

Improved metabolic profile after roux-en-Y gastric bypass

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Roux-en-Y gastric bypass is associated with attenuated markers of oxidative stress in subcutaneous adipose tissue, according to a study published recently in *Diabetes*.

(HealthDay)—Roux-en-Y gastric bypass (RYGB) is associated with attenuated markers of oxidative stress in subcutaneous adipose tissue, according to a study published recently in *Diabetes*.

X. Julia Xu, Ph.D., from the Boston University School of Medicine, and colleagues examined how AMP-activated protein kinase (AMPK) activity, oxidative stress, inflammation, and [insulin resistance](#) are affected by RYGB surgery. They studied 11 patients immediately before and three months after surgery.

The researchers found that AMPK activity increased 3.5-fold after

surgery, and [oxidative stress](#) decreased by 50 percent in [subcutaneous adipose tissue](#). There was also an 80 percent reduction in malonyl-CoA levels. There were improvements in both [body mass index](#) (BMI) and insulin sensitivity, and an increase in circulating high molecular weight (HMW) adiponectin, while fasting plasma insulin levels decreased. The expression of inflammatory markers was unchanged postoperatively in subcutaneous adipose tissue, although there was a 50 percent decrease in plasma C-reactive protein.

"We demonstrated that three months postoperatively, there is a substantial improvement in the patients' metabolic profile as assessed by changes in body weight, BMI, circulating HMW adiponectin, insulin sensitivity, and increased adipose tissue AMPK phosphorylation/activation," the authors write.

More information: [Abstract](#)
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