



Genes respond to the healthy Nordic diet – even without weight loss

The health hazards of excess body fat may be caused by an inflammation of the adipose tissue. However, research has now shown that a healthy Nordic diet reduces inflammatory gene activity in adipose tissue even without weight loss. No wonder the Nordic way of eating has become the focus of wide attention, to the point that even Vogue magazine recently asked "Is eating like a Viking the next It Diet?"

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OVERWEIGHT OFTEN leads to impaired glucose and lipid metabolism as well as atherosclerosis, which may to some extent at least be caused by a low-grade inflammatory state resulting from disturbed adipose tissue function.

In the SYSDIET study led by UEF, researchers investigated the effect of the healthy Nordic diet on the expression of inflammation-associated genes in subcutaneous adipose tissue. The participants were middle-aged men and women, all at least slightly overweight and with traits of metabolic syndrome. Half of them followed the health-promoting Nordic

diet and the others a conventional diet for 18 to 24 weeks. They maintained their weight, so that changes in gene expression could be attributed to the quality of the diet and not to weight loss.

Afterwards, differences were found between the two groups in the function of as many as 128 adipose tissue genes. In the Nordic diet group, the expression of several inflammation-associated genes was lower. The results were published in the American Journal of Clinical Nutrition. The healthy Nordic diet has previously been shown to result in improved blood lipids and a lower

level of inflammation factor IL-1 Ra than a conventional diet. Even though IL-1 Ra improves glycemic control, its increased concentration is believed to reflect a higher risk of type 2 diabetes and fatty liver disease.

According to the researchers, the results highlight the significance of diet in suppressing low-grade inflammation, which is associated with several chronic diseases. It's also good news for those struggling with weight loss. Your diet can make a difference to your health, even if you don't manage to shed those extra pounds.

THE HEALTH-PROMOTING NORDIC DIET

WHOLEGRAIN CEREALS. Choose wholegrain products rich in fibre. At least 50 per cent of the grain products you eat should be rye, barley and oats. Eat at least six portions of wholegrain products per day. Choose bread with more than 6 g of fibre per 100 g, wholegrain pasta, unpolished rice and unsweetened cereals. You should get at least 25 g (women) or 35 g (men) of fibre from your daily food.

BERRIES, FRUIT AND VEGETABLES. Eat at least half a kilo of these products daily, including 200 g of local berries: bilberries, blueberries, currants, raspberries, etc. Apples, pears and plums are typical Nordic fruit. Consume a variety of vegetables, including herbs, onions, cabbage and root vegetables.

FATTY FISH AND LEAN MEAT. Eat fish at least three times a week – two meals of fatty fish and one meal of low fat fish. One portion consists of 100–150 g of fish. The meat you use should be low-fat and preferably white, such as chicken. Lean pork and game are also good choices. To be used only sparingly: red meat, such as beef, and processed meat products, such as sausages.

UNSATURATED FATS. Use rapeseed oil as well as rapeseed, sunflower and soybean oil-based margarines with no trans-fatty acids. You can also include unsalted and unroasted nuts and seeds in your diet. These products contain unsaturated fats, which should make up at least two-thirds of your fat intake.

LOW-FAT MILK PRODUCTS. Consume at least two portions a day of low-fat milk products. One portion is 2.5 dl of liquid dairy product. Choose yoghurts and other fermented milk products with less than 1 g of fat per 100 g. Avoid sugared products. Eat cheese with less than 17 g of fat per 100 g, two to three slices per day.

THINK BEFORE YOU DRINK. Avoid soft drinks that contain sugar. Even fruit and berry juices contain sugar, so keep them down to one glass per day.

