

The Mediterranean diet is generally claimed to be healthy and preventive nutrition. The major components of the "classical" Mediterranean diet are fruits, vegetables, olive oil, carbohydrates (pasta, bread) and fish more than meat. The amount of plant-derived nutrients including edible oils in the Mediterranean diet exceeds two to three fold that in the western diet. The question which was addressed at the 3rd Godesberg Nutrition Forum was whether the Mediterranean diet can be achieved in northern Europe with local products. Indeed, the articles in the present supplement describe and summarize the benefit of the Mediterranean diet and sources of "Mediterranean" food in non-Mediterranean countries. From intervention studies in Finland and southern Italy it was documented that a Mediterranean diet with local food can indeed improve the cardiac risk profile. The low amount of saturated fat versus high monounsaturated fat in the diet contributes to this improvement. The benefit of monounsaturated fats present in olive oil in the Mediterranean area can be easily achieved via rape seed oil, which is also rich in monounsaturated fats. Regarding the Mediterranean diet the total energy from fat is adequate up to 35% if the diet is rich in plant-derived food and as long there is proper physical activity. Accordingly milk and milk products as a source for fat is a component of the Mediterranean diet. However, milk and Mediterranean milk products such as Ricotta and Mascarpone made from whey and cream contain the highly valuable whey proteins. Beside the bioactive compounds derived from plant foods in the Mediterranean diet, foods rich in vitamin E are also important components. The major source of vitamin E is edible plant (germ) oils. In contrast, olive oil has a rather low vitamin E content, which is less than the concentration in rape seed oil. Vitamin E is claimed to be protective against atherosclerosis by regulating key events in the cellular pathogenesis of this degenerative disease. Consequently a high intake of vitamin E may protect from coronary heart disease (CHD). In southern Italy the daily consumption of vegetable oil is twice as high as in northern Italy. The lower intake of saturated fats might be responsible for the lower rate of CHD and diabetes. The lower diabetes incidence in Mediterranean countries might be also due to a higher intake of fiber and food with a lower glycemic load. However up to now this has not been clearly elucidated. Finally the major question whether the Mediterranean diet can be realized in middle and northern Europe can be clearly answered with yes. A transformation of components of the Mediterranean diet, however, is not the only way to prevent CHD and diabetes. It is also the life style and social and cultural aspects which contribute to prevention and the genes. Taken together the results of the 3rd Godesberg Nutrition Forum published in this supplement are a good basis to understand the components of the Mediterranean diet and the way how these components can be integrated into German food traditions.

Prof. Dr. med. Hans K. Biesalski
Biological Chemistry and Nutrition
University of Hohenheim
Fruwirthstrasse 12
70593 Stuttgart, Germany
E-Mail: biesal@uni-hohenheim.de