

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

July 25 2017

---

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)

Provided by The JAMA Network Journals

Citation: Genetic predisposition to higher calcium levels linked with increased risk of coronary artery disease (2017, July 25) retrieved 6 May 2024 from <https://medicalxpress.com/news/2017-07-genetic-predisposition-higher-calcium-linked.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--