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## Milk and dairy products - dietary recommendations and current intakes

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Milk and dairy products (e.g. yoghurt, cheese, whey products) are fundamental elements of traditional Western diets. Major constituents of milk/dairy products include protein, fat, carbohydrates, vitamins, minerals and trace elements. Fermented milk products further contain a range of beneficial bacterial products generated during fermentation. Traditionally, milk/dairy products make a substantial contribution to the overall intake of proteins, vitamins B2 and B12 as well as of calcium and zinc, and thereby contribute to overall diet quality.

Dietary recommendations of many national nutritional institutions in the Western world reflect the high nutritional value of these foods. Within Europe, the recommendation for the intake of milk/dairy products ranges from 250 g/d (Germany) to 568 g/d (United Kingdom). Similarly high recommendations are made in the Dietary Guidelines for the Americans 2010 (USA) and in the Australian Dietary Guidelines. All recommendations emphasize the intake of low-fat rather than full-fat dairy products to benefit from the higher nutrient density.

Recent European national consumption surveys give an overview of the current intake of milk/dairy products. Northern European countries, such as Finland, continue to have a high intake (FINDIET 2007, adults: F 367 g/d; M 445 g/d); similar high intakes were reported for the Netherlands (DNFCS 2007-2009, adults: F 296 g/d; M 334 g/d). Significantly lower intake levels were reported for France (INCA2 2006-2007, adults: F 217 g/d; M 208 g/d), Germany (NVS II 2006-2008, adults: F 197 g/d, M 202 g/d), and Italy (INRAN-SCAI 2005-2006, adults: F 183 g/d; M 157 g/d). The overall trend for the consumption of milk/dairy products suggests a decline in the consumption of milk in Western countries, while the intake of cheese is increasing.

Based on the current consumption level of milk/dairy products in Germany which provide 12 % of total energy intake, milk/dairy products contribute 40 % of calcium intake, 27 % of the intake of vitamins B2 and B12, 19 % of the protein intake and 17 % of the zinc intake. However, besides calcium, the total intake of these nutrients already exceeds dietary recommendations. Similar contributions of milk/dairy products to the total intake of micronutrients have been reported for other Western countries including the Netherlands and France.

In conclusion, milk/dairy products are recommended by major nutrition institutions in the Western world. Although the intake of milk/dairy products is slightly decreasing, they still contribute a significant amount to the overall intake of key essential nutrients in human nutrition.