Experts prove link between phosphate intake and heart disease

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Lowering phosphate intake in humans can reduce heart disease, according to research by experts at the University of Sheffield.

This is the first time the connection between a high phosphate diet and atherosclerosis - the cause of heart disease - has been proven. The findings have been published in Arteriosclerosis, *Thrombosis and Vascular Biology* (2 June 2011).

The research, which was funded by the Sheffield Kidney Association and the National Institute for Health Research, has shown that cholesterol deposits in the wall of arteries are increased following a higher phosphate diet. This leads to narrowing of the arteries, which is the cause of most heart attacks and strokes.

As a result, the research demonstrates the importance of reducing phosphate levels in the human diet or possibly using drugs called binders or other agents that stop phosphate being absorbed. Food high in phosphate includes biscuits, cakes, sweets, dairy products and meats such as offal and veal.

Dr Tim Chico from the University's Department of Cardiovascular Science, who led the research, said: "This is a very early, but exciting finding, as it suggests that by reducing the amount of phosphate in the blood we may have discovered a new approach to reducing heart disease. We're now hoping to extend our research further and look into developing new treatments to help reduce phosphate levels in the

bloodstream."

More information: To read the full paper by Timothy Ellam, Martin Wilkie, Janet Chamberlain, David Crossman, Richard Eastell, Sheila Francis, and Timothy J.A. Chico, visit: atvb.ahajournals.org/cgi/repri … ATVBAHA.111.231001v1

Provided by University of Sheffield