SHAW AMERICAN FINANCIAL CORPORATION

Homocysteine

Homocysteine is a compound formed in the body during the metabolism of protein. The normal range for total homocysteine is generally felt to be 5-15 micromol. This can be measured by a blood test (preferably a fasting blood specimen). The cause of elevated homocysteine may be genetic, due to other co-existing medical conditions such as renal failure and certain cancers, or due to low dietary intake of vitamins B6, B12 and folate. Recent medical information has suggested that elevated levels of homocysteine in the blood are a risk factor for premature vascular disease. Specifically, a number of medical studies have shown a relationship between homocysteine and coronary artery disease, cerebrovascular disease (i.e. stroke), peripheral vascular disease, and venous thrombosis (i.e. clotting in the legveins). For example, one study of U.S. physicians found that those with homocysteine levels over 15.8 micromol had a 3.4 fold increased risk of heart attack. Another recent study found that healthy post-menopausal women with homocysteine levels over 13.3 micromol had a 2 fold increased risk of any cardiovascular event.

Treatment for elevated homocysteine levels in those with a high risk of cardiovascular disease is typically with vitamins, either vitamin B12 replacement (if B12 levels are low) or folic acid supplements. Vitamin B6 supplementation is also being considered.

Because this is relatively new, no studies are presently available that prove that treatment will prevent cardiovascular disease. For life underwriting considerations, an elevated homocysteine level in isolation of other cardiac risk factors or known vascular disease will be non-rated. If an applicant has known vascular disease such as coronary artery disease (CAD) and persistently elevated homocysteine greater than 15 micromol, an increased rating of one table will be added to the CAD rating.