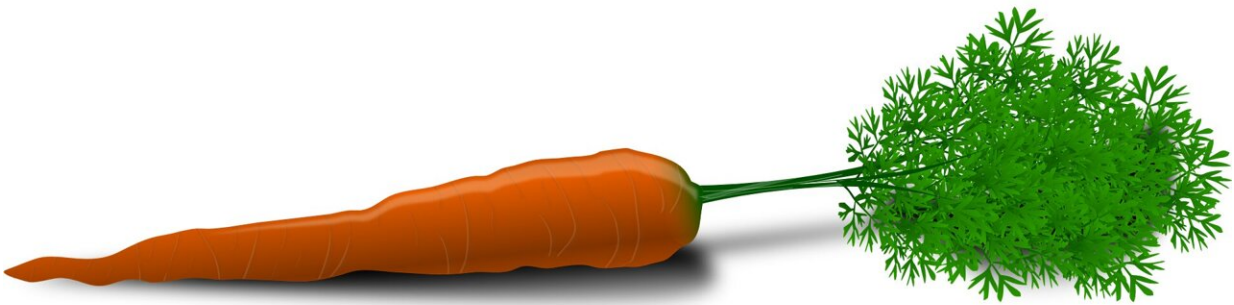


Vitamin A may protect the heart from some effects of obesity

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Research in a mouse model of diet-induced obesity has found greater disruption to genes involved in heart function when coupled with vitamin A deficiency using a combined dietary and genetic approach. The study is published ahead of print in the *American Journal of Physiology-Heart and Circulatory Physiology*.

The research team, based at Hannover Medical School in Germany,

induced obesity in a mouse model of vitamin A deficiency. After 20 weeks, the researchers compared the hearts and metabolism of the mice to [obese mice](#) with sufficient levels of vitamin A. In comparison, the vitamin-deficient obese mice had repression of genes in the heart that are associated with extracting energy from fat, extracting energy from glucose, and the production of the energy-carrying molecule adenosine triphosphate.

All of these areas are critical to metabolic functioning.

"Our study identifies a role for vitamin A in preserving cardiac energetic gene expression that might attenuate subsequent development of mitochondrial and contractile dysfunction in diet-induced obesity," the researchers wrote.

More information: Lea Naasner et al, Vitamin A preserves cardiac energetic gene expression in a murine model of diet-induced obesity, *American Journal of Physiology-Heart and Circulatory Physiology* (2022). [DOI: 10.1152/ajpheart.00514.2022](https://doi.org/10.1152/ajpheart.00514.2022)

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