

# Low inflammation may explain healthy metabolic status in some obese people

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Reduced levels of inflammation may explain how some obese people are able to remain metabolically healthy, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism (JCEM)*.

Obesity generally is linked to a higher risk of diabetes and heart disease. Some people who are obese, however, do not develop high blood pressure and unfavorable cholesterol profiles – factors that increase the risk of metabolic diseases. This phenomenon is described as metabolically healthy [obesity](#). Although estimates vary widely, as much as 35 percent of the obese population may be metabolically healthy.

"In our study, metabolically healthy people – both obese and non-obese – had lower levels of a range of [inflammatory markers](#)," said the study's lead author, Catherine Phillips, BSc, PhD, of University College Cork in Ireland. "Regardless of their body mass index, people with favorable inflammatory profiles also tended to have healthy metabolic profiles."

The cross-sectional study was conducted between 2010 and 2011 at a large primary care center in Mitchelstown, County Cork, Ireland. Researchers analyzed data from 2,040 participants in the Cork and Kerry Diabetes and Heart Disease Study (Phase II). Participants, who were between the ages of 50 and 69, completed lifestyle questionnaires, physical and clinical assessments, and underwent blood testing so their body mass index (BMI), metabolic profiles and inflammatory markers could be determined.

Researchers examined levels of several inflammatory markers. People who were metabolically healthy had reduced counts of white blood cells and acute-phase response proteins, which proliferate when [inflammation](#) occurs. Metabolically healthy people also had higher levels of adiponectin, a hormone that has an anti-inflammatory effect, compared to their metabolically unhealthy counterparts. Researchers found this inflammatory profile in both obese and lean people who were metabolically healthy.

"From a public health standpoint, we need better methods for identifying which [obese people](#) face the greatest risk of diabetes and [heart disease](#)," Phillips said. "Inflammatory markers offer a potential strategy for pinpointing people who could benefit most from medical interventions."

**More information:** The article, "Does Inflammation Determine Metabolic Health Status in Obese and Non-Obese Adults," will be published in the October issue of *JCEM*.

Provided by The Endocrine Society

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