Heart Disease Linked To Too Much Cholesterol In Cell Organelle (www.whatsyourph.com)

Main Category: Heart Disease
Also Included In: Cholesterol; Statins
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Scientists have shown that a build-up of cholesterol in cell organelles called lysosomes is related to a higher incidence of heart disease.

Atherosclerosis, a heart disease in which fat accumulates in arteries and blocks blood flow, is the leading cause of death in the Western World. One hallmark of the disease is the presence of cells called macrophage foam cells, in which cholesterol accumulates. Scientists are now trying to understand how cholesterol builds up in these cells, especially in cellular organelles called lysosomes that are known for degrading cholesterol.

W. Gray Jerome and colleagues noticed that when cholesterol accumulates in lysosomes, they become more acidic, which makes them less active. The lysosomes become unable to degrade all the cholesterol that comes in, and more cholesterol accumulates over time. These observations suggest that restoring the acidity of lysosomes may be a promising way to clear up arteries from cholesterol and to potentially prevent heart disease.

Article:
Effects of Cellular Cholesterol Loading on Macrophage Foam Cell Lysosome Acidification
Brian E. Cox, Evelyn Griffin, Jody C. Ullery, and W. Gray Jerome

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