Bioflavonoids Contribute To Heart Disease Risk

by Richard N. Podell, M.D.

Two important international research studies now show that diets high in bioflavonoids reduce the risk of developing heart disease. While saturated fat intake was the most important risk predictor, bioflavonoids in the diet accounted for **25** percent of the variation in heart disease rates from country to country. In these studies, bioflavonoids tied with cigarette smoking as the second most important risk predictor.

There are some 5,000 flavonoids, and they are part of a diverse group of chemical compounds called polyphenols. They are present in virtually all plants in the pigments that give plants then characteristic colors. Fruits and vegetables are rich sources of flavonoids, especially when their pigments fall in the red or purple category such as cherries, grapes and plums. Many plants used as botanical medicines are also rich sources of flavonoids, along with many herbal and green teas.

Scientists indicate that flavonoids can protect LDL cholesterol particles from oxidation-a chemical process that makes cholesterol's effect more toxic on blood vessel walls. Flavonoids help reduce the tendency of blood platelets to clot; they also strengthen arteries and capillaries in the heart, which helps avert disease.

No one has tested whether extra flavonoid supplements directly protect against heart attacks. However, most experts now recommend diets high in bioflavonoids including five fruit and vegetable servings daily.

Since natural flavonoids cannot be patented, drug companies are reluctant to invest money to test their value for treating diseases. Nevertheless, significant research is beginning to emerge, and some drugs such as cromylin sodium are made from synthetic flavonoids.

In the non-drug category, other research supports the benefits of bioflavonoids-particularly the subgroup proanthocyanidins, which are strong antioxidants. Research from the University of Arizona found that Pycnogenol a product containing 50 percent to 65 percent proanthocyanidins, improved immune function in mice infected with a leukemia retrovirus.

Additionally, double-blind studies in humans suggest that *Ginkgo biloba* is moderately but significantly beneficial for certain forms of senility; the silymarin in *milk thistle (Silybum marianum)* benefits the treatment of hepatitis; hawthorn *(Cragaegus pinnatifida)* may help people with angina; and bilberry *(Vaccinum myrtillus)* may improve night vision and strengthen the capillaries. In each case, the flavonoids in these botanical medicines are the active beneficial agents.

One word of caution: Although the flavonoids in red wine might contribute to the relatively low heart-disease rates found in France and Italy, alcohol itself has a pro-oxidation effect and is toxic to many organs. Therefore, avoid a high alcohol intake-with or without bioflavonoids.

For further reading, I included numerous scientific references (see below). If your local hospital's medical library does not have these articles, the librarian can easily obtain a copy through the federal government's National Library of Medicine. **NSN**

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