our schedules are booked from waking to bedtime. And let's be honest: There are days when we just plain don't feel like cooking. These recipes are for *those* days, when dinner needs to get on the table as quickly as humanly possible. With short ingredient lists, minimal prep and reasonably short cook times, these recipes help save your sanity.



Bacon and Kale Frittata

MAKES 6 SERVINGS

Nutrients per Serving:

Calories 120, Total Fat 6g, Saturated Fat 3g, Protein 13g, Carbohydrates 5g, Cholesterol 25mg, Dietary Fiber 1g, Sodium 320mg

Dietary Exchange: ½ Fat, 1 Vegetable, 1½ Meat

- 1 small onion, chopped
- 3 slices turkey bacon, chopped
- 4 cups coarsely chopped kale leaves
- 2 cloves garlic, minced
- 2 cups cholesterol-free egg substitute
- ¼ teaspoon ground black pepper
- ¼ teaspoon salt (optional)
- 1 container (4 ounces) crumbled goat cheese

1. Spray large ovenproof skillet with nonstick cooking spray; heat over medium heat. Add onion and bacon; cook and stir 6 to 8 minutes or until onion is light golden.
2. Add kale and garlic; cook 3 to 5 minutes or until kale is wilted. Evenly spread mixture to cover bottom of skillet.
3. Whisk egg substitute, pepper and salt, if desired, in small bowl until well blended. Pour evenly over kale mixture; sprinkle evenly with cheese. Cover and cook 6 to 7 minutes or until almost set.
4. Preheat broiler. Uncover skillet; broil 2 to 3 minutes or until golden brown and set. Let stand 5 minutes before cutting into 6 wedges.

Stir-Fried Beef & Spinach

MAKES 2 SERVINGS

Nutrients per Serving:

Calories 196, Total Fat 7g, Saturated Fat 2g, Protein 28g, Carbohydrates 6g, Cholesterol 69mg, Dietary Fiber 8g, Sodium 799mg

Dietary Exchange: 1 Vegetable, 3 Meat

- 1 package (6 ounces) fresh spinach, stemmed and torn
- ⅛ teaspoon salt
- ½ pound boneless beef top sirloin steak, thinly sliced
- ¼ cup stir-fry sauce
- 1 teaspoon sugar
- ½ teaspoon curry powder
- ¼ teaspoon ground ginger

1. Coat large skillet or wok with nonstick cooking spray. Heat over high heat until hot. Add spinach; stir-fry 1 minute or until limp.

2. Remove skillet from heat. Transfer spinach to serving platter, sprinkle with salt and cover to keep warm.
3. Wipe out skillet with paper towel. Coat skillet with cooking spray. Heat over high heat until hot. Add beef; stir-fry 2 minutes or until barely pink. Add sauce, sugar, curry powder and ginger; cook and stir 1½ minutes or until sauce thickens.
4. Spoon beef mixture over spinach.



Skillet Fish with Lemon Tarragon “Butter”



MAKES 2 SERVINGS

Nutrients per Serving:

Calories 125, Total Fat 3g, Saturated Fat 1g, Protein 22g, Carbohydrates 1g, Cholesterol 60mg, Dietary Fiber 1g, Sodium 291mg

Dietary Exchange: 3 Meat

- 2 teaspoons reduced-fat margarine
- 4 teaspoons lemon juice, divided
- ½ teaspoon grated lemon peel
- ¼ teaspoon prepared mustard
- ¼ teaspoon dried tarragon leaves
- ⅛ teaspoon salt
- 2 lean white fish fillets (4 ounces each), rinsed and patted dry
- ¼ teaspoon paprika

1. Combine margarine, 2 teaspoons lemon juice, lemon peel, mustard, tarragon and salt in small bowl. Blend well with fork; set aside.

2. Coat 12-inch nonstick skillet with nonstick cooking spray. Heat over medium heat until hot.

3. Drizzle fillets with remaining 2 teaspoons lemon juice. Sprinkle one side of each fillet with paprika. Place fillets in skillet, paprika side down; cook 3 minutes. Gently turn and cook 3 minutes longer or until opaque in center and flakes easily when tested with fork. Place fillets on serving plates; top with margarine mixture.

Take Note!

Cod, orange roughy, flounder, haddock, halibut and sole can all be used in this recipe.



Sweet and Savory Turkey Cutlets

MAKES 4 SERVINGS

Nutrients per Serving:

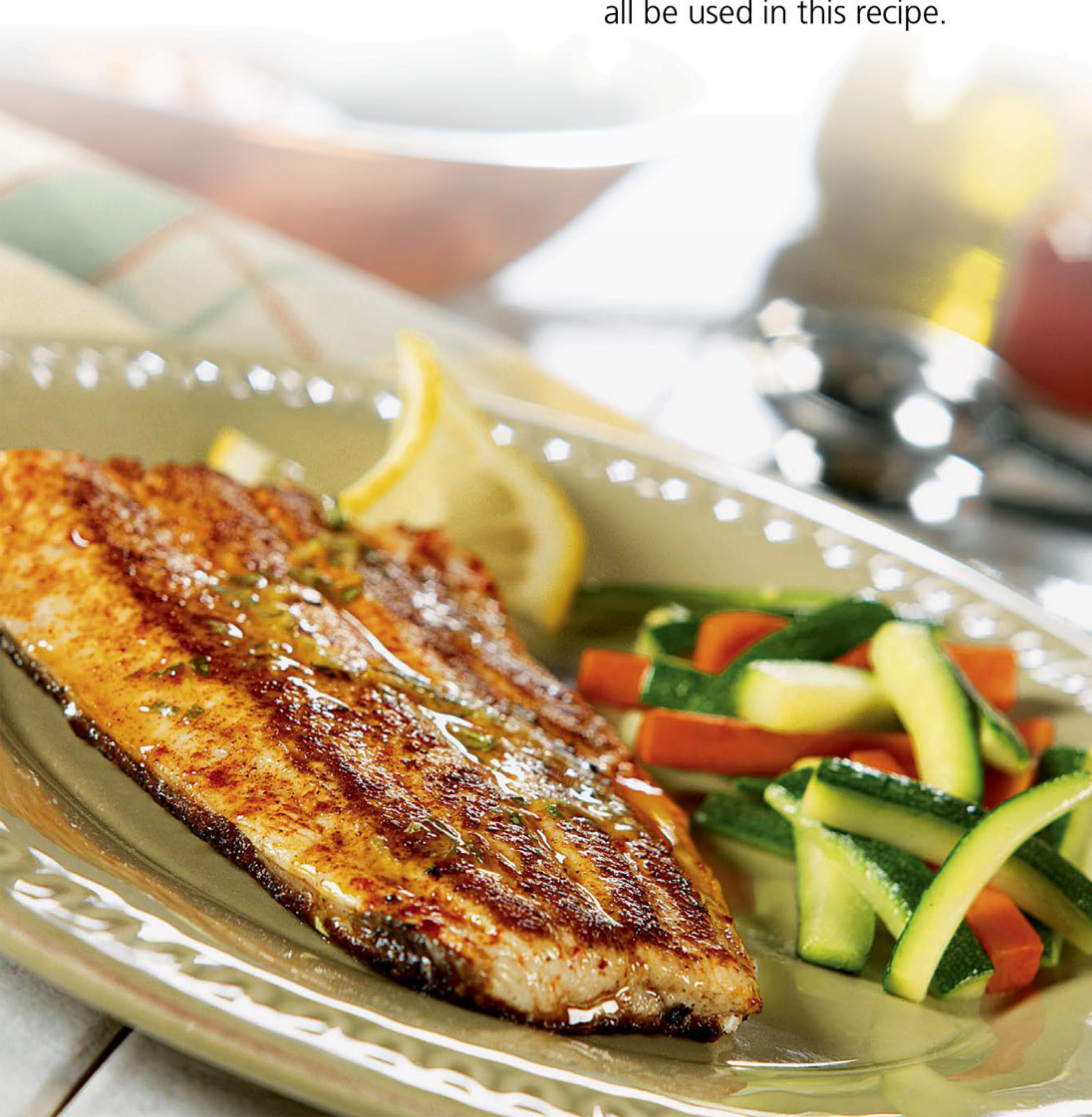
Calories 251, Total Fat 5g, Saturated Fat 1g, Protein 30g, Carbohydrates 23g, Cholesterol 70mg, Dietary Fiber 3g, Sodium 338mg

Dietary Exchange: 3 Vegetable, 3½ Meat

- 3 teaspoons olive oil, divided
- 4 turkey breast cutlets (about ¼ pound each)
- ¼ to ½ teaspoon dried thyme
- ½ teaspoon salt
- ½ teaspoon black pepper, divided
- 1 small onion, diced
- 1 clove garlic, minced
- 1 cup fat-free reduced-sodium chicken broth
- ¾ cup dried mixed fruit bits
- 4 pimiento-stuffed green olives, cut in half lengthwise and thinly sliced

1. Heat 2 teaspoons olive oil in large nonstick skillet over medium-high heat. Sprinkle turkey with thyme, salt and ¼ teaspoon pepper. Add turkey to skillet; cook over medium-high heat, turning once, 6 to 8 minutes or until cooked through. Remove to plate; cover to keep warm.

2. Add remaining 1 teaspoon oil to now-empty skillet. Add onion; cook, stirring frequently, over medium-high heat 3 minutes or until softened. Add garlic; cook 1 minute. Add broth, fruit bits and olives and remaining ¼ teaspoon pepper. Cook about 4 minutes or until most liquid is absorbed. Serve with turkey.



Oriental Vegetables and Ham



MAKES 4 SERVINGS
(1½ CUPS PER SERVING)

Nutrients per Serving:

Calories 189, Total Fat 2g, Saturated Fat 1g, Protein 11g, Carbohydrates 29g, Cholesterol 14mg, Dietary Fiber 3g, Sodium 630mg

Dietary Exchange: 2 Bread/Starch, 1 Meat

2 cups fat-free, reduced-sodium chicken broth

1 package (16 ounces) frozen stir-fry vegetables

1 teaspoon sesame oil

4 ounces extra-lean thinly sliced ham, cut into ½-inch squares

2 cups uncooked instant white long grain rice

Light soy sauce (optional)

Place broth, vegetables and sesame oil in large saucepan; bring to full boil over high heat. Remove from heat; stir in ham and rice. Cover and let stand 5 minutes. Serve with soy sauce, if desired.

Take Note!

You can substitute ¾ pound cooked chicken for the ham.

Rosemary-Lemon Pork Kabobs

MAKES 4 SERVINGS SERVING SIZE:
1 KABOB

Nutrients per Serving:

Calories 212, Total Fat 7g, Saturated Fat 2g, Protein 25g, Carbohydrates 11g, Cholesterol 73mg, Dietary Fiber 1g, Sodium 338mg

Dietary Exchange: 2 Vegetable, 3 Meat

4 small red potatoes, quartered

1 pork tenderloin (about 1 pound), cut into 16 (1-inch) cubes

1 small onion (about 2 ounces), quartered and layers separated

½ teaspoon dried rosemary

Dash paprika

2 tablespoons lemon juice

1 tablespoon olive oil

1 teaspoon grated lemon peel

½ clove garlic, minced

½ teaspoon salt

⅛ teaspoon black pepper

1. Preheat broiler.

2. Steam potatoes 6 minutes or until crisp-tender. Rinse under cold water; dry with paper towels.

3. Thread potatoes onto 4 (10-inch) metal skewers, alternating with pork and onion. Spray lightly with nonstick cooking spray; sprinkle with rosemary and paprika.

4. Place kabobs on baking sheet; broil 4 minutes. Turn over; broil 4 minutes more or until pork is barely pink in center.

5. Meanwhile, combine remaining ingredients in small bowl. Spoon lemon mixture evenly over kabobs.



Lemon Shrimp with Black Beans and Rice



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 306, Total Fat 8g, Saturated Fat 1g, Protein 28g, Carbohydrates 33g, Cholesterol 172mg, Dietary Fiber 4g, Sodium 371mg

Dietary Exchange: 2 Bread/Starch, 3 Meat

1 cup uncooked instant brown rice

1/8 teaspoon ground turmeric

1 pound raw shrimp, peeled and deveined (with tails on)

1 1/2 teaspoons chili powder

1/2 (15-ounce) can reduced-sodium black beans, rinsed and drained

1 medium poblano pepper **or** 1/2 green bell pepper, minced

1 1/2 to 2 teaspoons grated lemon peel

3 tablespoons lemon juice

1 1/2 tablespoons extra-virgin olive oil

1/8 teaspoon salt

Lemon wedges (optional)

1. Cook rice with turmeric according to package directions, omitting salt and fat.

2. Spray large nonstick skillet with nonstick cooking spray; heat over medium heat. Add shrimp and chili powder; cook and stir 4 minutes or until shrimp are pink and opaque. Add beans, pepper, lemon peel, lemon juice, oil and salt; cook and stir 1 minute or until heated through.

3. Spoon shrimp mixture over rice. Garnish with lemon wedges.

Swiss & Greens Chicken Roll-Up



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 231, Total Fat 8g, Saturated Fat 5g, Protein 25g, Carbohydrates 14g, Cholesterol 58mg, Dietary Fiber 4g, Sodium 161mg

Dietary Exchange: 3 Vegetable, 3 Meat

4 boneless skinless chicken tenders (approximately 2 ounces each)

4 slices (1 ounce each) reduced-fat Swiss cheese

2 cups raw ready-to-use baby spinach

4 medium red bell peppers, cored and sliced into matchsticks

2 cups raw ready-to-use shredded carrots

1/2 teaspoon ready-to-use chopped garlic

Black pepper (optional)

1. Preheat an indoor covered grill per instructions. Place chicken between 2 sheets of plastic wrap. Pound with a rolling pin until all pieces are approximately 1/8-inch thick.

2. Remove top piece of plastic wrap. Top each chicken piece with 1 slice cheese and 1/2 cup baby spinach. Roll chicken up tightly; discard plastic wrap. Place roll-ups on grill. Cover and cook for 10 minutes.

3. Meanwhile, mix red bell peppers, carrots and garlic in large microwave-safe mixing bowl. Cover; microwave on HIGH 5 minutes.

4. Place 1 1/4 cups red pepper mixture onto each of 4 plates. Top with chicken roll. Garnish with black pepper, if desired.

Balsamic Chicken and Rice



MAKES 4 SERVINGS (1 PIECE CHICKEN, ½ CUP RICE, AND 1½ TEASPOONS SAUCE PER SERVING)

Nutrients per Serving:

Calories 228, Total Fat 3g, Saturated Fat 1g, Protein 27g, Carbohydrates 21g, Cholesterol 72mg, Dietary Fiber 1g, Sodium 431mg

Dietary Exchange: 1½ Bread/Starch, 3 Meat

- 4 boneless skinless chicken breasts (about 1 pound), flattened to ½-inch thickness
- ¼ cup water
- 2 tablespoons reduced-sodium soy sauce
- 1 tablespoon balsamic vinegar
- 1 teaspoon Worcestershire sauce
- ½ teaspoon sugar
- ¼ teaspoon black pepper
- 2 cups cooked instant brown rice
- ¼ cup finely chopped green onions

1. Coat large nonstick skillet with nonstick cooking spray and heat over medium-high heat until hot. Cook chicken 5 minutes on each side or until no longer pink in center. (Do not clean skillet.)

2. Meanwhile, combine water, soy sauce, vinegar, Worcestershire sauce, sugar and pepper in small bowl; set aside.

3. Place rice on platter, top with chicken and set aside.

4. Add soy sauce mixture to now-empty skillet. Bring to a boil over medium-high heat and boil 2 to 3 minutes or until reduced to 2 tablespoons liquid. Spoon evenly over chicken and sprinkle with onions.

Greek Chicken Burgers with Cucumber Yogurt Sauce



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 260, Total Fat 14g, Saturated Fat 5g, Protein 29g, Carbohydrates 4g, Cholesterol 150mg, Dietary Fiber 1g, Sodium 500mg

1 egg

½ to 1 teaspoon dried oregano

¼ teaspoon black pepper

Fresh mint leaves or mixed baby lettuce (optional)

½ cup plus 2 tablespoons plain nonfat Greek yogurt
½ medium cucumber, peeled, seeded and finely chopped

Juice of ½ lemon

3 cloves garlic, minced, divided

2 teaspoons finely chopped fresh mint **or** ½ teaspoon dried mint

⅛ teaspoon salt

⅛ teaspoon ground white pepper

1 pound ground chicken breast

3 ounces reduced-fat crumbled feta cheese

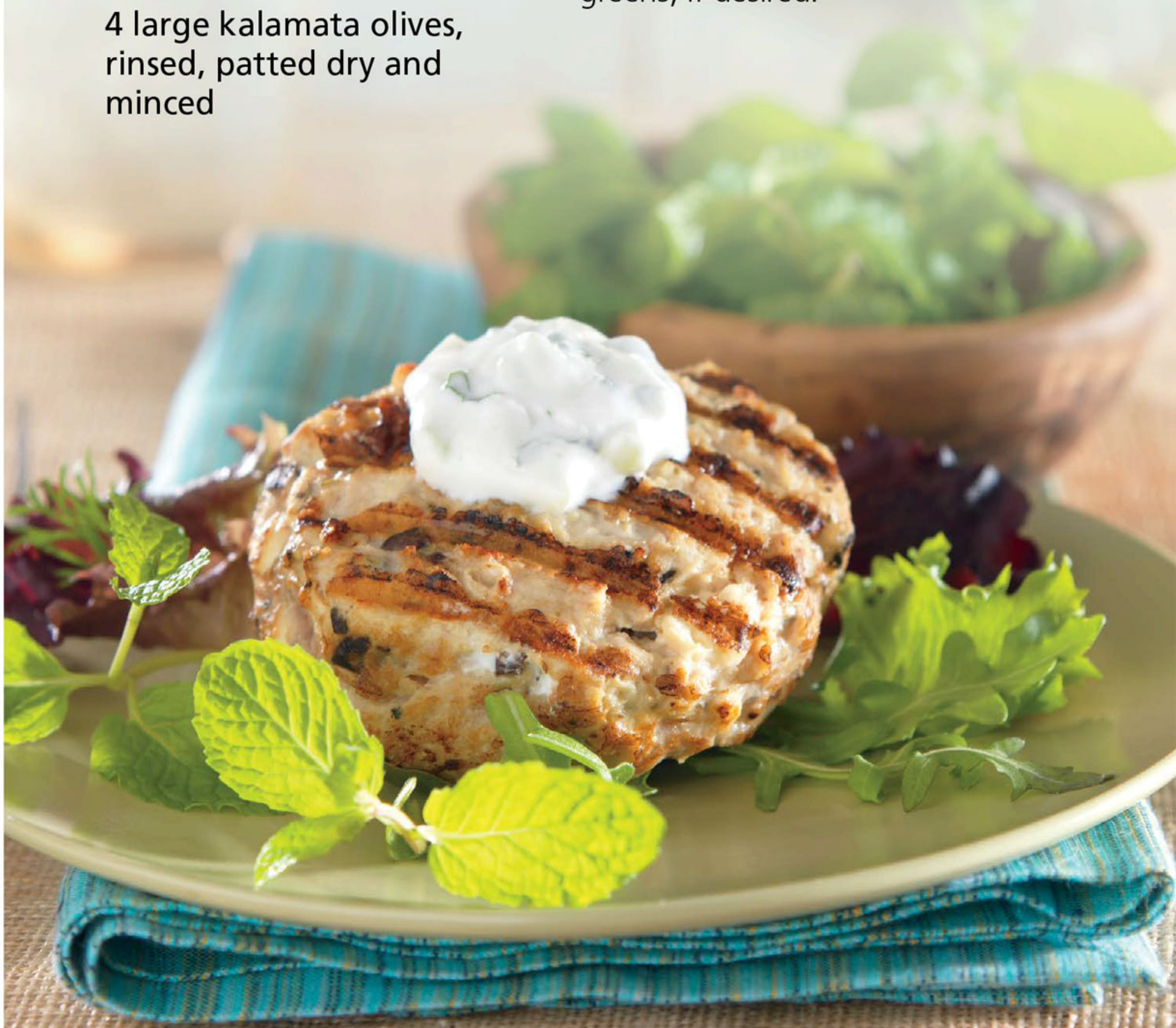
4 large kalamata olives, rinsed, patted dry and minced

1. Combine yogurt, cucumber, lemon juice, 2 cloves garlic, mint, salt and white pepper in medium bowl; mix well. Cover and refrigerate until ready to serve.

2. Combine chicken, cheese, olives, egg, oregano, black pepper and remaining 1 clove garlic in large bowl; mix well. Shape mixture into four patties.

3. Spray grill pan with nonstick cooking spray; heat over medium-high heat. Grill patties 5 to 7 minutes per side or until cooked through (165°F).

4. Serve burgers with sauce; garnish with mint leaves and mixed greens, if desired.



With the Grain

IF YOU'RE GOING to include starches in your meal plan, it's essential to make sure you're choosing the most nutrient-rich ones. Processed grains (such as white flour or white rice) have been stripped of all their nutritional benefits, so they provide little benefit to the diner. Whole grains, on the other hand, can be incredible sources of fiber, iron, protein and other nutrients. These healthy, whole-grain recipes can help you make better choices when including starches in your diet plan.



Sprouts and Bulgur Sandwiches



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 274, Total Fat 9g, Saturated Fat 2g, Protein 12g, Carbohydrates 43g, Cholesterol 3mg, Dietary Fiber 10g, Sodium 439mg

Dietary Exchange: 2 Bread/Starch, 1½ Fat, 1 Vegetable, ½ Milk

- ½ cup bulgur wheat
- 1 cup water
- 1 container (8 ounces) plain low-fat yogurt
- ¼ cup fat-free salad dressing or mayonnaise
- 1½ teaspoons curry powder
- 1 cup shredded carrots
- ½ cup chopped apple
- ⅓ cup coarsely chopped peanuts
- 2 cups fresh bean sprouts
- 8 very thin slices wheat bread, toasted

1. Rinse bulgur under cold running water; drain. Bring water to a boil in small saucepan over high heat. Stir in bulgur. Remove from heat. Let stand, uncovered, 20 minutes. Drain well; squeeze out excess liquid.

2. Combine yogurt, salad dressing and curry powder in medium bowl. Stir in bulgur, carrots, apple and peanuts. Cover and refrigerate.

3. Arrange sprouts on 4 slices wheat toast. Spread with bulgur mixture. Top with remaining bread slices.

Butternut Squash and Millet Soup



MAKES 6 SERVINGS

Nutrients per Serving:

Calories 168, Total Fat 3g, Saturated Fat 1g, Protein 16g, Carbohydrates 19g, Cholesterol 37mg, Dietary Fiber 2g, Sodium 199mg

Dietary Exchange: 1 Bread/Starch, 1 Vegetable, 2 Meat

- 1 red bell pepper
- 1 teaspoon canola oil
- 2¼ cups diced butternut squash or 1 (10-ounce) package frozen diced butternut squash
- 1 medium red onion, chopped
- 1 teaspoon curry powder
- ½ teaspoon smoked paprika
- ½ teaspoon salt
- ⅛ teaspoon black pepper
- 2 cups low-sodium chicken broth
- 2 boneless skinless chicken breasts (about 4 ounces each), cooked and chopped
- 1 cup cooked millet

1. Place bell pepper on rack in broiler pan and roast 3 to 5 inches from broiler element. Alternatively, hold pepper over open gas flame using long-handled metal fork. Turn bell pepper often until blistered and charred on all sides. Transfer to zipper-lock food storage bag; seal bag and let stand 15 to 20 minutes to loosen skin. Remove loosened skin with paring knife. Cut off top and scrape out seeds; discard seeds.

2. Heat oil in large saucepan over high heat. Add butternut squash, onion and bell pepper; cook and stir 5 minutes. Add curry powder, paprika, salt and black pepper. Pour in broth; bring to a boil. Cover and cook 7 to 10 minutes or until vegetables are tender.

3. Purée soup in saucepan with handheld immersion blender or in batches in food processor or blender. Return soup to saucepan. Stir in chicken and millet; cook until heated through.





Barley Beef Stroganoff

MAKES 4 SERVINGS

Nutrients per Serving:

Calories 287, Total Fat 10g, Saturated Fat 4g, Protein 17g, Carbohydrates 34g, Cholesterol 41mg, Dietary Fiber 7g, Sodium 358mg

Dietary Exchange: 2 Bread/Starch, ½ Fat, 2 Meat



2½ cups reduced-sodium vegetable broth or water

⅔ cup uncooked pearl barley (not quick-cooking)

1 package (6 ounces) sliced mushrooms

½ teaspoon dried marjoram

½ teaspoon black pepper

½ pound 95% lean ground beef

½ cup chopped celery

½ cup minced green onions

¼ cup fat-free half-and-half

Minced fresh parsley (optional)

1. Place broth, barley, mushrooms, marjoram and pepper in slow cooker. Cover; cook on LOW 6 to 7 hours.

2. Brown beef 6 to 8 minutes in large skillet over medium-high heat, stirring to break up meat. Drain fat. Add celery and green onions; cook and stir 3 minutes.

3. Stir beef mixture and half-and-half into slow cooker mixture. Cover; cook on HIGH 10 to 15 minutes or until beef is hot and vegetables are tender. Garnish with parsley, if desired.

WHOLE GRAINS

Tabbouleh-Style Amaranth Salad

MAKES 5 TO 6 SERVINGS

Nutrients per Serving:

Calories 244, Total Fat 12g, Saturated Fat 3g, Protein 11g, Carbohydrates 26g, Cholesterol 7mg, Dietary Fiber 4g, Sodium 452mg

Dietary Exchange: 2 Bread/Starch, 2 Fat

4 ounces (¾ cup) reduced-fat feta cheese, crumbled

1. Combine water and amaranth in large saucepan and bring to a boil over high heat. Reduce heat, cover and simmer 20 minutes or until most of the water is absorbed. (It will have a very soft consistency.)

2. Meanwhile, combine remaining ingredients except feta cheese in medium bowl and set aside.

3. Place amaranth in fine-mesh strainer and run under cold water until completely cooled. Shake off excess liquid, add to parsley mixture and toss until well blended. Stir in feta and toss gently.

Take Note!

Amaranth is an ancient whole grain and is very high in protein and fiber. In addition, it's gluten free and a good source of iron and vitamin C. It's important that the amaranth is placed in a fine-mesh strainer in step 3. The grain is so tiny it will slip through a traditional strainer. Strain in 2 or 3 batches if using a small fine-mesh strainer.

2½ cups water

¾ cup dried amaranth

2 cups chopped fresh parsley

8 ounces grape tomatoes, quartered

½ cup diced red onion

3 tablespoons capers, drained (optional)

4 medium cloves garlic, minced

1 ounce (¼ cup) pine nuts, toasted

2 tablespoons apple cider vinegar or red wine vinegar

1 tablespoon extra-virgin olive oil

⅛ teaspoon red pepper flakes (optional)

¼ teaspoon salt



Farro Veggie Burgers

MAKES 6 SERVINGS

Nutrients per Serving:

Calories 287, Total Fat 8g, Saturated Fat 1g, Protein 6g, Carbohydrates 48g, Cholesterol 0mg, Dietary Fiber 6g, Sodium 243mg

Dietary Exchange: 2 Bread/Starch, 1 Fat, 1 Vegetable

- 1½ cups water
- ½ cup pearled farro or spelt
- 2 medium potatoes, peeled and quartered
- 2 to 4 tablespoons canola oil, divided
- ¾ cup finely chopped green onions
- 1 cup grated carrots
- 2 teaspoons grated fresh ginger
- 2 tablespoons ground almonds
- ¼ to ¾ teaspoon salt
- ¼ teaspoon black pepper
- ½ cup panko bread crumbs
- 6 whole wheat hamburger buns
- Ketchup and mustard (optional)

1. Combine water and farro in medium saucepan; bring to a boil over high heat. Reduce heat to low; partially cover and cook 25 to 30 minutes or until farro is tender. Drain and cool. (If using spelt, use

2 cups of water and cook until tender.)

2. Meanwhile, place potatoes in large saucepan; cover with water. Bring to a boil; reduce heat and simmer 20 minutes or until tender. Cool and mash potatoes; set aside.

3. Heat 1 tablespoon oil in medium skillet over medium-high heat. Add green onions; cook and stir 1 minute. Add carrots and ginger; cover and cook 2 to 3 minutes or until carrots are tender. Transfer to large bowl; cool completely.

4. Add mashed potatoes and farro to carrot mixture. Add almonds, salt and pepper; mix well. Shape mixture into six patties. Spread panko on medium plate; coat patties with panko.

5. Heat 1 tablespoon oil in large nonstick skillet over medium heat. Cook patties about 4 minutes per side or until golden brown, adding additional oil as needed. Serve on buns with desired condiments.

Take Note!

Farro is a whole grain and belongs to the wheat family. It's very close to spelt, and it is rich in fiber, magnesium and vitamins A, B, C, and E. It has a nutty flavor and a chewy bite. It can be used in place of rice in many dishes.

Banana Spelt Muffins

MAKES 12 SERVINGS

Nutrients per Serving:

Calories 190, Total Fat 8g, Saturated Fat 1g, Protein 4g, Carbohydrates 27g, Cholesterol 16mg, Dietary Fiber 3g, Sodium 162mg

Dietary Exchange: 2 Bread/Starch, 1½ Fat

- 1¼ cups white whole wheat flour
- ½ cup spelt flour
- ¼ cup ground flaxseeds
- 2½ teaspoons baking powder
- ¼ teaspoon salt
- ¼ teaspoon ground nutmeg
- ⅔ cup sugar
- ⅔ cup fat-free (skim) milk
- ½ cup mashed very ripe banana (1 large)
- ¼ cup canola oil
- 1 egg
- ¼ cup chopped pecans

1. Preheat oven to 400°F. Line 12 standard (2¾-inch) muffin cups with paper baking cups or grease bottoms only.

2. Stir together whole wheat flour, spelt flour, flaxseeds, baking powder, salt and nutmeg in medium bowl. Whisk sugar, milk, banana, oil and egg in large bowl. Stir in flour mixture just until moistened (batter will be lumpy). Fold in pecans. Divide batter evenly among muffin cups.

3. Bake 18 to 20 minutes or until golden brown and toothpick inserted into centers comes out clean. Remove from pan to wire rack. Serve warm.

Take Note!

Spelt is an ancient whole grain that looks similar to wheat, but has a higher protein and fiber content and is also rich in B vitamins.



Sweet Curried Chicken and Quinoa Salad

MAKES 2 SERVINGS (1 CUP PER SERVING)



Nutrients per Serving:

Calories 326, Total Fat 11g, Saturated Fat 1g, Protein 21g, Carbohydrates 38g, Cholesterol 39mg, Dietary Fiber 5g, Sodium 286mg

Dietary Exchange: 2 Bread/Starch, ½ Fat, ½ Fruit, 1 Meat

- ⅓ cup uncooked quinoa
- ½ ounce (2 tablespoons) sliced almonds
- 1 boneless skinless chicken breast (4 ounces), cut into ½-inch cubes
- 1 tablespoon plus 1½ teaspoons light mayonnaise
- 1 tablespoon plus 1½ teaspoons fat-free sour cream
- 1½ teaspoons sugar substitute
- 1 teaspoon curry powder
- ¼ teaspoon ground cumin
- ⅛ teaspoon salt
- ½ cup very thinly sliced celery
- ¼ cup finely chopped red onion
- 3 tablespoons golden raisins or regular raisins
- Baby spinach leaves (optional)

1. Place quinoa in fine-mesh strainer and rinse well under cold running water. Bring 1 cup water to a boil in small saucepan over high heat. Stir in quinoa; reduce heat to medium-low. Cover and simmer 15 to 18 minutes or until liquid is absorbed and quinoa is tender. Let cool.

2. Heat large nonstick skillet over medium-high heat. Add almonds and cook and stir 3 to 4 minutes or until lightly browned. Transfer to plate and set aside. Spray skillet with nonstick cooking spray. Cook and stir chicken 3 to 5 minutes or until cooked through. Let cool.

3. Combine mayonnaise, sour cream, sugar substitute, curry powder, cumin and salt in medium bowl. Stir until well blended. Stir in celery, onion and raisins.

4. Add chicken, almonds and quinoa; stir gently until blended. Let stand 10 minutes to blend flavors. Serve over spinach leaves, if desired.

Take Note!

This recipe was tested using sucralose-based sugar substitute.

Creamy Barley Pudding with Raisins and Nuts



YIELD: MAKES 10 SERVINGS

Nutrients per Serving:

Calories 158, Total Fat 3g, Saturated Fat 1g, Protein 5g, Carbohydrates 29g, Cholesterol 21mg, Dietary Fiber 4g, Sodium 148mg

Dietary Exchange: 2 Bread/Starch, ½ Fat

- 1 cup hulled or pearl barley
- ½ teaspoon salt
- 2 cups low-fat (1%) milk, divided
- ½ cup raisins
- ⅓ cup sugar
- 1 egg
- 1 to 2 teaspoons grated orange peel
- ½ teaspoon ground cinnamon
- 1½ teaspoons vanilla
- 3 tablespoons plus 1 teaspoon chopped pecans, toasted

1. Bring 6 cups water to a boil in 3-quart saucepan. Add barley and salt; reduce heat. Cover and simmer 1 hour and 15 minutes until barley is tender but chewy, stirring occasionally. Drain and return to saucepan. Stir in 1½ cups milk and raisins. Cook and stir over medium heat just until steaming and beginning to boil.

2. Whisk remaining ½ cup milk, sugar, egg, orange peel and cinnamon in medium bowl. Stir 1 cup hot barley mixture into egg mixture, then whisk mixture back into saucepan. Cook 1 to 2 minutes or until thick and bubbly, stirring constantly. Remove from heat; stir in vanilla. Cool slightly. Serve warm or cold in dessert dishes topped with pecans. Store leftovers, covered, in refrigerator.

Take Note! To toast pecans or other nuts, spread in a single layer in a heavy skillet. Cook over medium heat 1 to 2 minutes or until nuts are lightly browned, stirring frequently.





Bulgur with Asparagus and Spring Herbs



MAKES 4 SERVINGS (1 CUP PER SERVING)

Nutrients per Serving:

Calories 148, Total Fat 4g, Saturated Fat 1g, Protein 6g, Carbohydrates 25g, Cholesterol 0mg, Dietary Fiber 7g, Sodium 98mg

Dietary Exchange: 1 Bread/Starch, ½ Fat, 2 Vegetable

- ¾ cup uncooked bulgur
- 2 cups sliced asparagus (1-inch pieces)
- ½ cup frozen peas, thawed
- ¾ cup chopped fresh Italian parsley
- 2 teaspoons finely chopped fresh mint
- 3 tablespoons lemon juice
- 1 tablespoon orange juice
- 1 tablespoon extra virgin olive oil
- ⅛ teaspoon salt
- ⅛ teaspoon black pepper

- 1.** Prepare bulgur according to package directions, omitting any salt or fat. Drain well.
- 2.** Steam asparagus in steamer basket over boiling water 3 to 4 minutes or until bright green and crisp-tender. Cool under cold running water, drain well and blot with paper towels.
- 3.** Combine bulgur, asparagus, peas, parsley and mint in large bowl. Whisk lemon juice, orange juice, oil, salt and pepper in small bowl. Pour over bulgur mixture; toss gently.

Take Note!

Bulgur is a whole grain that's high in fiber and protein. It's also a good source of iron, magnesium, and B vitamins.

Roasted Salmon and Asparagus with Quinoa



MAKES 4 SERVINGS

Nutrients per Serving:

Calories 182, Total Fat 7g, Saturated Fat 1g, Protein 16g, Carbohydrates 14g, Cholesterol 31mg, Dietary Fiber 4g, Sodium 247mg

- 1 pound fresh thin asparagus spears
- 2½ teaspoons olive oil, divided
- 8 ounces wild-caught salmon fillet
- ¾ teaspoon salt, divided
- ¼ teaspoon black pepper, divided
- ½ cup uncooked quinoa
- 1 green onion, chopped
- 1 teaspoon lemon juice
- ½ teaspoon minced fresh dill
- 4 lemon wedges (optional)

1. Preheat oven to 400°F. Snap tough ends off asparagus. Place in large nonstick roasting pan. Drizzle with 1 teaspoon

oil. Roast 10 minutes. Turn asparagus and push to one side of pan. Arrange salmon, skin side down, on other side. Brush with ½ teaspoon oil, sprinkle with ⅛ teaspoon salt and ⅛ teaspoon pepper. Roast 10 to 13 minutes or until salmon is cooked through. Remove asparagus and cut into bite-size pieces. Remove skin from salmon.

2. Meanwhile, place quinoa in fine-mesh strainer; rinse well under cold running water. Bring 1 cup water to a boil in small saucepan; stir in quinoa. Reduce heat to low; cover and simmer 10 to 15 minutes or until quinoa is tender and water is absorbed. Transfer to large bowl.

3. Stir in asparagus, green onions, lemon juice, dill, remaining 1 teaspoon oil, remaining ¼ teaspoon salt and remaining ⅛ teaspoon pepper. Transfer to four plates; top with salmon. Garnish with lemon wedges, if desired.



Chile and Lime Quinoa

MAKES 4 (½-CUP) SERVINGS

Nutrients per Serving:

Calories 144, Total Fat 8g, Saturated Fat 1g, Protein 3g, Carbohydrates 16g, Cholesterol 0mg, Dietary Fiber 2g, Sodium 153mg

Dietary Exchange: 1 Bread/Starch, 1½ Fat

-
- ½ cup quinoa
 - 1 small jalapeño pepper, minced
 - 2 tablespoons finely chopped green onion
 - 2 tablespoons olive oil
 - 1 tablespoon fresh lime juice
 - ¼ teaspoon salt
 - ¼ teaspoon ground cumin
 - ¼ teaspoon chili powder
 - ⅛ teaspoon black pepper
-

1. Place quinoa in fine-mesh strainer; rinse well under cold running water.

2. Combine quinoa and 1 cup water in small saucepan; bring to a boil over high heat. Reduce heat to low; cover and simmer 12 to 15 minutes or until quinoa is tender. Drain. Cover; let stand 5 minutes.

3. Stir jalapeño, green onion, oil, lime juice, salt, cumin, chili powder and black pepper into quinoa. Fluff mixture with fork. Serve warm or at room temperature.



Non-Drug Treatment for Restless Legs Syndrome

Clinically Proven to Improve Sleep
in Primary RLS Patients



RELAXIS | COUNTERSTIMULATION FOR RESTLESS LEGS SYNDROME INDICATIONS FOR USE: The purpose of the Relaxis device is to improve the quality of sleep in patients with primary Restless Legs Syndrome (RLS) through the use of vibratory counterstimulation.

FDA-Cleared Device for RLS

Non-Invasive

Non-Medication Solution

Free 30-Day Trial Available



Relaxis®
Experience Relief. Discover Sleep.

To learn more, call
1-888-475-7435 or visit
www.MyRelaxis.com

Popcorn

By Lea Ann Holzmeister, RD, CDE

There's nothing like relaxing with a good movie and a big bowl of hot popcorn. When prepared with just the right ingredients, popcorn is a healthy, high-fiber whole grain snack. But some popcorn is loaded with saturated fat, trans fat, sugar and sodium, making it worse than chips or candy.

Popcorn is a whole-grain maize product, grown and cultivated like corn on the cob. But only popcorn kernels are capable of popping. Popcorn kernels contain a small amount of water and when heated, the water expands. Eventually, the kernels explode and pop. The water escapes as steam, turning the kernels inside out. Popcorn is available as unpopped corn in bulk, microwaveable and pre-popped (ready to eat).

Plain popcorn is relatively low in calories and contains no saturated fat or sodium. But pre-packaged microwave, ready-to-eat and movie theater popcorn often are heavily processed and packed with added fat, saturated fat and salt. Most popcorn eaten today is either of microwaveable or pre-popped varieties. These varieties have expanded in recent years to include cheese, kettle, candy coated and "movie theater butter." Consequently, the nutrition profile of microwave popcorn has expanded as well.

Serving sizes of microwave and pre-popped popcorn vary, making it confusing when comparing products and determining the nutrient content. Before you check a popcorn's Nutrition Facts label, always check the serving size. A typical bag of microwave popcorn contains about 10 cups of popcorn. A small movie theater popcorn contains about 11 cups of popcorn.

Microwave popcorn serving sizes vary from 3 to 6½ cups, with some single-serving products indicating "one bag" as a serving. But keep in mind that most microwave popcorn bags contain more than one serving. Therefore, it's important to read the serving size and the number of servings per con-

tainer on the Nutrition Facts label. Microwave popcorn also comes in "mini" or "snack size" single-serving bags. Often, these contain larger portions than the serving sizes listed on a multiple-serving microwave bag.

Microwave popcorn labels can be confusing. It's not always easy to figure out what's in your serving, depending on whether you eat 3 cups, half the bag or the whole bag. And the serving size varies by manufacturer. Some manufacturers list nutrient content in "one cup popped" portions, but most people don't measure how many cups they're eating. It would be simpler if all microwave popcorn labels indicated nutrient content by providing information for a full bag popped, since many consumers eat popcorn by the bag (or half bag).

Ready-to-eat, pre-popped bagged popcorn servings vary from ¼ cup to 3¾ cups. One serving of ready-to-eat popcorn equals one ounce of popped corn. The more dense or heavy the popcorn, as in the case of caramel, toffee or chocolate-coated popcorn, the fewer cups are in a serving. For example, the serving size of Cracker Jack Caramel Coated with Peanuts is ¼ cup. If you are like most people, you eat more than a ¼ cup serving. The serving sizes listed in the table following this article are based on the Nutrition Facts label of each product.

The nutrients to consider in popcorn include the carbohydrate in corn or added sugars in processing, fat added in processing and sodium. Microwave or ready-to-eat popcorn can contain added fat from healthy sources (low in unsaturated fats) such as canola oil, sunflower oil, grapeseed oil and olive oil, or from unhealthy sources (saturated and trans fat) such as partially hydrogenated oils (trans fat) and palm oil. The good news is that ready-to-eat, bagged popcorn is less likely to contain trans fat. Microwave and pre-popped popcorn contains 35% to 70% of total calories from fat, making it a relatively low- or high-fat snack, depending on processing and variety.

The fat content of microwave and pre-popped popcorn

varies from 1 gram in 3 cups of Quinn Microwave Just Sea Salt Popcorn to 18 grams in Orville Redenbacher's Kettle Corn Mini Bags. Higher fat popcorn contains more calories per ounce. To keep calories per serving lower and to make the product more appealing, manufacturers make the portion size smaller.

Unfortunately, some popcorn brands continue to use partially hydrogenated oil, a source of unhealthy trans fat. The American Diabetes Association recommends people with diabetes limit saturated fat intake to less than 7% of calorie intake, and trans fat should be minimized. For a person on a 1,500-calorie per day meal plan, 7% of calories from saturated fat would be less than 12 grams per day, and trans fat intake would be less than 2 grams per day.

One bag of Jolly Time Blast O Butter Microwave Mini contains 6 grams of trans fat in 4.5 cups (one bag), which is three times the recommended daily limit of trans fat intake. To minimize trans fat intake, look for microwave popcorn brands such as ACT II, Orville Redenbacher's, Pop Secret 94% Fat Free and Light, Quinn and Trader Joe's, which don't contain partially hydrogenated oil.

Instead of trans fat, some manufacturers use palm oil, a source of saturated fat. For example, Orville Redenbacher's Kettle Corn contains 7 grams of saturated fat in a 5-cup serving. Even Orville Redenbacher's Naturals Lime and Sea Salt contains 7 grams of saturated fat per 4½ cup serving. Keep in mind that although "natural" popcorn does not contain artificial colorings, flavorings and preservatives, "natural" does not automatically mean healthy (low fat, low saturated fat, low sodium).

The higher the total fat content of processed microwave or pre-popped, ready-to-eat popcorn, typically the higher the saturated fat content. Read Nutrition Facts labels and choose popcorn with less than 1½ grams of saturated fat per serving. To narrow down the search for a healthy, low saturated fat microwave or bagged popcorn, look for brands labeled "94% Fat-Free," "No Oil" or "Light." Trader Joe's Reduced Guilt Air-Popped Popcorn has 23% of calories from fat with only 110 calories, 3 grams of fat, 0 trans fat and 0 saturated fat in a 2½ cup serving.

Ready-to-eat popcorn (especially cheese and candy coated) typically contains higher fat, saturated fat and sugar than microwave varieties. For example, Smartfood White Cheddar Cheese Popcorn contains 10 grams of fat in a 1¾ cup serving.

Carbohydrate sources in popcorn include the corn kernel and added sweeteners. The 2015-2020 Dietary Guidelines for Americans recommend limiting the amount of added sugar to no more than 10% of daily calories. For a 1,500-calorie meal plan, this is approximately 9 teaspoons of added sugars. Most popcorn varieties contain no added sugar, with the exception of candy-coated popcorn such as kettle corn, toffee, caramel

and chocolate popcorn. For example, Smartfood Sweet & Salty Kettle Corn contains 140 calories, 6 grams of fat, 20 grams of carbohydrate and 11 grams of sugar (about 3 teaspoons of sugar) in a 1¼ cup serving. This would provide one-third of the daily limit for sugar intake for a 1,500-calorie meal plan.

Cup for cup, candy-coated popcorns have about triple the calories of regular popcorn. Some microwave, sweetened popcorns are sweetened with the sugar substitute sucralose, which decreases calorie and sugar content.

Other ready-to-eat candy-coated popcorn, such as Franklin's Crunch and Munch, pack ample fat and sugar into a small volume. Two-thirds of a cup of this sweetened popcorn contains 150 calories, 23 grams of carbohydrate and 6 grams of fat. Most people eat two to three times this amount in one sitting.

Processed popcorn can contribute a significant amount of sodium, depending on serving portion and variety. The American Diabetes Association recommends people with diabetes reduce their sodium intake to 2,300 milligrams (or less) per day to lower blood pressure and reduce risk of cardiovascular disease. Check the Nutrition Facts label for sodium content, which for unsweetened microwave popcorn varies from 75 milligrams in 5 cups of Jolly Time Healthy Butter Low Sodium to 400 milligrams in 4 cups of Orville Redenbacher's Natural Light Classic Butter

and Sea Salt. Keep in mind that "sea salt" does not mean "low sodium." For those choosing a larger serving size than stated on the label (i.e., the entire microwave bag), sodium content will be higher. For many popcorn lovers, unsalted popcorn tastes good.

Popcorn is a high-fiber, whole-grain snack. Fiber has a number of health benefits, including GI regularity and health, lower cardiovascular risk and decreased risk of diabetes. The carbohydrate and fiber content of microwave and already-popped popcorn varies with the portion size and the variety. Three to four cups of unsweetened popcorn contains approximately 15 grams of carbohydrate or one carbohydrate choice. Depending on the serving size, microwave and ready-to-eat popcorn contains 1 to 6 grams of fiber. For example, Act II Microwave 94% Fat Free Butter Popcorn contains 4 grams of fiber in 6½ cups. Refer to the Nutrition Facts label to determine the portion size to meet your meal plan.

Unprocessed, plain popcorn is naturally high in fiber and low in sodium and fat. Popcorn can be a healthy snack when you choose "naked" air popped popcorn made using a hot air popper, which adds no fat or sodium. Check product serving sizes before reading Nutrition Facts information. When choosing microwave or ready-to-eat popcorn, select varieties that contain no partially hydrogenated oil, less than 1.5 grams of saturated fat and no more than 300 milligrams of sodium per serving. And limit portion sizes of candy-coated popcorn.



**READY-TO-EAT
POPCORN TYPICALLY
CONTAINS HIGHER
FAT, SATURATED
FAT AND SUGAR
THAN MICROWAVE
VARIETIES.**



POPCORN

	SERVING	CALORIES	FAT (g)	FAT CALORIES	SATURATED FAT (g)	TRANS FAT (g)	CHOLESTEROL (mg)	SODIUM (mg)	CARBOHYDRATE (g)	SUGAR (g)	FIBER (g)	PROTEIN (g)
Act II Microwave Popcorn												
Butter	4.5 cups	120	5	45	2	0	0	180	19	0	3	3
Butter Lover's	4.5 cups	120	4	40	2	0	0	250	19	0	2	3
Movie Theater Butter	4.5 cups	150	8	70	4	0	0	370	19	0	3	2
Light Butter	6 1/2 cups	130	4	20	1	0	0	300	27	0	3	4
94% Fat Free Butter	6 1/2 cups	130	2	20	.5	0	0	190	27	0	4	4
Mini Bags, Butter	5 1/2 cups	100	2.5	25	1	0	0	310	21	0	4	3
Kettle Corn	4 1/2 cups	150	9	80	4	0	0	170	19	0	3	2
Buttery Kettle Corn	4 1/2 cups	150	8	80	4	0	0	170	20	0	3	2
Cracker Jack												
Caramel Coated with Peanuts	1/4 cup	120	2	15	0	0	0	70	23	15	1	2
Original	1 1/4 cup	140	6	50	0.5	0	0	110	20	11	2	<1
Franklin's												
Crunch and Munch Toffee with Peanuts	2/3 cup	150	6	50	1.5	0	5	170	22	0	1	0
Smartfood Pre-popped												
White Cheddar Cheese	1 3/4 cup	160	10	90	2	0	<5	290	14	2	2	3
Movie Theater Butter	2 1/2 cups	150	9	80	1.5	0	0	240	16	0	3	3
Delightfully Delicious White Cheddar	3 1/2 cups	130	5	45	1	0	0	220	18	<1	3	3
Delightfully Delicious Sea Salt	3 3/4 cups	140	7	60	1	0	0	115	17	0	4	3
Sweet & Salty Kettle Corn	1 1/4 cup	140	6	50	0.5	0	0	110	20	11	2	<1
Jolly Time Microwave Popcorn												
Blast O Butter	3 1/2 cups	158	11	88	2	3.5	0	298	14	0	4	4
Butter	4 cups	160	8	80	2	0	0	260	16	0	3	2
Xtra Butter	4 cups	160	11	100	4	0	0	300	16	<1	3	3
Crispy 'n White	4 cups	120	8	60	3	0	0	180	16	0	4	3
Crispy 'n White Lite	5 cups	125	4	50	1.5	0	0	225	20	0	5	3
Healthy Pop Butter 94% Fat Free	5 cups	100	2	20	0	0	0	175	25	0	5	3
Healthy Pop Butter Low Sodium	5 cups	100	2	20	0	0	0	75	25	0	5	3
Healthy Pop Kettle Corn	5 cups	100	2	20	0	0	0	225	25	0	5	3
Orville Redenbacher's Microwave Popcorn												
Butter	4 cups	170	12	110	6	0	0	260	17	0	3	2
Ultimate Butter	4 cups	170	12	110	6	0	0	390	16	0	3	2
Movie Theater Butter	4 cups	160	9	80	4	0	0	250	19	0	3	2
Pour Over Movie Theater Butter	3 1/2 cups	180	14	120	4.5	.5	0	320	14	0	3	2
Light Butter	5 1/2 cups	120	5	45	2.5	0	0	190	19	0	4	3
Kettle Korn	5 cups	170	13	110	7	0	0	130	16	0	3	2
Mini Bags, Kettle Korn	5 1/2 cups	240	18	160	9	0	<5	180	20	0	4	3
Cheddar Cheese	4 1/2 cups	180	14	120	14	0	0	340	16	0	3	2
Salted Caramel; Melt On Caramel	3 cups	170	8	70	2	1.5	0	35	26	12	2	1
SmartPop! 94% Fat Free Butter	6 1/2 cups	120	2	20	.5	0	0	290	25	0	4	4
SmartPop! Kettle Corn	7 1/2 cups	140	2.5	25	1	0	0	230	29	0	6	4
Naturals Simply Salted; Light Classic Butter	4 1/2 cups	170	11	100	5	0	0	400	17	0	3	2
Naturals Lime and Sea Salt	5 cups	220	7	140	7	0	0	370	21	0	4	3
Pop-Secret Microwave Popcorn												



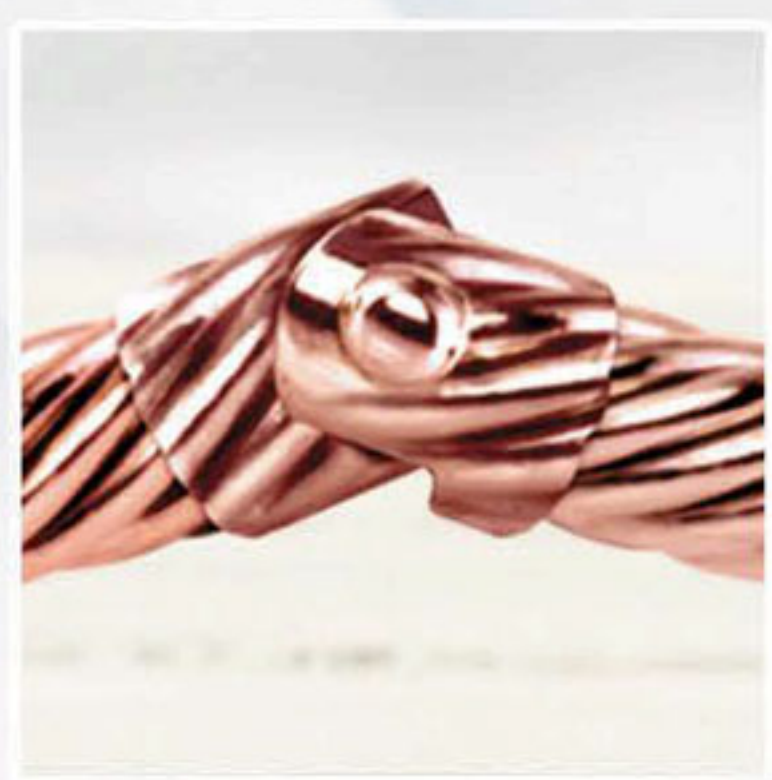
	SERVING	CALORIES	FAT (g)	FAT CALORIES	SATURATED FAT (g)	TRANS FAT (g)	CHOLESTEROL (mg)	SODIUM (mg)	CARBOHYDRATE (g)	SUGAR (g)	FIBER (g)	PROTEIN (g)
Butter	3 1/2 cups	140	12	88	2.5	5	0	310	15	0	2	2
Double Butter	3 1/2 cups	140	11	88	2	0	0	360	15	0	2	2
Extra Butter	4 cups	160	12	100	2.5	4.5	0	300	15	0	2	2
Jumbo Pop Butter	4 cups	140	12	80	2.5	4.5	0	270	14	0	2	2
Homestyle	3 1/2 cups	140	11	88	2.5	4.5	0	370	14	0	2	2
Movie Theater Butter	4 cups	160	12	100	2.5	4.5	0	300	15	0	2	2
Jumbo Pop Movie Theater Butter	4 cups	140	12	80	2.5	5	0	310	15	0	2	2
94% Fat Free Butter	4 cups	80	1.5	20	.5	0	0	270	20	0	2	3
Light Butter	4 cups	100	4.5	40	2	0	0	310	17	0	2	2
100 Calorie Pop 94% Fat Free Butter	1 Bag	100	2.5	15	1	0	0	330	29	0	4	4
100 Calorie Pop 94% Fat Free Kettle Corn	1 Bag	100	2	15	.5	0	0	250	23	0	3	3
100 Calorie Pop Kettle Corn	1 Bag	100	3.5	25	1.5	0	0	310	20	0	3	3
100 Calorie Pop Butter	1 Bag	100	4	25	1.5	0	0	270	20	0	3	3
Kettle Corn	4 cups	140	12	80	2	2.5	0	105	15	0	2	2
Sea Salt	5 cups	150	11	100	6	0	0	320	17	0	2	2
Cheddar	3 1/2 cups	140	11	88	2.5	4.5	0	310	15	0	2	2
Sweet 'n Crunchy Kettlecorn	2 cups	100	12	60	6	0	0	80	19	0	2	2
Pop-Secret Pre-popped Popcorn												
Pre-popped Extra Cheesy	5 cups	150	10	90	1	0	0	220	14	2	2	2
Pre-popped White Cheddar	3 cups	150	10	90	1.5	0	0	220	13	1	2	3
Pre-popped Homestyle; Pre-popped Salted	3 cups	150	9	80	1	0	0	220	15	0	3	3
Pre-popped Kettle Corn	3 cups	150	9	80	1	0	0	150	16	5	2	2
Pop Weaver Microwave Popcorn												
Butter	9 1/2 cups (1 bag)	270	11	110	2.5	0	0	450	33	0	6	5
Light Butter	9 1/2 cups (1 bag)	220	7	70	1.5	0	0	490	34	0	6	5
Extra Butter	9 1/2 cups (1 bag)	290	13	140	3	0	0	580	33	0	6	5
Quinn Microwave Popcorn												
Parmesan & Rosemary	3 cups	170	10	90	1	0	0	170	16	0	3	4
Vermont Maple & Sea Salt	3 cups	160	9	80	0.5	0	0	115	18	3	3	3
Real Butter & Sea Salt	3 cups	170	11	100	1.5	0	0	130	16	0	3	3
Olive Oil & Herbs	3 cups	140	8	70	1	0	0	105	16	0	3	3
Just Sea Salt	3 cups	80	1	10	0	0	0	160	16	0	3	3
Quinn Pre-popped Popcorn												
California Olive Oil	4 cups	150	9	80	1	0	0	170	15	0	3	3
With Organic Coconut Oil	4 cups	140	9	80	7	0	0	170	15	0	3	3
Trader Joe's Pre-popped												
Reduced Guilt	2 1/2 cups	110	3	25	0	0	0	60	20	0	4	3
Organic With Olive Oil	2 cups	130	6	50	1	0	0	170	18	0	3	3
White Cheddar	2 cups	160	9	80	2.5	0	0	200	15	3	3	4
Kettle Corn	2 cups	140	8	70	0.5	0	0	150	18	8	2	1
SkinnyPop Popcorn												
Original	3 3/4 cups	150	10	90	1	0	0	75	15	0	3	2
Black Pepper	3 3/4 cups	150	10	90	1	0	0	75	15	0	3	2
White Cheddar	3 1/2 cups	150	9	90	1	0	0	95	15	0	2	2
Naturally Sweet	3 1/2 cups	160	10	90	1	0	0	100	14	<1	4	2

Beautiful Natural Healers in a Stunning & Stylish Design

Hand-crafted Roped-Style Cable Bracelet in Gleaming Copper Plated in 18K Rose Gold

Set with 2 Genuine Faceted Purple Amethyst

Sculpted Sterling Silver Plated End-Caps Feature Lovely Flower Motif



Hinged construction makes the bracelet easy to take on and off



Sculpted floral design reflects the healing beauty of nature

Nature's Healing Treasures

• COPPER BANGLE BRACELET •

For centuries, the healing properties of copper have been thought to ease pain and relieve fatigue. Equally beneficial as a natural healer is the beautiful amethyst gemstone which is believed to heighten awareness and concentration and promote a calming effect on the mind. Enjoy the wonderful wellness benefits of both in a gorgeous designer-style bracelet only from The Bradford Exchange.

The Potential Healing Benefits of Copper and the Calming Effects of Amethyst

This exquisite bracelet is finely hand-crafted of a solid copper roped cable plated in gleaming 18K rose gold. Inspired by popular high-end designs, the bracelet has a hinged construction making

it easy to take on and off. Each end is finished with a sterling-silver-plated end cap adorned with a floral design and set with a sparkling genuine amethyst. What a magnificent way to feel as great as you look!

A Remarkable Value...Available for a Limited Time

This bracelet is an exceptional value at \$99*, payable in 4 easy installments of \$24.75 and backed by our 120-day guarantee. It arrives in a velvet jewelry pouch with a Certificate of Authenticity. To reserve, send no money now; just mail the Reservation Application. Don't miss out—order today!

www.bradfordexchange.com/21067

©2015 The Bradford Exchange 01-21067-001-BI

LIMITED-TIME OFFER

Reservations will be accepted on a **first-come, first-served basis**. Respond as soon as possible to reserve your bracelet.

RESERVATION APPLICATION

SEND NO MONEY NOW



9345 Milwaukee Avenue · Niles, IL 60714-1393

YES. Please reserve the "Nature's Healing Treasures" Copper Bangle Bracelet for me as described in this announcement.

*Plus \$9.98 shipping and service. Please allow 4-6 weeks for delivery of your jewelry after we receive your initial deposit. Sales subject to product availability and order acceptance.

Signature _____

Mrs. Mr. Ms. _____
Name (Please Print Clearly)

Address _____

City _____ State _____ Zip _____

E-Mail (Optional) _____

01-21067-001-E94301





Craftmatic®
Brand Adjustable Beds



Up to

**50%
LESS**

*Than Today's Leading
Memory Foam Brand!*

For Prices & FREE Information
Call: 800-414-1395

Weight

SELF-MANAGEMENT

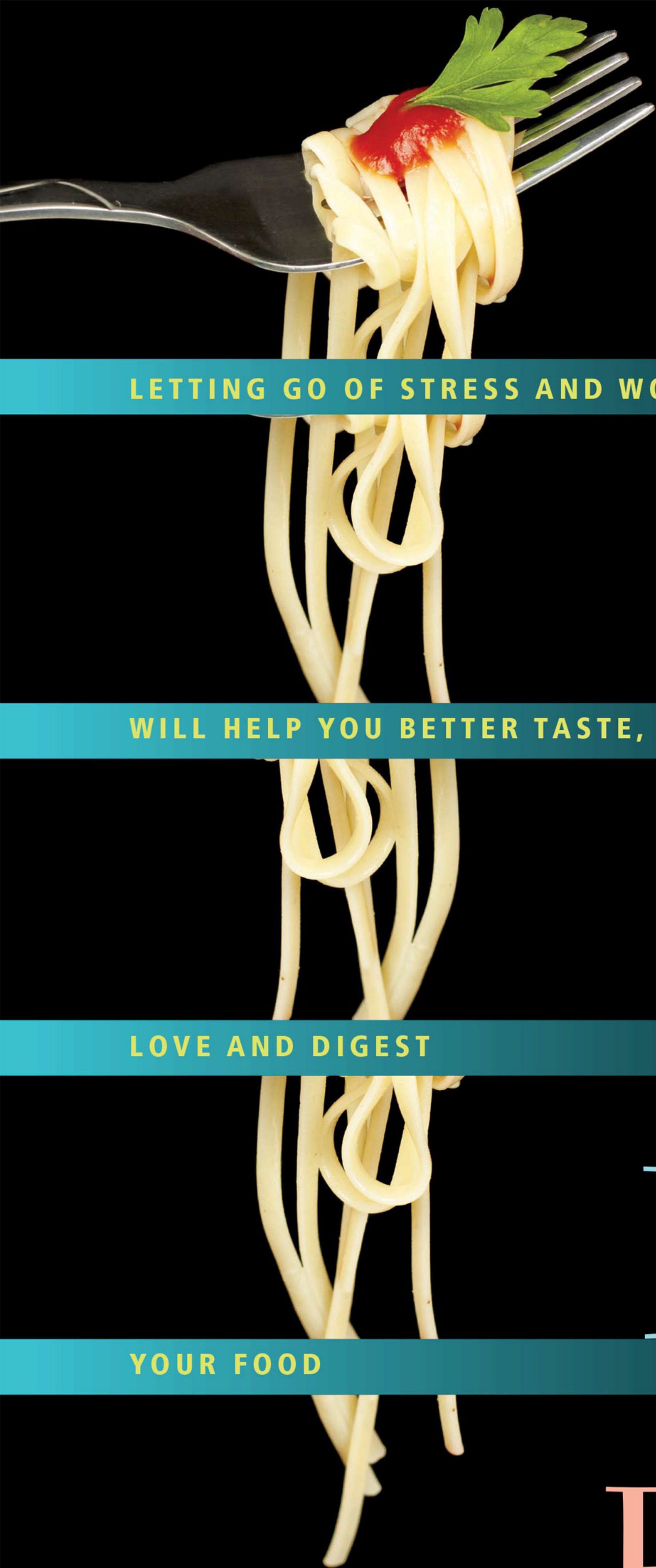


**TAKE
TIME TO
ENJOY
EATING**

TAKE 5
YOUR ANYTIME,
ANYWHERE
EXERCISE BREAK

**KNOW
YOUR
FACTS**

Navigating
the Nutrition
Facts Label
for Better
Food Choices



Take

LETTING GO OF STRESS AND WORRY

Time

WILL HELP YOU BETTER TASTE,

to

LOVE AND DIGEST

Enjoy

YOUR FOOD

Eating

By David Spero, RN

“EATING STRESSES ME OUT SOMETIMES,” said Jenny, a 42-year-old department store manager who describes herself as somewhat out of shape. “I worry about my food. Is it good for me? Will it make me fat? Raise my blood pressure? Maybe that’s why I eat so fast. I can’t say I enjoy eating anymore.”

Does Jenny’s story sound familiar? Modern culture, particularly the diet culture, can make food the enemy. It becomes something to worry about, not something to cherish and enjoy. When eating becomes a source of stress instead of a source of life, we have lost one of life’s great pleasures and weakened a vital connection to the world. According to Michelle May, M.D., founder of the website Am I Hungry, stress caused by a hostile relationship with food leads to overeating, unhealthy food choices and not enjoying food or digesting it well.

May describes herself as a recovered yo-yo dieter. “Eating is a natural, healthy and pleasurable activity for satisfying hunger,” she said. “However, in our food-abundant, diet-obsessed culture, eating instead often is mindless, consuming and guilt-inducing.”

To reconnect with food, May recommends a practice called mindful eating, “an ancient practice with profound applications for resolving this troubled love-hate relationship with food.”

Instead of hating or fearing our food, we should enjoy food and appreciate it. If approached with an open mind and heart, all food is a gift. Every morsel is the life force of the universe giving its energy to us. That’s not poetry—it’s fact. The sun’s energy flows into us through our food. But few of us regard food this way. We are too stressed about our weight or our health, or we’re too distracted to appreciate the miracle of food and savor its delights. We have things to do, worries to obsess over, people to talk to, screens to watch. We barely taste our food after the first bite.

Weight and health concerns can add a thick sauce of fear and doubt to everything we eat. How can we enjoy food if we’re thinking “Is this food going to kill me? Does eating this make me a bad person?”

Stressed eating prevents our bodies from absorbing and using food properly. Stress shuts down blood flow to the digestive tract to preserve more blood for the muscles’ “fight or flight response.” Consequently, many good nutrients are not absorbed under stress, and some hormones necessary for transporting and using food may not be produced.

The solution to this stress is mindful eating. In their book *The Mindful Diet*,

Duke University’s Ruth Wolever, Ph.D., and Beth Reardon, MS, RD, suggest giving loving attention to your food and to how it makes you feel. “Eat like a connoisseur,” they wrote. “This means slowing down and tuning in to the first few bites of whatever you are eating. You can do this whether you are alone in a quiet room or with a big group in a noisy restaurant.”

Is that how you eat? The more common eating pattern is described by the authors this way: “When you eat a bowl of pasta and sauce in front of the TV, you hardly taste anything. When that happens, your brain still seeks satisfaction. What’s missing is a full experience of eating informed by your senses. The missing ingredient is attention; not more food. We miss the experience when we pay attention to others things simultaneously. The solution? Mindful awareness of every aspect of the food itself.”

Practicing Mindful Eating

“Mindfulness” came out of Buddhism. It means awareness of your body and your environment and what is happening now—not staying lost in thoughts and worries about the past or future. Although originally a spiritual practice, mindfulness

now is used by therapists to treat high blood pressure, mental health problems, chronic pain and other conditions. It’s a simple process of calming our thoughts so we can pay attention to our bodies, our emotions and our environment.

Focused attention creates a healthier eating experience. “Many people who struggle with food react mindlessly to their unrecognized or unexamined triggers, thoughts and feelings,” said May. “In other words, they react, repeating past actions again and again and feeling powerless to change. Mindfulness increases your awareness of these patterns without judgment and creates space between your triggers and your actions.” Here is how Wolever, Reardon, May and other experts apply mindfulness to eating.

Savor the flavors. Close your eyes and focus only on the tastes. Stop eating what you are satiated with and eat what you are still hungry for. Focusing your body on knowing the food that’s coming enables it to better secrete the right digestive juices to absorb and use the food.

Notice the feelings in your body as you eat. How does your stomach feel? Are you energized or sluggish? Are you full? What other feelings do you have? Body awareness will keep

MINDFULNESS RESOURCES

► Am I Hungry?

Resources and stories about mindful eating at <http://amihungry.com/>. Michelle May, M.D., CSP, founded Am I Hungry? Mindful Eating Programs and Training in 1999.

► Center for Mindful Eating

Learn about the principles of mindful eating, programs, educational materials, webinars and more for professionals and lay people at <http://thecenterformindfuleating.org/>

BOOKS

► *The Mindful Diet: How to Transform Your Relationship with Food for Lasting Weight Loss and Vibrant Health* by Ruth Wolever, Ph.D., Beth Reardon, MS, RD, LDN, and Tania Hannan, Scribner, April 2015

► *Mindful Eating: A Guide to Rediscovering a Healthy and Joyful Relationship with Food* by Jan Chozen Bays, Shambhala 2009

► *Full Catastrophe Living*, by Jon Kabat-Zinn, revised Edition, Bantam 2013.

Kabat-Zinn is the founder of Mindfulness Based Stress Reduction (MBSR), the first and most widely used mindfulness health program. Read about its history and how it works at https://en.wikipedia.org/wiki/Mindfulness-based_stress_reduction

you from overeating while adding to the relaxed state you are trying to cultivate. As you can imagine, watching TV, texting or working at your computer while eating takes your attention away from your food and your body. It's the opposite of mindfulness. Don't do it. Those devices can wait.

An Attitude of Gratitude. Take time before eating to give thanks, silently or aloud. According to Reardon and Wolever, "Giving thanks focuses our attention on the meal. Our bodies make a switch from the sympathetic [stressed] to the parasympathetic [healing] nervous system, which allows for better digestion." Giving thanks also brings people together around a table and reminds us of our place in the web of life. To include the people you eat with, go around the table and take turns sharing one thing you are thankful for.

Focus. Don't talk; don't look around. It's all about the food. Of course you have to pay attention to the people at your table, but don't forget you're there to eat.

Slow Down. A study of nearly 10,000 people in Japan found that the faster people ate, the more likely they were to have metabolic syndrome: elevated blood pressure, blood sugar and weight. Mindful eating is the antidote to high-speed eating. Ways to slow down include putting your fork or your food down between bites, eating with your nonpreferred hand, taking a deep breath between bites or taking a moment to imagine the plant you are eating as it grows, with the sun shining on it and the rain nourishing it.

When you take your time like this, you probably will notice you feel full sooner. That's because you have time to register your feelings of having enough and because the food is giving you more pleasure. Eating one onion ring mindfully might give you as much satisfaction as gobbling a whole plate of them mindlessly.

Mindful eating could start some really good things for you. According to the Center for Mindful Eating, "Our relationship to food is a central one that reflects our attitudes toward our environment and ourselves. As a practice, mindful eating can bring us awareness of our own actions, thoughts, feelings and motivations, and insight into the roots of health and contentment."

Mindful eating might be the first step toward a more mindful life. If your mind is racing all the time, you may find it hard to become suddenly mindful at mealtime. Practicing meditation for a few minutes a day will make mindful eating easier, but you can start by focusing on eating and then move to other kinds of meditation later if you choose.

There's no big trick to meditation. You sit and focus on your breathing, on an object or on a single thought. When distracting thoughts come, as they will, gently let go of them and come back to your breathing or your object of focus. It takes years for most people to become skilled at meditation, but mindful eating is much easier because you have the food on which to focus.

Mindfulness is a healthy skill to learn. According to the Center for Mindful Eating, "With practice, mindfulness cultivates the possibility of freeing yourself of reactive, habitual patterns of thinking, feeling and acting. Mindfulness promotes balance, choice, wisdom and acceptance of what is."

Barriers to mindful eating

Few of us live like Buddhists in a monastery. Much about our modern way of life makes mindful eating difficult. Fortunately, these societal barriers can be broken down.

- *Eating publicly can make it harder to keep awareness on food.*

Restaurants and parties are distracting. There's a lot to see, hear and think about. You might feel some social anxiety about eating mindfully around other people. If you pay attention to your food instead of them, will they become angry, or are you being rude?

It's OK to switch in and out of mindful mode when other people are around. You can talk with them and listen to them, but every once in a while, come back to focusing on and appreciating your food. They probably won't even notice, but if they do, tell them what you are doing and invite them to join you.

To avoid distraction, Wolever and Reardon recommend focusing on your body. "Ground yourself by focusing on your feet, feeling your toes, how you're standing or sitting. Feel the way your body makes contact with the chair. The body can always center itself if you let it."

You can use mindful eating even at a stressful family dinner. In fact, it might help everyone at the table if you stay mindful. If you close your eyes to better taste your food and your teenager asks what you are doing, you can tell him or her, "I'm learning to really enjoy my food." Maybe your companions will try it themselves.

- *You don't have enough time to focus.*

You have to get back to work or child care or whatever. In reality, mindful eating need not take longer than our usual mindless approach. The difference lies in what we're concentrating on while we're eating. As with meditation, you might find the available time stretches out when you pay attention. We usually have more time than we think we do.

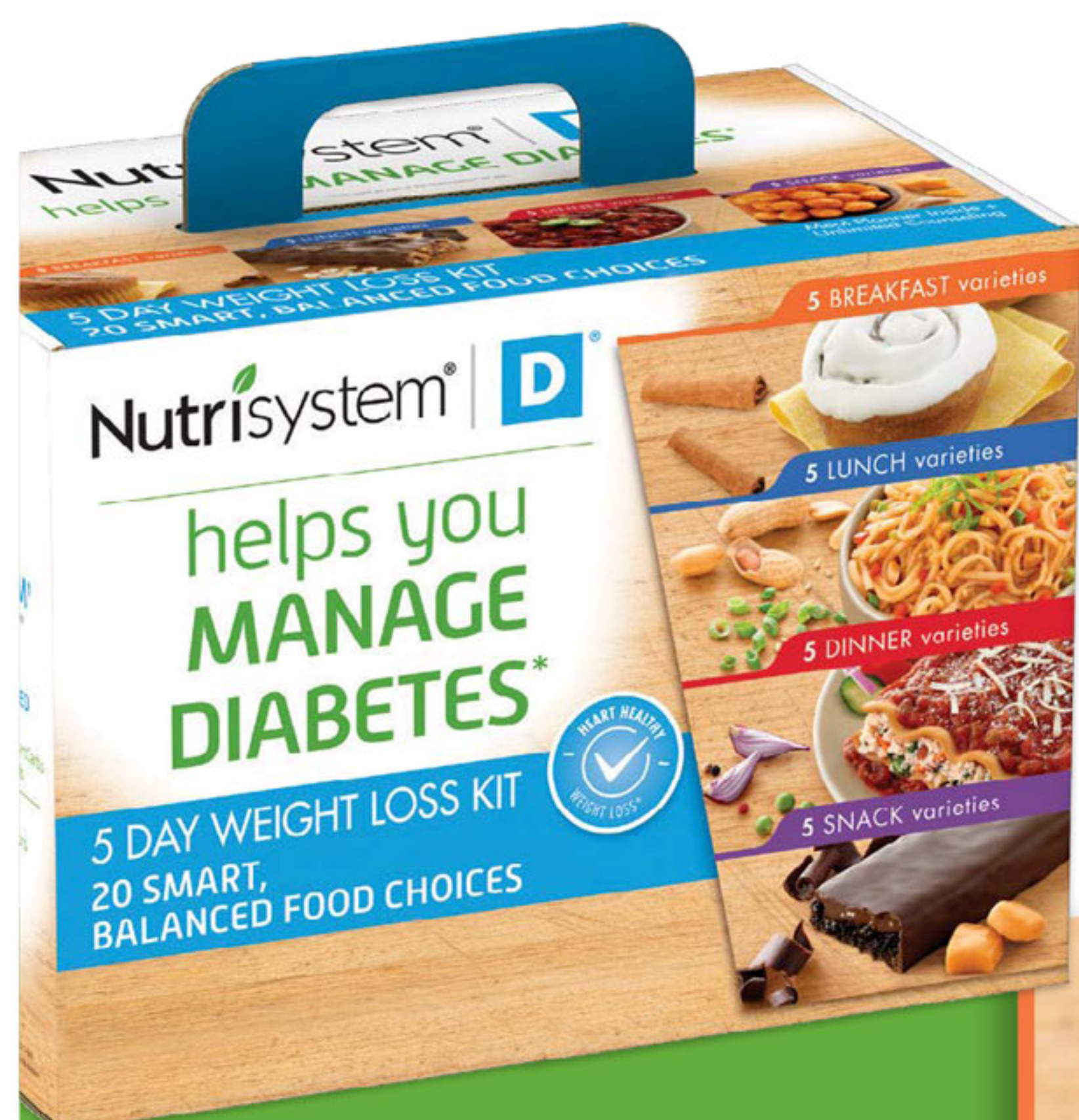
- *Sometimes food is of low quality or is not tasty.*

You might say, "Well, that's too bad about not enjoying our food, but it's not a five-star restaurant dinner, is it? It's just a sandwich from the machine at work." The problem with that is if we don't taste our food and feel our body's reaction to it, we don't know if it's good for us. We also won't know when we've had enough. The fact is, almost any food has some nutritional or flavor quality we can enjoy. Don't be too quick to judge, but if there's nothing in that sandwich worth focusing on, maybe you should be eating something else.

Dinner might take a little longer this way. You might eat less and talk less, but it's worth it.

Mindful eating is a spiritual practice as well as a health practice. You'll become more aware of your place in the world. You'll digest and absorb better. You'll enjoy food more and be less tense. It will help you take on your natural weight. It might not be easy at first, but it will be enjoyable right from the start. Practice and see what happens. ▣

David Spero has been a nurse for 40 years and has lived with multiple sclerosis (MS) for 35 years. He has written award-winning books and magazine articles, and two long-running blogs on healthy living and eating. His new series, *The Inn by the Healing Path: Stories on the Road to Wellness*, explores the spiritual side of health.



5 Day Weight Loss Kit

Available at Your Local **SUPERCENTER** 

© 2016 NUTRISYSTEM EVERYDAY, LLC.

Don't Give Up **Delicious!**[™]

Lose weight with smart, balanced food choices

Nutrisystem | **D**[®]
HELPS YOU MANAGE DIABETES

When used as part of the Nutrisystem[®] D[®] 4 week plan.



Can I trust a gluten free menu?

Gluten-Free
LEADING THE WAY TO A HAPPY, HEALTHY GLUTEN-FREE LIFE Living[™]

Just \$19.95
for six issues!

To subscribe call 855-367-4813
or go to **glutenfreeliving.com**.
Promo code: SBCGFDM

Here with you. Here for you.

KNOW YOUR



NAVIGATING THE NUTRITION FACTS LABEL
FOR BETTER FOOD CHOICES

By
Liz Combs, EdD-C, MS, RD, LD and
Laura Hieronymus, DNP, MEd, RN

IF

you're like the majority of Americans, your current goal might be to make better food choices and establish healthier eating habits. This can be a daunting task, since it seems nutrition advice changes on a daily basis. However, one recommendation that has not changed: We all should be aware of what we eat.

The first step in understanding your food choices is to read—and actually understand—the nutrition facts label on food packaging to uncover the necessary nutrition information. Once you are aware of this information about the foods you regularly eat, you will be able to navigate nutrition lingo and make better food choices.

The nutrition facts label has been required on most packaged food in the U.S. since the Nutrition Labeling and Education Act of 1990, which was recommended by the Food and Drug Administration (FDA). Overall, very little has changed on the label since 1990.

In addition to the standard nutrition facts label, foods with more than one ingredient must have an ingredient

list on the package. A very important fact is that nutrient items are listed in descending order by weight. This means ingredients that make up the largest amounts of a product are listed first. This is particularly useful if you want to limit added sugars or increase a certain food in your daily eating habits.

Understanding nutrition facts labels can help you make informed dietary choices, but only if you know exactly what to look for and how to decode the nutrition jargon. Starting from the top and working your way down, you can determine the specific purpose of each part of the nutrition label.

Keep in mind that since the eye generally reads from left to right and top to bottom, the most important items are listed at the top of the nutrition facts label. Because the serving size and servings per container are at the very top, that's where the eye should go first. The serving size affects the interpretation of all other items on the label, which are calculated "per serving."

A very important consideration regarding the serving size is that it is not synonymous with portion size. The FDA actually sets the serving sizes for all foods to simplify the measurement, not as a suggested portion size. The standardization of serving sizes does help consistently compare products. However, it can mislead consumers when the serving size is substantially

smaller or larger than what you might perceive as a typical portion size. For example, if the label says there are 150 calories in an 8 ounce serving of soda but the bottle holds 16 ounces, the entire bottle contains 300 calories. Therefore, it is incredibly important to compare the amount you actually consume to the serving size listed on the label. If the serving size of vanilla ice cream is $\frac{1}{2}$ cup and you eat a full cup, you are getting twice the amount of calories, fat, sugar and all the other nutrients listed per serving on the label.

After you gain an understanding of the serving size (and compare it to your actual portion size), the next item on the label is the total number of calories per serving. Since most weight-loss plans limit or monitor calories, this can be your weapon when it comes to successful weight-loss endeavors. By tracking the number of calories you consume on a regular basis, you will be able to pinpoint certain high-calorie choices and consider ways to limit or modify these foods. Remember, the number of servings of each product you eat determines the total number of calories you consume. Although there are

many aspects of a meal plan, the tried and true adage of calories out (expended, for example in your daily physical activity) must be greater than calories in (consumed on a daily basis) holds true. Therefore, taking a look at these numbers for foods you eat regularly can help keep your intake of total calories at a healthy level.

Now that you've looked at the two big numbers related to weight loss, use the rest of the nutrition facts label to determine how healthy an item actually is. These numbers are very important because while it is one thing to limit calories, it is another thing to do so while making the most of your nutrition status. To achieve this goal, you must understand the information provided about certain nutrients. Certain nutrients on the nutrition facts label need to be limited, while others need to be maximized.

Once the serving size and calories are reviewed, the eye comes next to a section that deals with a few nutrients that must be limited or consumed in moderate amounts, including total fat, saturated fat, trans fat, cholesterol and sodium. Here is a breakdown of these nutrients.

Total fat. This number is made up of all the saturated, polyunsaturated, monounsaturated and trans fats in a product. The balance of these is just as important as the total number. You want to limit the amount of saturated fat and trans fat while including proportionally more polyunsaturated and monounsaturated fats.

Saturated fat. To maintain a meal plan that is healthy for the heart, adults are encour-

aged to keep their intake of saturated fat to less than 10% of their total calories. Saturated fats are solid at room temperature (think butter compared to olive oil). If you need a total of 2,000 calories per day, your saturated fat intake should be no more than 200 calories (or 22 grams of saturated fat) per day.

Trans fat. This type of fat can do a double whammy on your overall health by decreasing your good cholesterol levels and increasing the bad ones. Therefore, it is recommended that you consume as little as possible, ideally limiting daily intake to 2 grams or less.

Cholesterol. Adults are advised to limit daily intake of total cholesterol to less than 300 mg for heart health. It is important to note cholesterol is found only in animal products, such as beef and pork.

Sodium. Most adults are encouraged to limit sodium intake to 2,300 mg or less per day. This can be a huge challenging, considering most processed foods contain large amounts of this nutrient. You can look for items that claim to be "low sodium," but remember that even those items can add up quickly.

There are several nutrients on the nutrition facts label of which you are encouraged to consume adequate amounts on a daily basis. Thus, the information on the label can be used not only to limit certain nutri-

ents, but also to increase intake of other healthy nutrients. These include fiber, Vitamin A, Vitamin C and Iron. Most Americans do not consume adequate amounts of these vital nutrients.

Fiber. Most adults should aim to eat between 21 and 35 grams of fiber daily. One

By making more informed food decisions, you can build your confidence on the road to successful dietary changes.

way to reach this amount is to look for whole grains that have 3 grams or more of fiber per serving. You might find the nutrition facts label breaks down the fiber category further into soluble or insoluble. Both types of fiber are important in a daily meal plan, since soluble fiber can help lower cholesterol levels and insoluble fiber can help with digestion.

Vitamin A. One type of Vitamin A is beta-carotene, an antioxidant. Antioxidants protect cells from damage caused by substances called free radicals, which are thought to lead to aging and certain chronic diseases. One easy way to increase your intake of this antioxidant is to eat more brightly colored

yellow and orange fruits and vegetables, such as carrots and oranges.

Vitamin C. This vitamin also serves as an antioxidant. Most people think of citrus fruit when they think of vitamin C, but other good sources include red peppers, tomatoes and greens.

Iron. This mineral serves many purposes in your body. One of its most important functions is carrying oxygen to your cells. Iron is found naturally in many foods we eat regularly. However, iron in food comes in two forms: heme iron and nonheme iron. Heme iron is more readily absorbed and used in the body compared to nonheme iron. Both types are found in meat, seafood and poultry, whereas only nonheme iron is found in plant foods and iron-fortified food products.

Additionally, it is important to balance total carbohydrates and protein in your meal plan. Both nutrients are listed on the nutrition facts label in grams. There are three types of carbohydrates: sugars, starches and fiber. The total grams on the label include all three. One area of contention about the nutrition label is the fact that there is no distinction between natural sugars (for example, lactose in milk) and added sugars (for example, high-fructose corn syrup). Therefore, it may be hard to distinguish between products that have a lot of added sugars versus those that naturally contain some sugar. Experts recommend

"To you, it's the perfect lift chair. To me, it's the best sleep chair I've ever had."

— J. Fitzgerald, VA

Easy-to-use remotes for massage/heat and recline/lift



Complete with battery backup in case of power outage

Sit up, lie down — and anywhere in between!

We've all had nights when we just can't lie down in bed and sleep, whether it's from heartburn, cardiac problems, hip or back aches – it could be a variety of reasons. Those are the nights we'd give anything for a comfortable chair to sleep in, one that reclines to exactly the right degree, raises feet and legs to precisely the desired level, supports the head and shoulders properly, operates easily even in the dead of night, and sends a hopeful sleeper right off to dreamland.

Our Perfect Sleep Chair® is just the chair to do it all. It's a chair, true – the finest of lift chairs – but this chair is so much more! It's designed to provide total comfort and relaxation not found in other chairs. It can't be beat for comfortable, long-term sitting, TV viewing, relaxed reclining and – yes! – peaceful sleep. Our chair's recline technology allows you to pause the chair in an infinite number of positions, including the Trendelenburg position and the zero gravity position where your body experiences a minimum of internal and external stresses. You'll love the other benefits, too: It helps with correct spinal alignment,

promotes back pressure relief, and encourages better posture to prevent back and muscle pain.

And there's more! The overstuffed, oversized biscuit style back and unique seat design will cradle you in comfort. Generously filled, wide armrests provide enhanced arm support when sitting or reclining. The high and low heat settings along with the dozens of massage settings, can provide a soothing relaxation you might get at a spa – just imagine getting all that in a lift chair! Shipping charge includes white glove delivery. Professionals will deliver the chair to the exact spot in your home where you want it, unpack it, inspect it, test it, position it, and even carry the packaging away! Includes one year service warranty and your choice of fabrics and colors. If you're not 100% satisfied simply return the chair within 30 days for a refund of the product purchase price. – Call now!

The Perfect Sleep Chair®
Call now toll free for our lowest price.

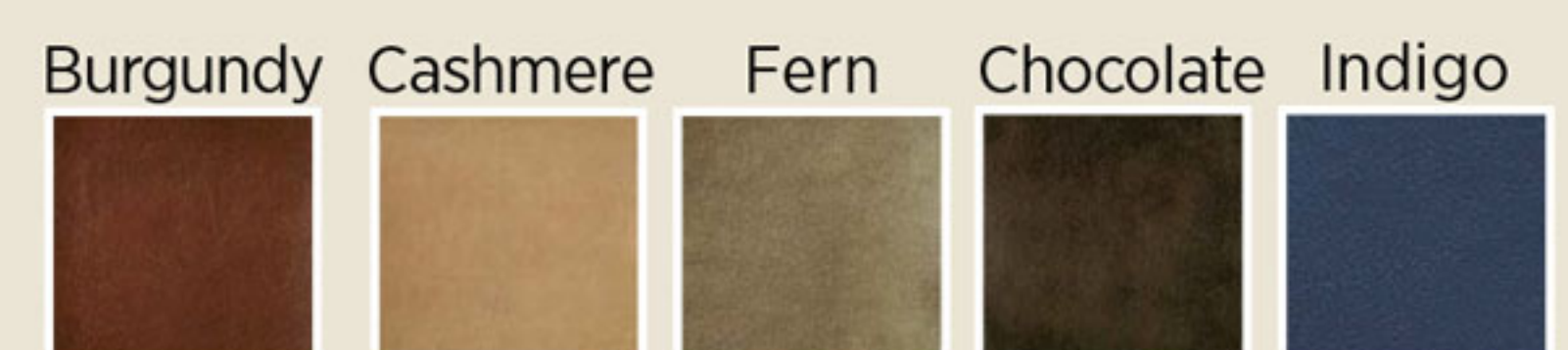
Please mention code 102384 when ordering.

1-888-602-3069

**Long Lasting
DuraLux Leather**



**DuraLux II
Microfiber**



© 2016 firstSTREET for Boomers and Beyond, Inc.

46383

that you eat whole-grain breads, cereals, rice and pasta, fruits and vegetables to have a good balance of all types of carbohydrates.

If you are trying to lose weight, it is always nice to have a little bit of protein with each snack and meal to help you feel gratified after eating. Therefore, you will want to look at the total amount of protein on the label to ensure that you are choosing a meal or snack that is balanced. Good, low-fat sources of protein include lean meat, poultry, fish, eggs, beans, legumes, nuts and skim or one percent milk, yogurt and cheese.

There still are a few items on the nutrition facts label that might provide additional insight into your food selections. One question many people have is, “What does the Percent Daily Value (%DV) mean?” First, it is important to note that the Percent Daily Value is for the whole day, not just one meal. Second, the Percent Daily Value gives you an idea of what percent of nutrient recommendations one serving of that item completes. Finally, all the Percent Daily Values are for a person eating 2,000 calories a day. This total is based on the need of a moderately active woman or a lightly active man. If you do not fall into one of these categories, your calorie needs, and subsequently your Percent Daily Values, would be higher or lower than those on the nutrition facts label.

When you are considering the Percent Daily Values, there are a few rules of thumb. If something has 5% or less, it is considered low in that nutrient. As mentioned, it would be ideal to aim for

Learn how to read Nutrition Facts labels

SAMPLE LABEL FOR COOKED PINTO BEANS

Food labels can help you make healthy food choices. Here are some tips for reading labels

- 1. **Check serving size.** The serving size gives the total number of calories and nutrients in one serving. There may be one or many servings in the package. One serving may be much smaller than you think.
- 2. **Check the calories.** How many calories do you eat in a day? The Nutrition Facts label is based on a 2,000 calorie diet, but your needs may be different.
- 3. **Choose foods wisely.** Select foods that are lower in saturated and trans fat, cholesterol and sodium.
- 4. **Select foods** that are higher in fiber and limit foods that contain added sugars.

For more information on reading nutrition labels, visit: www.choosemyplate.gov/downloads/NutritionFactsLabel.pdf.

Source: U.S. Department of Health & Human Services, National Institutes of Health, Centers for Disease Control and Prevention. Revised July 2013.

Nutrition Facts		
Serving Size: 1/2 cup (86g)		
Amount Per Serving		
Calories	120	Calories from Fat 5
% Daily Value*		
Total Fat	0.5g	1%
Saturated Fat	0.5g	0%
Trans Fat	0g	
Cholesterol	0mg	0%
Sodium	0mg	0%
Total Carbohydrate	22g	7%
Dietary Fiber	8g	32%
Sugars	0g	
Protein	8g	
Vitamin A		0%
Vitamin C		2%
Calcium		0%
Iron		10%

*Percent Daily Values are based on a 2,000 calorie diet. Your Daily Values may vary higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

low percent daily values for total fat, saturated fat, trans fat, cholesterol and sodium. On the other hand, if a serving has 20% or more of a nutrient, it is considered high. It would be to your benefit to choose items that have more than 20% daily values for fiber, vitamins and minerals.

Now that we have looked at the nutrition facts label from top to bottom, you have a reliable tool in your arsenal to make healthy food choices. The nutrition facts

label can be your best friend and guide you in positively monitoring your total calorie intake as well as knowing which nutrients to limit and which to maximize for a healthy, balanced meal plan. While at the grocery store, you can compare the labels of similar products and choose the ones that best meet your dietary goals. By making more informed food decisions, you can build your confidence on the road to successful dietary changes. And consider consulting a

registered dietitian—ideally one who specializes in weight management—to help you determine your individual needs for a healthy weight. ▣

Dr. Laura Hieronymus is a registered nurse and master licensed diabetes educator. She is affiliated with the College of Nursing and the Barnstable Brown Diabetes Center at the University of Kentucky in Lexington. **Liz Combs** is a registered dietitian, a director in the Dietetics and Human Nutrition Program and a doctoral candidate at the University of Kentucky in Lexington.

Introducing *The new and revolutionary* Jacuzzi® Hydrotherapy Shower.



AGING = PAIN

For many, arthritis and spinal disc degeneration are the most common source of pain, along with hips, knees, shoulders and the neck. In designing the Jacuzzi Hydrotherapy Shower, we worked with expert physicians to maximize its pain relieving therapy by utilizing the correct level of water pressure to provide gentle yet effective hydrotherapy.

JACUZZI® SHOWER = RELIEF



Four Jacuzzi® ShowerPro™ Jets focus on the neck, back, hips, knees and may help ease the pain and discomfort of:

- Arthritis
- Circulation Issues
- Aches and pains
- Neuropathy
- Sciatica
- Inflammation

The Jacuzzi® Hydrotherapy Shower provides a lifetime of comfort and relief... safely and affordably.

As we age, the occasional aches and pains of everyday life become less and less occasional. Most of us are bothered by sore muscles, creaky joints and general fatigue as we go through the day- and it's made worse by everything from exertion and stress to arthritis and a number of other ailments. Sure, there are pills and creams that claim to provide comfort, but there is only one 100% natural way to feel better... hydrotherapy. Now, the world leader in hydrotherapy has invented the only shower that features Jacuzzi® Jets. It's called the Jacuzzi® Hydrotherapy Shower, and it can truly change your life.

For over 50 years, the Jacuzzi® Design Engineers have worked to bring the powerful benefits of soothing hydrotherapy into millions of homes. Now, they've created a system that can fit in the space of your existing bathtub or shower and give you a lifetime of enjoyment, comfort and pain-relief. They've thought of everything. From the high-gloss acrylic surface, slip-resistant flooring, a hand-held shower wand, a comfortable and adjustable seat, to strategically-placed grab bars and lots of storage, this shower has it all.

Why wait to experience the Jacuzzi® Hydrotherapy Shower? Call now... it's the first step in getting relief from those aches and pains.



Call toll free now to get your FREE special report "Tips on Living to be 100"

Mention promotional code 102532.

1-844-594-5558





Take

STRETCHING

By Laurel Dierking, M.Ed., NFPT, 200-YTT

Does your daily routine consist of several hours of sitting in a chair behind a desk and/or facing a computer? If this is the case, the integrity of your joints, maintenance of muscle mass and flow of circulation—and certainly your mobility—are likely to suffer.

Stretching may be the most influential factor in long-term injury prevention, stability, performance improvement and maintenance for a healthy range of motion in your joints and limbs. Stretching is a vital component of functional wellness, which keeps your muscles lengthened, helps flush toxins from the blood, reduces tension and strain on the joints and allows for a safe, full range of motion with ease.

THERE ARE A FEW PARTICULAR COMPONENTS TO KEEP IN MIND WHEN STRETCHING, INCLUDING BODY ALIGNMENT, DURATION, FREQUENCY, INTENSITY AND BREATHING.

Alignment

When stretching, the most important factor determining the quality and efficiency of the stretch is body alignment. Alignment within the joints will ensure a safe and accurate stretch. “Stacking your joints” one on top of the other will minimize strain on the joints and ligaments, which are not designed to stretch intensely. A good rule of thumb is to keep your shoulders, hips and feet facing straight forward as your stretch. Keeping a soft bend in the knee, hip and elbow joints will ensure a more precise stretch in the belly of the muscle rather than on the soft tissue, which can lead to acute injury.

Duration and frequency

Stretches should be held for 15 to 30 seconds each as many as one to five (or more) times a day. A mild discomfort in the muscle (not in the joints) is normal. If you are stretching to the point of pain, ease back and find the point at which you can maintain the stretch more comfortably. You do not want to feel any sharp pain or burning in any joints.

Stretching is a long-term commitment. You should not expect to see immediate results after just one session. Due to the elasticity of the muscles, after stretching they will return to their original length. However, over the long term, stretching can create more permanent changes in the length of your muscles, which is why it will be the most important aspect of functional wellness as you age. As

with resistance training, your body must adapt. Be patient and know that each time you stretch, you are relieving tension on your joints and improving circulation in your body.

Breath and intensity

Breath is hands down the most important factor of a quality stretch. Breath allows you to naturally reduce tension you may feel from the discomfort of a stretch. There should never be any sharp pain while stretching. Stretch to the point of a manageable mild discomfort in the muscles. Breathing long, slow breaths through the nose creates internal heat in the body, which warms your muscles from the inside. Redirecting your attention to the breath (rather than to the potential discomfort) encourages your muscles and your mind to relax.

Stretching can be done seated, standing, in bed or on the floor. No matter what variation is available to you, stretching should be done every day. If your occupation or lifestyle keeps you seated for a majority of the day, begin to incorporate a regular gentle stretching routine into your day. For every hour spent sitting, spend a minimum of two to five minutes stretching and/or walking around.

Laurel Dierking MEd, NFPT, 200-YTT is a health and fitness professional and yoga instructor at JKFITNESS in San Antonio, Texas. She is passionate about cultivating awareness of body, mind and spirit through holistic health practices as she strives to guide individuals on a path to self-awareness, long-term functional fitness and weight-loss management.

Begin seated in an upright position with your spine elongated in good posture. Raise one leg and rest the ankle just above the opposite knee. Slowly hinge forward from your hips. Switch legs and repeat stretch. This seated stretch loosens your hips, glutes, lower back and even the hamstrings.



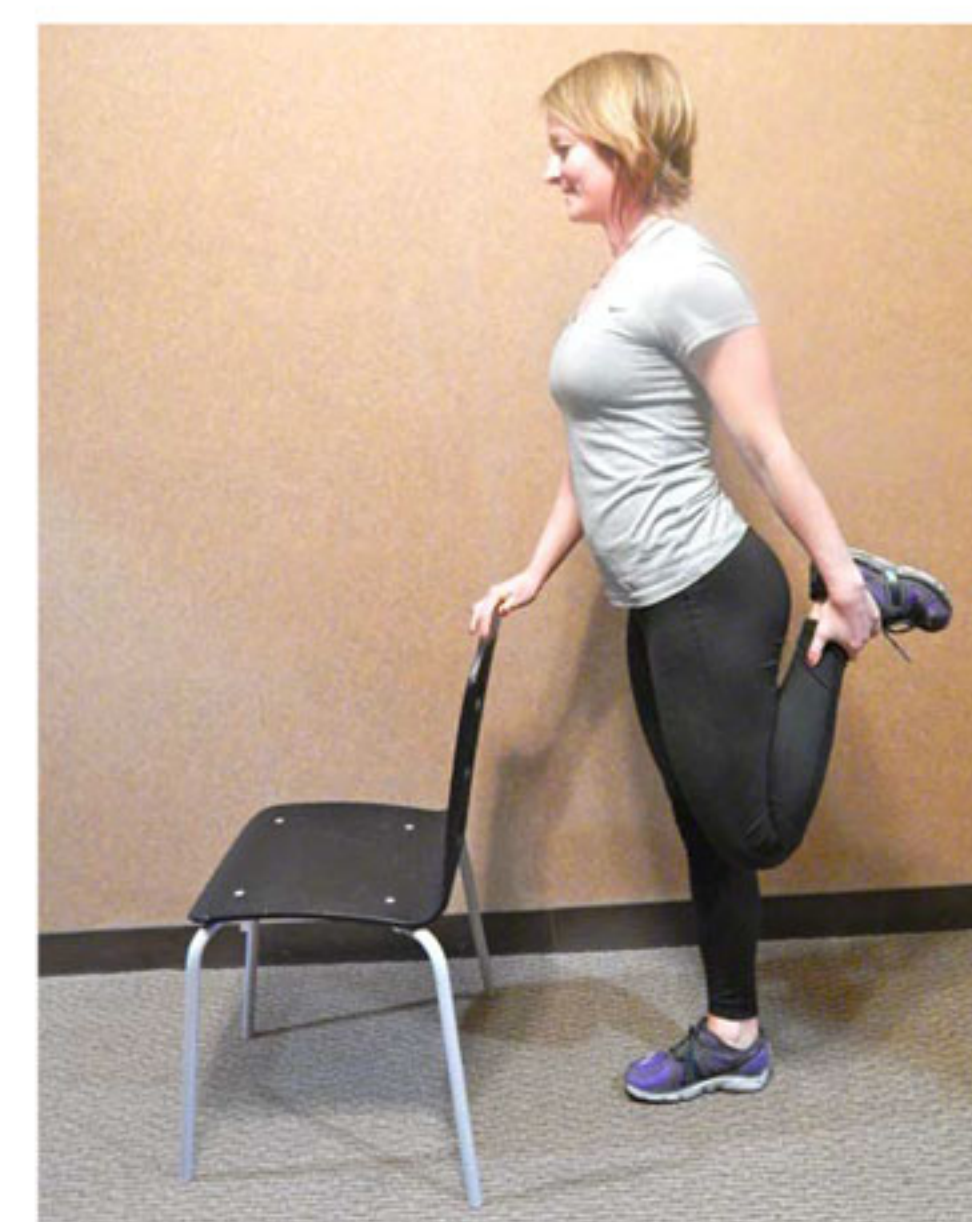
In your seat, extend one leg out in front of you with your toes pointing at the ceiling. With a flat back and long spine, reach your chest forward, hinging forward again from the hips. Stretching your hamstrings will help ease tension on the lower back from sitting.



Standing between a chair and a solid surface such as a wall, raise one leg out straight to the side and rest your foot on the chair, pressing the outside of your foot down. This will stretch your inner thighs, loosening tight muscles around the inside knee joints.



Standing facing or next to a wall or holding onto the back of a chair, bend one knee, lifting your leg behind you and reaching for your ankle. If you are unable to reach your ankle, use an exercise band or a belt around your ankle to help lift your leg. Keeping your knees aligned and together, pull your heel up toward your buttocks. This stretch will directly release tension on the knees as well as on the hip flexors, which shorten after extended periods of sitting.



Sitting for hours can diminish spinal and postural muscles quickly. Hunching forward causes your chest to tighten and back muscles to weaken. Reopen the chest by sitting straight at the front of your chair with both feet flat on the floor. Reach your arms behind you and grab the sides of the chair, lifting and stretching your chest.



Natalie Strand, M.D.

You might remember Natalie Strand, a physician specializing in chronic pain management, as the winner of the 2010 season of CBS' *The Amazing Race*. Not only was she part of the first all-women team to win, she also was the first contestant with diabetes.

A lot has changed for Nat over the last five years. For one, she now is married, a new mom and pregnant with her second child. For another, she has embraced her celebrity status to become involved with the diabetes community through dLife, BEYOND TYPE 1, Colgate, Diabetes Sisters and JDRF, sharing her story to help others and raise awareness.

DSM: Despite being diagnosed with Type 1 at age 12, you have led an active life that has included running half marathons, scuba diving, biking and skiing. Has diabetes presented challenges to these activities? Or has living with diabetes made you more driven to take on physical challenges?

NS: Well, having a baby, being pregnant and nursing over the last two years, my lifestyle today is much different than it was in 2010. At that time, I was very active. The timing of *The Amazing Race* was just as I was coming out of medical school, residency and internship. Having been completely focused on becoming a physician, I was really itching for balance in the universe, to break out of my life and do something big. *The Amazing Race* offered that. I've always had that yearning for balance, when one part of your life takes so much of your time. That's what scuba diving, travel,

The Amazing Race do—they are empowering, rejuvenating experiences that fill the well, so to speak.

Does diabetes motivate me to prove I can still do it? I'll say this: I don't think having diabetes makes me do things I otherwise wouldn't do. However, I'm very adamant that I will never let diabetes stand between me and a good adventure! It certainly can be a challenge, but I have never allowed diabetes to become a limitation.

DSM: Tell us a little about your work. Does being a medical professional make you better, or worse, at managing your diabetes?

NS: I work in interventional, chronic pain management, focusing on patients who live with chronic pain syndromes. I take a multi-modal, comprehensive approach to the management of pain. A lot of what I do overlaps with living with Type 1, which definitely

helps me manage my diabetes. All day long, I talk with patients about the importance of weight management, stress management—it spills over into my personal life.

On the other hand, there were times, such as during my residency, when it was harder to manage my diabetes. It definitely took a backseat. Now that I have a better work/life balance, my career helps me better manage my diabetes.

DSM: After you signed on for *The Amazing Race* in 2010, you found out the producers refused to carry additional insulin or other health supplies and you would need to carry a full month of supplies in the one backpack you were limited to carrying. Were you nervous about being able to keep your diabetes in check?

NS: Nervous? Absolutely. That's *The Amazing Race* rule: One backpack, that's it. It actually made it harder for me than for other contestants. I had to make sure I had enough test strips, insulin, syringes, glucose meters, a glucagon emergency kit and snacks. Unforeseen things can happen in a month, especially on the road in several different countries. Packing was the first big challenge—I worked with my health-care team. I famously said I didn't even have room for a hairbrush—going on national TV for a month without a hairbrush is its own challenge!

I felt safe most of the time.



Nat has shared her story at JDRF community events around the country, including in Washington, Minnesota, Texas, Montana, California, Arizona and Washington, D.C. Currently, she serves on the council of the new nonprofit organization co-founded last year by Nick Jonas, BEYOND TYPE 1, which seeks to build a community to combat isolation and eradicate the stigma of living with a chronic illness. Says Nat, "It's fantastic. It's putting a new face on diabetes."

Being a physician and doing the race with another physician [Kat Chang] certainly helped. Kat carried some supplies in her backpack as well.

DSM: During *The Amazing Race*, were you concerned about living with the realities of diabetes in front of millions of viewers?

NS: While the race was happening, I was so distracted I wasn't thinking about it. You're not thinking about being on TV; you're too focused doing the actual race. But after the race while I was waiting for it to air, that's when I worried. It made me uncomfortable—I was worried about being judged. For example, once I was driving and stuck my finger in the back seat for Kat to test my blood sugar. Or struggling with highs—when they aired my blood sugar at 300, those things usually are private.

But the outcome was very positive. Sharing your diabetes can be both good and bad, but it ended up bringing me so much support.

DSM: Upon winning *The Amazing Race*, you used your newfound celebrity to educate, increase awareness and advocate for the diabetes community. Are you still involved?

NS: Absolutely. Since that time, I've been very lucky to be invited to participate with several wonderful organizations to share my story, and I serve on the council for BEYOND TYPE 1.

I also reach out on a personal level. For example, last week a girl on my street was diagnosed with Type 1 diabetes. I went over and shared my tips and tricks. She's 16 and had questions about going to college, dating, etc. Doing things at a one-to-one level is wonderful.

When you get a little bit of publicity, a lot of people reach out. I try to answer all of the letters and phone calls I receive. I try to do whatever I can; I know that in the beginning, diabetes can be so overwhelming. I'm on the other side of

a lot of things now—college, medical school, dating, *The Amazing Race*, becoming a wife and mother—so I try to share my story as much as possible to let other women know that everything is possible.

DSM: What advice would you give someone newly diagnosed?

NS: Number one is not to let the amount of information overwhelm you and to try as much as possible to stay

positive. So much of what you hear are things you have to do, have to change. The best way to stay positive is to connect with other people who have lived well with diabetes. I did not connect with the diabetes community at all until after *The Amazing Race*. That was a loss for me.

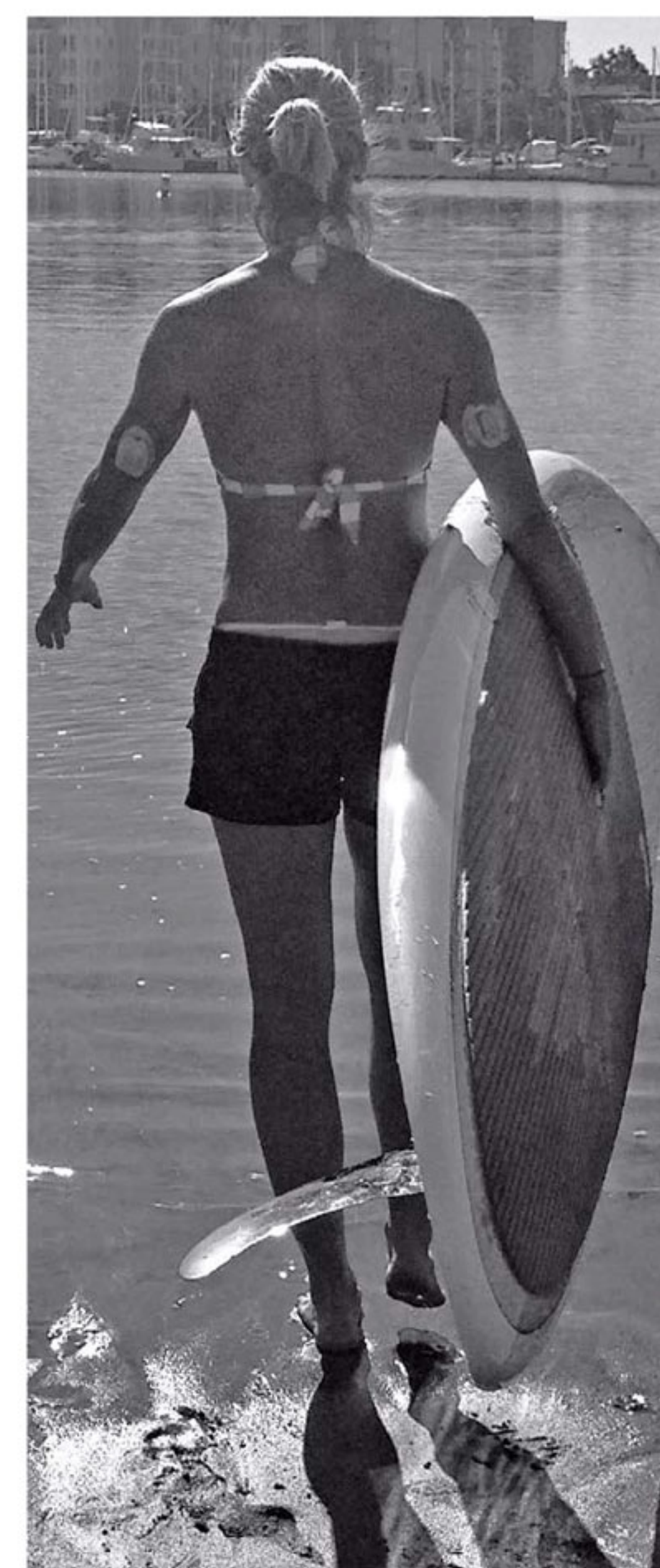
Connecting made it so much easier. Whatever phase you're in, someone has been through it already. As a new mom, being able to connect with others who have children is inspiring. Whether meeting long-distance runners with diabetes or 75-year-olds living complication-free with diabetes, connecting with the diabetes community has been an overwhelming source of support and an amazing resource.

I never stop learning from others with diabetes, even though I've had it for 25 years. ■

—Cheryl Rosenfeld



Nat took trapeze lessons while filming a promotional video for Big Blue Test with Tu Diabetes, and continued taking classes after because they were so much fun. During her last Rock and Roll half marathon, below, she sports a blue tutu in honor of diabetes and takes a quick break to test her blood sugar. Right, Nat heads out to paddle board, wearing her Dexcom on her right arm and her OmniPod on her left.



PRODUCT SPOTLIGHT

Livliga

Elegant portion control for the dinner table

PORTION CONTROL isn't just crucial for weight loss and general healthy well-being. It's also a critical component of diabetes management. If you eat more than your recommended daily intake—even accidentally—your blood glucose levels can spike.

Measuring your food and monitoring your intake closely are the only ways to know if you're succeeding in your recommended meal plan. Unfortunately, this isn't always practical. Scales and measuring cups have no place on the table when you're entertaining dinner guests. Who wants to portion out mashed potatoes with a measuring spoon?

That's why we appreciate Livliga's line of "elegant portion control" dinnerware. The abstract designs on each Livliga plate aren't just visually appealing; they correspond to the U.S. Department of Agriculture's (USDA) serving size recommendations. They're smaller than standard dinner plates to help make portions look larger on your plate, and they're dishwasher safe to boot.

Livliga's Livspoons offer an elegant way to monitor your portions at the dinner

table, neatly hanging on the side of serving bowls without signaling to guests that they're actually measuring spoons, while etched wine glasses feature subtle fill lines to avoid overindulgence.

Sheila Kemper Dietrich, founder of Livliga, says she's struggled with weight issues for most of her life. After finding success with hand-painted dinnerware to help control portions, Dietrich and her husband decided to create Livliga. To this day, her family has lost a total of 113 pounds.

Dietrich also launched Kidliga dinnerware, which is designed to be a fun way for kids to learn about portion control. The plates and bowls correspond with a children's book *Sammie & Sax in the Land of Quinoa: The Search for a Balanced Meal*, which won the 2013 Moonbeam Children's Book Award Bronze Medal for Health Issues.

"Kidliga was developed to teach children about the importance of establishing healthy eating habits in the earlier part of their development, when many of life's habits are formed. We've created a product that communicates this message effectively, at their level," Dietrich says.

"We have moms who talk about how their children are exploring more types of food because the Kidliga plates encourage it. One mom recently shared how much she loves to read *Sammie and Sax* to her kids at bedtime because it's helping her teach an important lesson about healthy eating, and it's also just the right length for a bedtime story."

"We set out to create a product to support people in right-sized, healthy eating as part of a healthy lifestyle," Dietrich says. "Our feedback is that we are doing just that. And we are only just getting started." ▣

—Nicki Porter



Prices vary • Livligahome.com

Brief Summary of Information about VICTOZA® (liraglutide [rDNA origin] injection)



Rx Only

This information is not comprehensive. How to get more information:

- Talk to your health care provider or pharmacist
- Visit www.novo-pi.com/victoza.pdf to obtain the FDA-approved product labeling
- Call 1-877-484-2869

What is the most important information I should know about Victoza®?

Victoza® may cause serious side effects, including:

- **Possible thyroid tumors, including cancer.** Tell your healthcare provider if you get a lump or swelling in your neck, hoarseness, trouble swallowing, or shortness of breath. These may be symptoms of thyroid cancer. In studies with rats and mice, Victoza® and medicines that work like Victoza® caused thyroid tumors, including thyroid cancer. It is not known if Victoza® will cause thyroid tumors or a type of thyroid cancer called medullary thyroid carcinoma (MTC) in people.
- Do not use Victoza® if you or any of your family have ever had a type of thyroid cancer called medullary thyroid carcinoma (MTC), or if you have an endocrine system condition called Multiple Endocrine Neoplasia syndrome type 2 (MEN 2).

What is Victoza®?

Victoza® is an injectable prescription medicine that may improve blood sugar (glucose) in adults with type 2 diabetes mellitus, and should be used along with diet and exercise.

- Victoza® is not recommended as the first choice of medicine for treating diabetes.
- It is not known if Victoza® can be used in people who have had pancreatitis.
- Victoza® is not a substitute for insulin and is not for use in people with type 1 diabetes or people with diabetic ketoacidosis.
- It is not known if Victoza® can be used with mealtime insulin.
- It is not known if Victoza® is safe and effective for use in children.

Who should not use Victoza®?

Do not use Victoza® if:

- you or any of your family have ever had a type of thyroid cancer called medullary thyroid carcinoma (MTC) or if you have an endocrine system condition called Multiple Endocrine Neoplasia syndrome type 2 (MEN 2).
- you are allergic to liraglutide or any of the ingredients in Victoza®.

What should I tell my healthcare provider before using Victoza®?

Before using Victoza®, tell your healthcare provider if you:

- have or have had problems with your pancreas, kidneys, or liver
- have severe problems with your stomach, such as slowed emptying of your stomach (gastroparesis) or problems with digesting food
- have any other medical conditions
- are pregnant or plan to become pregnant. It is not known if Victoza® will harm your unborn baby. Tell your healthcare provider if you become pregnant while using Victoza®.
- are breastfeeding or plan to breastfeed. It is not known if Victoza® passes into your breast milk. You should not use Victoza® while breastfeeding without first talking with your healthcare provider.

Tell your healthcare provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements.

Victoza® may affect the way some medicines work and some medicines may affect the way Victoza® works.

Before using Victoza®, talk to your healthcare provider about low blood sugar and how to manage it. Tell your healthcare provider if you are taking other medicines to treat diabetes, including insulin or sulfonylureas.

Know the medicines you take. Keep a list of them to show your healthcare provider and pharmacist when you get a new medicine.

How should I use Victoza®?

- **Do not share your Victoza® pen with other people, even if the needle has been changed.** You may give other people a serious infection, or get a serious infection from them.

Your dose of Victoza® and other diabetes medicines may need to change because of:

- change in level of physical activity or exercise, weight gain or loss, increased stress, illness, change in diet, or because of other medicines you take.

What are the possible side effects of Victoza®?

Victoza® may cause serious side effects, including:

- See “What is the most important information I should know about Victoza®?”

- **inflammation of your pancreas (pancreatitis).** Stop using Victoza® and call your healthcare provider right away if you have severe pain in your stomach area (abdomen) that will not go away, with or without vomiting. You may feel the pain from your abdomen to your back.
- **low blood sugar (hypoglycemia).** Your risk for getting low blood sugar may be higher if you use Victoza® with another medicine that can cause low blood sugar, such as a sulfonylurea or insulin.

Signs and symptoms of low blood sugar may include:

- | | | | |
|---------------------------------|------------------|--|-------------------|
| • dizziness or light-headedness | • blurred vision | • anxiety, irritability, or mood changes | • sweating |
| • slurred speech | • hunger | • confusion or drowsiness | • shakiness |
| • weakness | • headache | • fast heartbeat | • feeling jittery |

- **kidney problems (kidney failure).** In people who have kidney problems, diarrhea, nausea, and vomiting may cause a loss of fluids (dehydration) which may cause kidney problems to get worse.

- **serious allergic reactions.** Stop using Victoza® and get medical help right away, if you have any symptoms of a serious allergic reaction including itching, rash, or difficulty breathing.

The most common side effects of Victoza® may include headache, nausea, diarrhea, vomiting, anti-liraglutide antibodies in your blood.

Talk to your healthcare provider about any side effect that bothers you or does not go away. These are not all the possible side effects of Victoza®.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

Victoza® is a registered trademark of Novo Nordisk A/S.

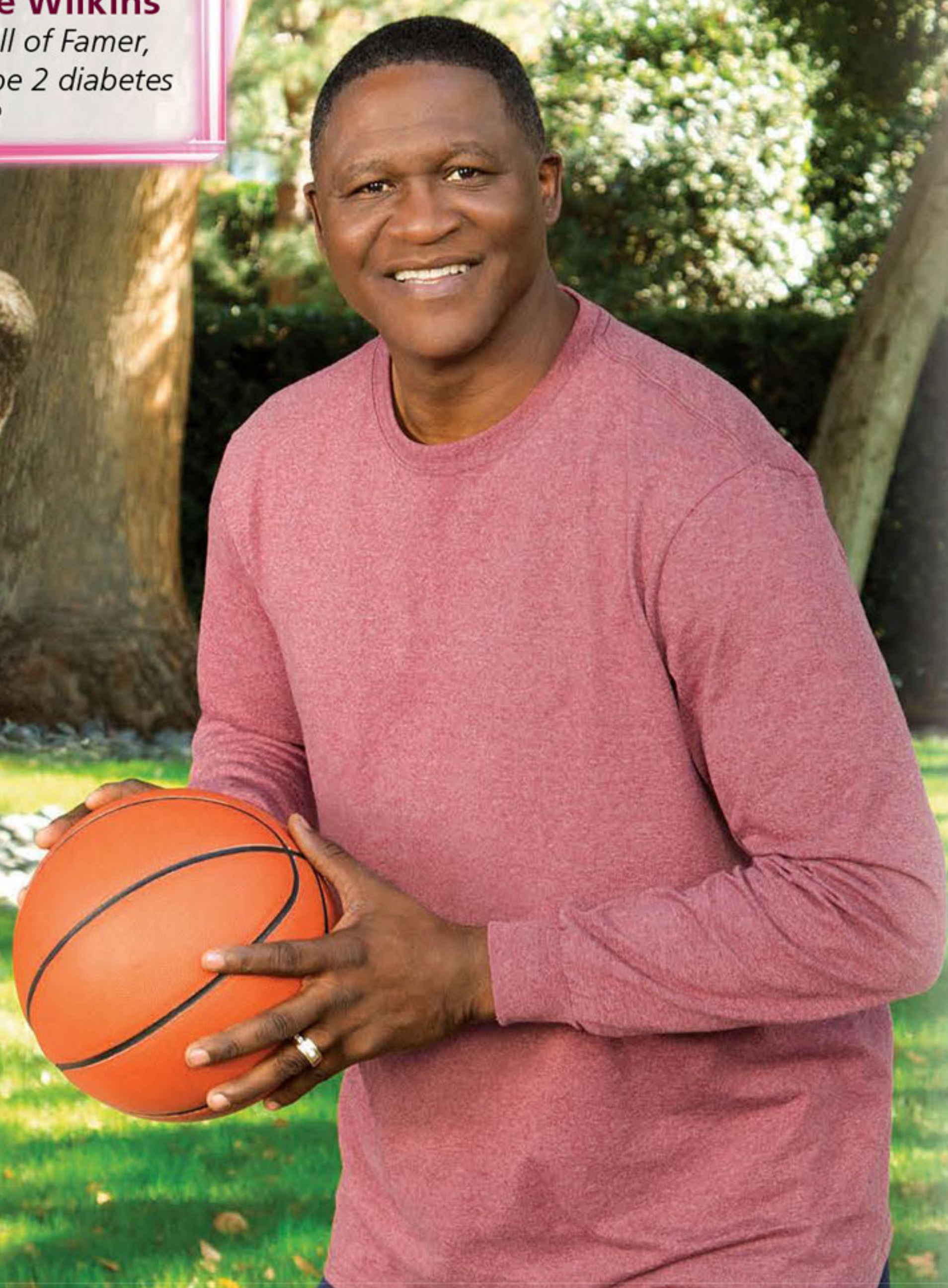
Revised: March 2015

© 2015 Novo Nordisk

0315-00025908-1 4/2015



Dominique Wilkins
Basketball Hall of Famer,
managing type 2 diabetes
with Victoza®



“When my diabetes pill
didn’t get me to goal,
I asked my doctor about
non-insulin Victoza®.”

Dominique Wilkins

Here’s what I learned:

- ✓ **Victoza® starts to lower blood sugar in as soon as 2 weeks, lowers A1C,^a and keeps it down^b**
- ✓ Victoza® comes in a prefilled Pen I use just once a day, any time, so it fits into my busy life
- ✓ While not a weight-loss product, Victoza® may help me lose some weight^c

^cIn our largest study, when added to metformin, people lost on average up to 6.2 pounds.

Victoza® is different than pills because it works like a hormone—GLP-1—to help control blood sugar.

**If your pill isn’t giving you the control
you need, ask your doctor about Victoza®.
Visit victoza.com or
call 1-866-821-7406 to learn more.**



Non-insulin • Once daily

^aVictoza® 1.8 mg, taken alone or in combination with diabetes pills, lowered A1C by 1.0 to 1.5 points, on average, as shown in medical studies.

^bVictoza® has been shown to keep A1C down in a 2-year medical study.

Individual results may vary.

Pay no more than \$25 for your Victoza® prescriptions.^d Find out more at victoza.com

What is Victoza®?

Victoza® is an injectable prescription medicine that may improve blood sugar (glucose) in adults with type 2 diabetes, and should be used along with diet and exercise.

- Victoza® is not recommended as the first choice of medicine for treating diabetes.
- It is not known if Victoza® can be used in people who have had pancreatitis.
- Victoza® is not a substitute for insulin and is not for use in people with type 1 diabetes or people with diabetic ketoacidosis.
- It is not known if Victoza® can be used with mealtime insulin.
- It is not known if Victoza® is safe and effective for use in children.

What is the most important information I should know about Victoza®?

Victoza® may cause serious side effects, including:

- **Possible thyroid tumors, including cancer.** Tell your health care provider if you get a lump or swelling in your neck, hoarseness, trouble swallowing, or shortness of breath. These may be symptoms of thyroid cancer. In studies with rats and mice, Victoza® and medicines that work like Victoza® caused thyroid tumors, including thyroid cancer. It is not known if Victoza® will cause thyroid tumors or a type of thyroid cancer called medullary thyroid carcinoma (MTC) in people.

Who should not use Victoza®?

Do not use Victoza® if:

- you or any of your family have ever had a type of thyroid cancer called medullary thyroid carcinoma (MTC) or if you have an endocrine system condition called Multiple Endocrine Neoplasia syndrome type 2 (MEN 2).
- you are allergic to liraglutide or any of the ingredients in Victoza®.

What should I tell my health care provider before using Victoza®?

Before using Victoza®, tell your health care provider if you:

- have or have had problems with your pancreas, kidneys, or liver.
- have any other medical conditions or severe problems with your stomach, such as slowed emptying of your stomach (gastroparesis) or problems with digesting food.
- are pregnant or breastfeeding or plan to become pregnant or breastfeed.

Tell your health care provider about all the medicines you take, including prescription and over-the-counter medicines, vitamins, herbal supplements, and other medicines to treat diabetes, including insulin or sulfonylureas.

How should I use Victoza®?

- **Do not** mix insulin and Victoza® together in the same injection.
- You may give an injection of Victoza® and insulin in the same body area (such as your stomach area), but not right next to each other.
- **Do not share your Victoza® pen with other people, even if the needle has been changed.** You may give other people a serious infection, or get a serious infection from them.

What are the possible side effects of Victoza®?

Victoza® may cause serious side effects, including:

- **inflammation of your pancreas (pancreatitis).** Stop using Victoza® and call your health care provider right away if you have severe pain in your stomach area (abdomen) that will not go away, with or without vomiting. You may feel the pain from your abdomen to your back.
- **low blood sugar (hypoglycemia).** Your risk for getting low blood sugar may be higher if you use Victoza® with another medicine that can cause low blood sugar, such as a sulfonylurea or insulin. **Signs and symptoms of low blood sugar may include:** dizziness or lightheadedness, blurred vision, anxiety, irritability or mood changes, sweating, slurred speech, hunger, confusion or drowsiness, shakiness, weakness, headache, fast heartbeat, and feeling jittery.
- **kidney problems (kidney failure).** In people who have kidney problems, diarrhea, nausea, and vomiting may cause a loss of fluids (dehydration), which may cause kidney problems to get worse.
- **serious allergic reactions.** Stop using Victoza® and get medical help right away if you have any symptoms of a serious allergic reaction including itching, rash, or difficulty breathing.

The most common side effects of Victoza® may include headache, nausea, diarrhea, vomiting, and anti-liraglutide antibodies in your blood.

Please see Brief Summary of Important Patient Information on next page.

^dMaximum savings of \$100 per prescription up to 24 months. Additional restrictions may apply. Novo Nordisk reserves the right to modify or cancel these offerings at any time.

Victoza® is a prescription medication.

If you need assistance with prescription drug costs, help may be available. Visit pparx.org or call 1-888-4PPA-NOW.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.



Victoza® is a registered trademark of Novo Nordisk A/S.
Novo Nordisk is a registered trademark of Novo Nordisk A/S.
© 2016 Novo Nordisk All rights reserved. USA15VIM01775

March 2016

VICTOZA®
liraglutide (rDNA origin) injection