

Alternative Medicines' New Findings of Homocysteine: Beyond Heart Health

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Homocysteine, an amino acid intermediary formed during the metabolic conversion of *methionine* both to and from *cysteine*, is well known for its unhappy relationship with cardiovascular disease. Countless studies have associated elevated homocysteine levels with issues such as atherosclerosis, blood clots, heart attack and stroke.

Less commonly recognized is the relationship between high homocysteine levels and bone health. High homocysteine is known to interfere with collagen cross-linking, an effect with the potential to weaken skeletal structure and increase the risk of osteoporotic fractures.

A 2004 report published in the *New England Journal of Medicine* examining data from male and female Framingham Health Study participants, aged 59 to 91, supports this conclusion. Careful analysis found that men with the highest levels of homocysteine ($20.8 \pm 15.7 \mu\text{mol/L}$) had nearly **four times the risk for hip fracture** as men with the lowest levels ($8.5 \pm 0.9 \mu\text{mol/L}$), while women with the highest homocysteine levels ($18.6 \pm 6.4 \mu\text{mol/L}$) were almost **twice as likely to break a hip** as women with the lowest levels ($7.6 \pm 1.0 \mu\text{mol/L}$).

Today, it is generally accepted that in most people, normal homocysteine levels are easy to achieve via dietary interventions that replenish nutrients required for converting homocysteine into methionine and cysteine: bioavailable **folate, vitamin B6 & vitamin B12**. While most commonly taken to support cardiovascular health, these three "homocysteine factors" may offer the added advantage of providing nutritive support for strong and healthy bones. Further research also suggests a role for healthy homocysteine levels in promoting healthy brain and neurological function, another bonus for anyone taking homocysteine support for heart health.

Dr. Badanek has been and currently is 40 years into active/private practice in the Ocala/Marion County, Florida region. Dr. Badanek practices Natural/Holistic Medicine through the use of Functional/Integrative Models for diagnostic and treatment protocols for the health challenged. Find him online at Dr.Badanek.com and www.alternativewholistic.com, and see what the facility has to offer the sick and health challenged. To schedule an appointment call 352-622-1151