



## The Benefits of Exercise

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By William Peniston, MD

**The Deadliest Sin, HARVARD MAGAZINE  
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[www.harvardmagazine.com/on-line/030407.html](http://www.harvardmagazine.com/on-line/030407.html)**

This article about recent and ongoing exercise research should be read in its entirety rather than as a summary. It says exercise regulates gene transcription throughout the body, and lists all the different conditions benefited by it. This is followed by descriptions of some of the mechanisms of change. Exercise causes changes throughout the whole body, involving all tissues and cells.

The anthropologists' premise is that mankind developed adaptations for running and probably covered 10 to 20 kilometers a day. The article describes the metabolic processes stimulated by exercise and that reduce the risk of atherosclerosis. It discusses the differences in the mechanisms by which exercise and insulin cause increases in glucose uptake.

Most of the information cited in the article is from interviews with Harvard researchers named throughout the article. There are no references to published reports of the research but placing the researchers names in an internet search engine produced much interesting information.

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