

# Dutch dietary guidelines for people with atherosclerotic cardiovascular disease

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## Executive summary

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Health Council of the Netherlands

In the *Dutch dietary guidelines 2015*, the Health Council of the Netherlands specifies the recommended intake of foods and beverages to prevent chronic diseases. These guidelines are meant for the general Dutch population. This group also includes the roughly 1.5 million people with chronic cardiovascular diseases, such as a previous heart attack (myocardial infarction), a stroke and peripheral arterial disease (intermittent claudication). In many cases these cardiovascular diseases are caused by atherosclerosis. However, for the *Dutch dietary guidelines 2015* it was not separately assessed whether the guidelines were fully tailored to people with atherosclerotic cardiovascular disease. It is possible that disease-specific adjustments or additions are needed for this group. At the request of the State Secretary for Health, Welfare and Sport, the Health Council of the Netherlands is now issuing specific advice on this matter. The Permanent Committee on Nutrition prepared the advisory report.

### **Dietary guidelines an appropriate basis**

The *Dutch dietary guidelines 2015* contain specific guidelines for the consumption of foods and beverages. The Committee evaluated whether the guidelines for dairy products, fish, fats and oils, coffee, meat, alcohol and table salt are also appropriate for people with atherosclerotic cardiovascular disease. The point of departure here is that the *Dutch dietary guidelines 2015* form an appropriate basis, unless proven otherwise.

The selection of the foods and beverages for evaluation was based on existing national and international dietary guidelines for people with cardiovascular disease and on the expert judgement of the Committee. For its evaluation, the Committee used the same health outcomes as for the *Dutch dietary guidelines 2015*: morbidity and mortality caused by the top ten chronic diseases in the Netherlands, body weight, LDL cholesterol level and blood pressure. For the current advisory report, the Committee also evaluated all-cause mortality,

cardiac arrhythmia, glucose metabolism and kidney function.

The Committee concludes that the *Dutch dietary guidelines 2015* are an appropriate basis for people with atherosclerotic cardiovascular disease. With regard to coffee, fats and oils and alcohol the Committee found sufficient research in this group for conclusions to be drawn and the results did not give cause for deviating from the existing guidelines. Hence the recommendations are to replace unfiltered coffee with filtered coffee, to replace butter, hard margarines and cooking fats with soft margarines, liquid cooking fats or vegetable oils, and not to drink alcohol or at least no more than 1 glass per day. With regard to fish the Committee concludes on the basis of the available studies that eating 1 to 2 portions a week (instead of 1 portion a week, as recommended in the *Dutch dietary guidelines 2015*) can be beneficial for the health of people with atherosclerotic cardiovascular disease. There is currently too little research available on table salt, dairy products and meat for people

with atherosclerotic cardiovascular disease. Hence there is no basis for adjusting these guidelines.

The other foods and beverages from the *Dutch dietary guidelines 2015* were not evaluated, because there is no reason to assume that different recommendations apply to people with atherosclerotic cardiovascular disease than to the general population. This means that also for people with atherosclerotic cardiovascular disease, it is recommended, among other things, that they eat at least 200 grammes of vegetables, 200 grammes of fruit and 90 grammes of whole-grain products every day as well as legumes every week, that they minimise the consumption of sugar-containing beverages and that they eat more plant-based and less animal-based products.

The Committee is aware that the dietary recommendations not only affect health but also sustainability aspects of dietary patterns. The Committee outlines how sustainability

aspects can be taken into account when applying these guidelines, but it did not evaluate sustainability aspects when drawing up the dietary recommendations.

### **Plant sterols and stanols can also help to reduce LDL cholesterol levels**

A healthy dietary pattern in line with the *Dutch dietary guidelines 2015* can help to lower LDL cholesterol levels and reduce the risk of cardiovascular disease and other chronic diseases. The Committee evaluated whether foods fortified with plant sterols and/or stanols can also help people with atherosclerotic cardiovascular disease to reduce their level of LDL cholesterol.

It concludes that these products are effective in lowering LDL cholesterol levels, also in people who use statins. It is not yet sufficiently clear whether this also works for people who use other cholesterol-lowering medicines than statins. Furthermore, there are no studies that have investigated whether the use of foods

fortified with plant sterols and/or stanols does in fact help to reduce the risk of cardiovascular disease.

### **No reason to recommend supplements**

The Committee also examined whether dietary supplements may possibly help to reduce the risk of (worsening or subsequent) cardiovascular disease for people with atherosclerotic cardiovascular disease. The Committee cannot make any recommendation about supplements with monacolin K from red yeast rice because insufficient studies were available on this subject. The Committee also cannot make any recommendation about high dosages of fish fatty acids. Sufficient studies are available in this case, but they do not provide a clear picture. In the opinion of the Committee, a lower dosage of fish fatty acids – comparable to 1 to 3 portions of fish a week – probably does not yield any health benefit.

**If overweight or obese, aim for weight reduction**

A large proportion of people with atherosclerotic cardiovascular disease are overweight or obese. Being overweight or obese is a risk factor for, among other things, elevated blood pressure and cholesterol levels, and development of type 2 diabetes, cancer and cardiovascular disease. The Committee advises people with atherosclerotic cardiovascular disease who are overweight or obese to aim for a weight reduction of at least 5% and to maintain this reduced weight in the long term. An energy-restricted diet based on the *Dutch dietary guidelines 2015* can be compiled for people who wish to lose weight and it is recommended they seek guidance from a dietician. However, reducing weight and above all maintaining the reduced weight is complex and usually requires addressing multiple factors, including lifestyle-related factors, at the same time, both at the individual level and in the living environment.

**Integrating dietary recommendations in a broader approach**

The recommendations of the Committee can be used in public information on nutrition for people with atherosclerotic cardiovascular disease, provided for instance by the Netherlands Nutrition Centre, by healthcare professionals such as cardiologists and general practitioners and their assistant practitioners and for dietary treatment by dietitians. It is preferable that the Committee's dietary recommendations be integrated into a broader multidisciplinary approach that also focuses on other factors, such as not smoking and taking sufficient exercise.

**Future research**

The Committee indicates that more research is required in people with atherosclerotic cardiovascular disease in order for more specific recommendations to be given. This relates, for instance, to research on the health effects of dietary factors for which the Committee found too little research (such as dairy products and

table salt) and on dietary interventions combined with the use of cardiovascular medication. In addition, follow-up research is needed into how the Committee's recommendations can be combined with increasing sustainability of dietary patterns.

The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).

The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and Water Management, Social Affairs and Employment, and Agriculture, Nature and Food Quality. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.

Most Health Council reports are prepared by multidisciplinary committees of Dutch or, sometimes, foreign experts, appointed in a personal capacity. The reports are available to the public.

This publication can be downloaded from [www.healthcouncil.nl](http://www.healthcouncil.nl).

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