



NORDIC NUTRITION RECOMMENDATIONS

# Nordic Nutrition Recommendations focus on quality and the whole diet



The new edition of the Nordic Nutrition Recommendations (NNR 2012) puts the whole diet in focus while also setting recommended intakes for specific nutrients. The NNR 2012 - the fifth of its kind integrates features of dietary patterns, recommended nutrient intakes and physical activity that will contribute to overall good health and to a reduction of dietrelated diseases. An evidencebased and transparent procedure has been used to set dietary reference values (DRVs) that can be applied in the Nordic countries. Overall, the NNR 2012 also has a focus on the quality of our food and which specific sources we get our various nutrients from, not just on the quantities of e.g. fat and carbohydrates we eat.

# **Results and conclusions**

The Nordic Nutrition Recommendations 2012 give Dietary Reference Values (DRVs) for nutrient intakes. Also, more emphasis has been put on evaluating scientific evidence for the role played by dietary patterns and food groups that could contribute to the prevention of the major diet-related chronic diseases. Nutrition research has traditionally strived to identify the specific mechanisms and health impact of single nutrients. However, most food items contain many nutrients as well as bioactive substances that interact with each other.

Typical features of a healthy dietary pattern as described in NNR 2012 include plenty of vegetables, fruit

and berries, pulses, regular intake of fish, vegetable oils, wholegrain, low-fat alternatives of dairy and meat, and limited intake of red and processed meat, sugar, salt and alcohol.

### Recommendations

The DRVs in NNR2012 emphasize fat and carbohydrate quality, e.g. favouring monounsaturated fatty acids (MUFA), polyunsaturated fatty acids (PUFA), and dietary fibre and encourages a limitation of saturated and trans fatty acids along with added sugars when planning and evaluating diets.

- Recommended intake ranges for cis-MUFA has been changed from 10-15 E% to 10-20 E%.
- Ranges for other fatty acid categories remain, i.e. saturated fatty acids (SFA) should be < 10 E%, and cis-PUFA should be 5–10 E%.
- Population range for total fat intake has been adjusted to 25-40 E%, compared to 25-35 E% in NNR 2004.
- Recommended intake for dietary fibre is at least 25–35 g/d (>3 g/MJ) from foods naturally rich in fibre such as wholegrain, fruit and berries, vegetables, and pulses.
- A limitation of added sugars to less than 10 E% is recommended.
- For total carbohydrates the population range is 45-60 E% compared to 50-60 E% in NNR 2004.
- For protein, the recommendations are given both as population ranges expressed as E% (10-20 E%) and as a recommended intake in g/kg body weight per day.

The Recommended Intake (RI) for vitamin D is increased from 7.5 microgram to 10 microgram per day for children above 2 years and adults and to 20 microgram per day for elderly  $\geq$  75. Also, the RI for selenium (i.e. in adults) is increased from 40 to 50 and 50 to 60 microgram per day (females and males, respectively) and from 50 to 55 microgram per day (pregnant and lactating women).

For physical activity, recommendations are given for time spent at moderate-intensity (≥150 min/ week) or vigorous intensity (≥75 min/week) for adults and at least 60 min/day moderate- and vigorous intensity, equally distributed, for children.

### **Background and process**

The Nordic Nutrition Recommendations (NNR) have been published every eight years since 1980. The Nordic countries have thus collaborated on setting guidelines for dietary composition and recommended intakes of nutrients for several decades. The 4th edition of NNR was published in 2004 by the Nordic Council of Ministers. The Nordic Nutrition Recommendations are the result of a thorough evaluation of all research globally relevant for the Nordic setting within the field of nutrition.

#### What are the NNR?

The NNR is a scientific policy document that gives reference values for the intake of and balance between individual nutrients which, based on current scientific knowledge, are adequate for development and optimal function of the human body and reduce the risk of major diet-related diseases.

The NNR are the main reference point for the various national nutrition recommendations in the Nordic countries and the major tool to evaluate the adequacy of dietary intakes in the Nordic populations. The NNR are also at the core of academic teaching in the field of nutritional science and serve as a corner stone within the nutrition profession.

The Nordic governments fund the extensive scientific effort behind the Nordic Nutrition Recommendations as a means to better guide public decisions and inform the debate on which diet ensures the best possible health for the population at large. This effort forms part of the Nordic action plan "A better life through diet and physical activity".

The Nordic Nutrition Recommendations furthermore form the basis for the Nordic "Keyhole"-label, used widely in the retail sector to designate the best available choice within a certain category of food or commodity.

# How are the NNR made?

The work on the new edition is part of a long and fruitful Nordic co-operation under the Nordic Council of Ministers.

The work has been led by a Nordic working group. More than 100 scientific experts have been involved and an evidence-based approach has been used, assessing associations between dietary patterns, foods and nutrients and specific health outcomes.

Systematic reviews (SR), covering the years 2000–2012, have been applied for selected nutrients/ topics, including a quality assessment of all pertinent studies and a grading of the overall evidence. A less stringent update has been done for some nutrients/topics. Peer reviewers have also been engaged in the process to read and comment on the SRs and the updates conducted by the expert groups.

The systematic reviews and the updates have formed the basis for deriving the dietary reference values (DRVs). The DRVs aim to guarantee optimal nutrition and to prevent lifestyle related diseases such as cardiovascular disease, osteoporosis and certain types of cancer, type 2 diabetes, obesity and related risk factors.

This evaluation has been done by the NNR working group. All drafts were subject to an open public consultation. You can see more on the public consultation process at www.nnr5.org

The Nordic Council of Ministers Committee of senior officers for foods (EK-FJLS Food) will formally approve the Nordic Nutrition Recommendations during the fall of 2013 and the new edition will be published in full after that.

### Publication

The NNR 2012 is published in print, as well as on-line. For the first time, the NNR is also Open Source and it is thus available as a pdf free of charge. The individual chapters can also be bought in a value added version at a very low cost. Finally, the NNR 2012 is available in its entirety as an ebook.

For more information on publication, please refer to norden.org/nnr

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