

Red berries, future dietary supplement?

06/02/03 - **Eating red berries on a regular basis may help to protect against the damage caused by free radicals, according to new findings.**

Red berries, such as cranberries, blackberries and black currants, contain a flavonoid called quercetin, which has powerful anti-carcinogenic and enzyme-inhibiting properties, researchers in Finland report in this month's *European Journal of Nutrition*.

The team from the National Public Health Institute in Helsinki, found that people with a high intake of berries in their diet had higher levels of the antioxidant quercetin in their blood, which could boost protection against disease.

Elsewhere, research is focusing on the colourants called anthocyanins in red berries, blueberries and blackcurrants, which are believed to have a role in preventing heart disease.

For this latest study, the researchers divided a group of 40 men, aged 60 years old, into two groups – one group continued their normal diet for a period of eight weeks, while the other ate a daily intake of 100 grams of berries, including black currants, bilberries and lingonberries, a berry variety consumed widely in Finland. In Nordic countries berries constitute the most important source of quercetin in the diet, with quantities of up to 9.6 kilograms per capita consumed each year in Finland.

Fasting blood samples were obtained two weeks prior to the study, at baseline, and at two, four and eight weeks later. The intake of quercetin was assessed from three day food records collected at baseline and at eight weeks.

The researchers report that concentrations of quercetin in the blood were significantly higher in the subjects consuming berries compared to the control group. During the berry consumption period, the mean serum concentrations of quercetin was 32-51 per cent higher in the berry group compared with the control group.

The authors noted that as the concentration of quercetin found in each berry differs according to various factors, such as the thickness of its skin, the ripeness and growing conditions, the concentrations would probably have been higher if fresh berries had been used. However the scientists chose to use frozen berries, as it was considered to be more representative of general consumption due the short yearly harvest period for berries.

The authors concluded that the berries used in the study are a good source of bioavailable quercetin. They added that benefits of berries also include low fat and calorie levels - music to the ears for those preparing themselves for their summer clothes.

Other sources of quercetin include onions, tea, apples and red wine.

The study was supported by the Academy of Finland, Juho Vainio Foundation and the Finnish Foundation for Cardiovascular Research.

Source: *European Journal of Clinical Nutrition* (2003) 57; 37-42