

What's homocysteine?

Homocysteine is a toxic amino acid, which can build up in your body and become one of a number of risk factors for cardiovascular disease such as atherosclerosis, strokes and venous thromboses, none of which you would want in this lifetime or the next.

This amino acid is formed from the metabolism of the essential amino acid, methionine. High dietary consumption of methionine (meat and dairy products) can result in the overproduction of homocysteine – particularly if there is poor co-factor nutrient availability for its further metabolism.

The nutrients we need to make sure that it doesn't build up include B vitamins, particularly Bs 6, 9 and 12, because they are what are called "methyl donors". The healthy process of converting homocysteine either back to methionine or to cysteine required lots of methyl groups. If these are lacking in your diet, or if you drink excessive amounts of alcohol or coffee, then you could be at risk of building up homocysteine. When this happens your coronary vessels don't act the way they should, and you can get a lot of free radical damage.

Your level of homocysteine can be measured in a blood test, but you will need to ask for this when you have the test done. If you do find a high level, it is easily treated with diet and simple supplements such as fish oils and vitamins. It's also a good wake-up call to make sure your lifestyle isn't going to lead to heart disease and worse.

It is estimated that every 5 μ M increase in total plasma homocysteine levels is followed by an increased risk of coronary heart disease by 60% for men and 80% for women. One study examined cardiovascular disease patients for a little over 4 years. During this time, only 3.6% of those with a homocysteine level less than 9 μ M passed away, whereas 24.7% of patients with a homocysteine level greater than 15 μ M died.

High homocysteine is a problem that nobody needs to have, and is best treated long before you suffer heart damage.

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[Advice in these columns is of a general nature only and is not to be taken as specific treatment.]