Reduce your risk of heart disease without prescriptions

B vitamins are effective in lowering homocysteine levels

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Cholesterol tests have been the standard for predicting heart disease for many years. However, a new risk factor—high levels of homocysteine—have gained increasing interest and research in recent years.

Homocysteine is produced when the amino acid methionine metabolizes and then breaks down to a nontoxic form with the help of pyridoxine (vitamin B₆). When homocysteine is broken down completely, it donates materials for other reactions in the body that are particularly important in liver detoxification, adrenal gland function, and joint, cartilage, and bone repair.

When homocysteine is not broken down completely, mainly because insufficient levels of vitamin B₆ are present, clotting, increased harmful oxidation, and damaged blood vessel walls may result. These in turn may lead to fat and cholesterol deposits, decreased blood flow, and atherosclerosis.

Homocysteine screening has been recommended by several researchers. The first studies to link B₆ deficiency with atherosclerosis were published in 1948. Since then, numerous studies have confirmed the importance of B₆. Studies have shown patients with low levels of B₆ have a five times greater risk of heart attack. Other studies also found other B vitamins—folic acid, B₁₂, and niacinamide (a form of B₃)—also lower homocysteine levels and therefore reduce the risk of heart disease.

Vitamin B₆, in particular, may also be important in other aspects of atherosclerosis. Lysyl oxidase, an enzyme for cross-linking collagen that helps make up connective tissue and muscle, also requires vitamin B₆. It decreases platelet aggregation, therefore reducing clotting. Studies with vitamin B₆ show total plasma lipids and LDL cholesterol were also lowered and HDL increased.

In a study that followed 80,000 women for the number of heart attacks and deaths over 14 years, it was found that B₆ ingested daily reduced a woman's heart disease risk by 17 per cent and folate reduced the risk by 11 per cent. B₆ may also help prevent osteoporosis, which may be caused by homocysteine build-up.

A European study found that people with normal homocysteine levels had twice the risk of heart disease and stroke if they had low B₆ consumption.

Many factors influence B vitamin levels. Stress and excessive exercise deplete levels, as does cooking, particularly microwave cooking, which zaps nutrients as it heats foods.

Niacinamide (B₃), B₁₂, and folic acid will minimize the risk of increased homocysteine levels. By maximizing diet and supplementation, you are taking an active role in keeping your heart and blood vessels strong.

Brenda Gill, ND, is licensed by the Association of Naturopathic Physicians of BC and is a member of the BC Naturopathic Association.