



Patient Information

The Importance of Homocysteine

Homocysteine is an amino acid released as the body digests dietary protein. At high levels, this amino acid can be harmful to your health. Too much homocysteine in your blood is linked with a greater risk of heart disease, stroke and complications of diabetes such as neuropathy (nerve damage). High homocysteine levels can cause blood to clot more easily and eventually lead to a stroke or heart attack. In addition, high homocysteine allows your blood vessels to more readily absorb LDL or "bad" cholesterol, which can lead to hardening of the arteries (atherosclerosis).

A simple blood test can measure the level of homocysteine in your blood, and your NP can let you know whether your level needs to be decreased.

This handout will help you identify the causes of high homocysteine levels and provide some ways to lower homocysteine in your blood.

What Causes High Homocysteine Levels?

Most people with a high homocysteine level don't get enough folate (also called folic acid), vitamin B₆ or vitamin B₁₂ in their diet. Replacing these vitamins helps return the homocysteine level to normal. Other possible causes of a high homocysteine level include family history, smoking, previous heart attack or stroke, kidney disease and some medications.

Lowering Your Homocysteine Levels

Folic acid is one of the three factors (along with B₁₂ and B₆) necessary to lower elevated homocysteine levels. Adding more folic acid to your diet may lower your levels of homocysteine.

There are a few ways to get more folic acid. You can eat folate-rich foods, such as leafy green vegetables, bananas, beans and peas. Other foods, such as some cereals and grain products, are fortified with a synthetic form of folic acid. You can also take pill, powder or liquid folic acid supplements.

The amount of folic acid that can be converted into L-methylfo-

late, the body's useable form of folate, is often limited by genetic, age-related and metabolic obstacles. However, L-methylfolate is now available in a new prescription-strength product called Metanx.

A Closer Look at L-methylfolate

L-methylfolate is seven times more bioavailable than folic acid, which means that it can be used by the body more quickly and efficiently than folic acid. L-methylfolate can lower homocysteine levels three times more effectively than folic acid.

Folic acid is synthetic, so it has no immediate benefit to the body. Plus, folic acid must complete a four-step process before it is converted to L-methylfolate so that it can be used by the body to lower homocysteine. Why is it important to know that folic acid must complete this conversion process? According to numerous studies, 40% to 50% of people are not able to complete these four steps. This means that if you are taking folic acid, you may not be receiving the benefits your body needs. L-methylfolate requires no extra conversion steps by the body, so it is easily absorbed and can more efficiently enter the cells in your body.

L-methylfolate is the main form of folate that circulates in the body and is transported into the tissues. Also, L-methylfolate is the only folate that can cross the blood-brain barrier, which may benefit patients with neurological disorders.

L-methylfolate is the superior alternative to folic acid for several reasons:

- It is the naturally occurring, predominant form of folate.
- It is a pure, crystalline and stable vitamin.
- It is safe, according to many studies.
- It is unaffected by genetic factors.
- It is directly usable by the body.
- It is directly involved in lowering blood homocysteine levels.

Metanx is available by prescription only. Talk to your nurse practitioner to determine whether this product is right for you.

Information about L-methylfolate obtained from www.metanx.com and www.metafolin.com.

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Additional Notes:
