

Genetic predisposition to higher calcium levels linked with increased risk of coronary artery disease

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A genetic predisposition to higher blood calcium levels was associated with an increased risk of coronary artery disease and heart attack, according to a study published by *JAMA*.

Calcium has a vital role in many biological processes in the body such as blood clotting. It is unclear whether lifelong elevated serum calcium may be causally associated with [coronary artery disease](#) (CAD) risk. Susanna C. Larsson, Ph.D., of the Karolinska Institutet, Stockholm, and colleagues conducted a method of analysis using genetic information known as mendelian randomization to examine the association of serum calcium with CAD and myocardial infarction (MI; heart attack). Mendelian randomization is the use of genetic variants that have a specific influence on possible risk factors to assess associations with explicit outcomes.

The analysis included 184,305 individuals (60,801 CAD cases [approximately 70 percent with MI] and 123,504 noncases) and six genetic variants related to serum calcium levels. The researchers found that a [genetic predisposition](#) to higher serum calcium levels was associated with an increased risk of CAD and [heart attack](#).

"Whether the risk of CAD associated with lifelong genetic exposure to increased serum calcium levels can be translated to a risk associated with short-term to medium-term calcium supplementation is unknown," the

authors write.

Several limitations of the study are noted in the article.

More information: *JAMA* (2017). [jamanetwork.com/journals/jama/...1001/jama.2017.8981](https://jamanetwork.com/journals/jama/article-abstract/1001/jama.2017.8981)

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