Medical Xpress

Bariatric surgery improves adipose tissue function

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(HealthDay)—Bariatric surgery is associated with improvements in

adipose tissue function, some of which are independent of weight loss, according to research published online June 8 in *Obesity Reviews*.

Henriette Frikke-Schmidt, Ph.D., from the University of Michigan in Ann Arbor, and colleagues examined how altered physiology of adipose tissue may contribute to the metabolic effects of bariatric surgery.

The researchers found that altered physiology of adipose tissue has specific effects on various fat depots, the function of individual adipocytes, and the interaction between adipose tissue and other metabolic tissues. Bariatric surgery alters the distribution of fat in addition to loss of fat mass, with fat shifting from visceral to the subcutaneous compartment favoring metabolic improvement. Furthermore, there were improvements in sensitivity toward lipolysis controlled by insulin and catecholamines, alterations in adipokine secretion, and decreases in local adipose inflammation and systemic inflammatory markers. Some of these changes were independent of weight loss and these effects could be explained by alterations in bile acid metabolism, gut microbiota, and central regulation of metabolism.

"In conclusion, bariatric surgery is capable of improving aspects of adipose tissue function and do so in some cases in ways that are not entirely explained by the potent effect of surgery," the authors write.

Several authors disclosed financial ties to the pharmaceutical, medical device, and nutrition industries.

More information: Abstract
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