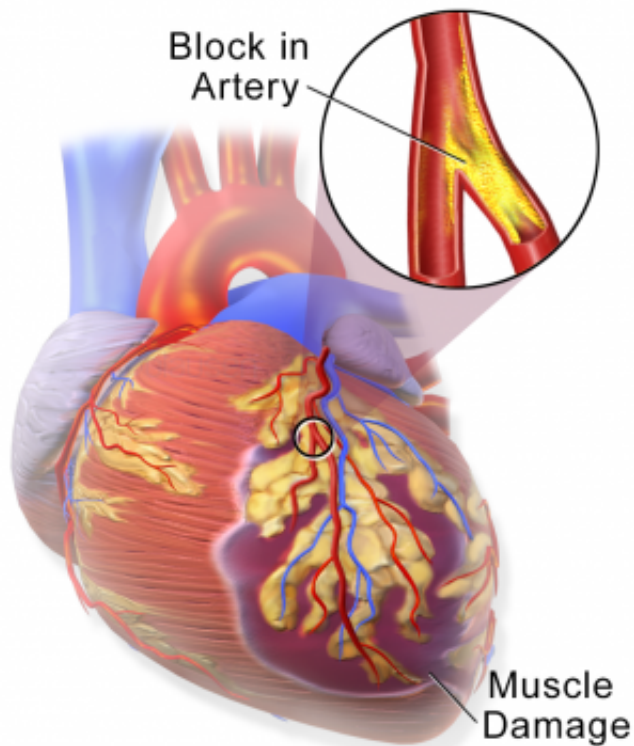


Heart attacks more likely in those with low blood phosphate levels

November 8 2017



Heart Attack

Myocardial Infarction or Heart Attack. Credit: Blausen Medical Communications/Wikipedia/CC-A 3.0

Low phosphate in the blood is linked to the risk of heart attack and coronary artery disease, a new study in the journal *PLOS One* reports.

Researchers from the University of Surrey found that insufficient levels of [phosphate](#) in the blood may pose a particular danger to cardiovascular health, contradicting previous research in this area, which suggested low volumes of the mineral was beneficial to the [heart](#).

The study, using data from the RCGP Research and Surveillance Centre, examined phosphate levels of more than 100,000 patients, over five and nine-year intervals, and the impact on their cardiac health. The researchers found that those with low levels (below 0.75 mmol/L) of the mineral in their blood were at a similar risk of developing coronary problems as those with elevated levels (above 1.5 mmol/L). Instances of both conditions were high amongst those with low and excessive levels of phosphate in the blood, however cardiac events in those with mid-range (1-1.25 mmol/L) levels were significantly less.

Risks associated with high levels of phosphate in the blood have previously been proven by the scientific community, but this is the first time the dangers of low levels have been identified as potentially being just as dangerous.

Phosphate is an important mineral in the body and helps to regulate blood biochemistry, which can impact on the working of the heart. It plays a crucial role in enabling [red blood cells](#) to deliver oxygen to the body's tissues, and can be found in protein rich foods such as meat, poultry and fish.

Lead author Dr Nick Hayward, who conducted the research while at the University of Surrey, said: "The importance of phosphate in primary and secondary healthcare should be reviewed. It is often overlooked in [blood](#) tests yet phosphate may be a new risk factor for heart disease in adults."

Dr Andy McGovern from the University of Surrey said: "Our findings shed new light on the role of phosphate in the body and its relationship

to [cardiovascular health](#). "In light of our findings we would suggest that clinicians consider people with low [phosphate levels](#) to be at higher cardiovascular risk and assess ways in which this can be reduced for each patient."

Provided by University of Surrey

Citation: Heart attacks more likely in those with low blood phosphate levels (2017, November 8) retrieved 10 May 2024 from <https://medicalxpress.com/news/2017-11-heart-blood-phosphate.html>

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.