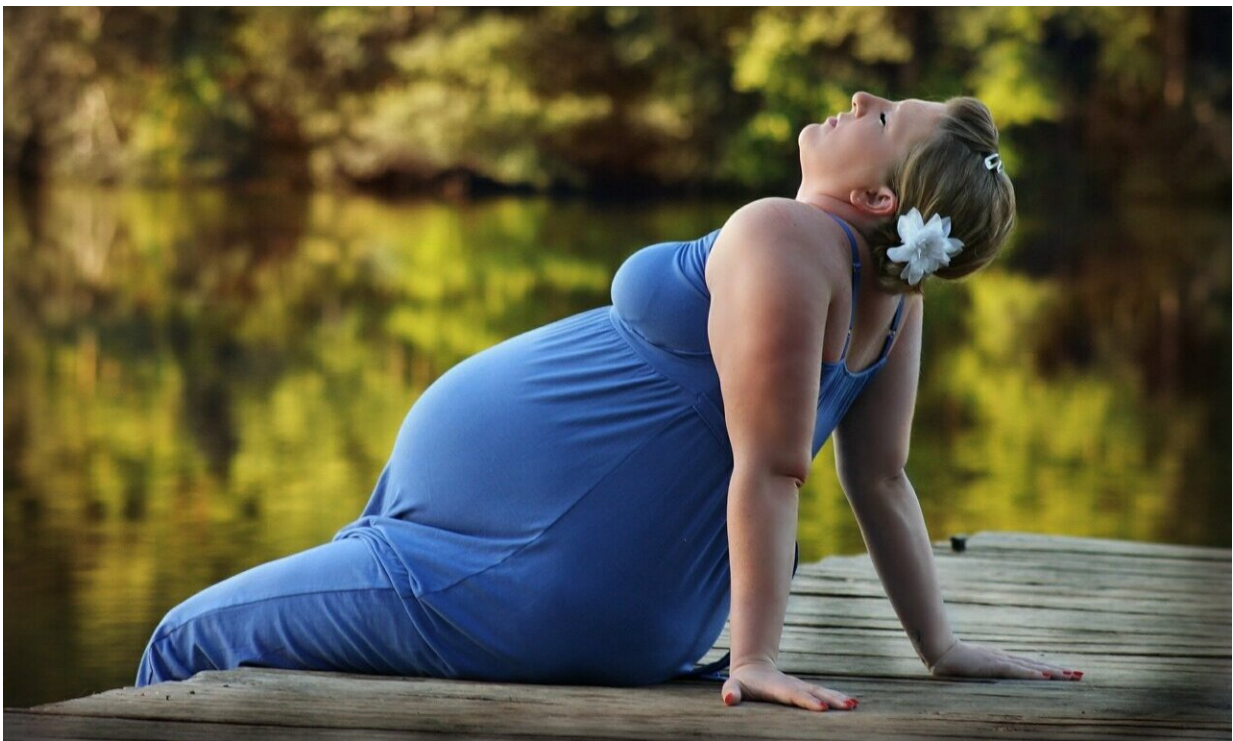


Type of weight loss surgery women undergo before pregnancy may influence children's weight gain

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The type of weight loss surgery women undergo before becoming pregnant may affect how much weight their children gain in the first three years of life, suggests a study presented at [ENDO 2024](#), the Endocrine Society's annual meeting in Boston, Mass.

Researchers found children born to women who underwent the bariatric procedure known as [sleeve gastrectomy](#) before they became pregnant gain more weight per month on average in the first three years of life compared with children born to women who had the less common Roux-en-Y gastric bypass weight loss procedure.

"Either the extent of pre-pregnancy weight loss or the [metabolic changes](#) from Roux-en-Y gastric bypass may be favorable for the children's early childhood weight gain," said researcher Vidhu Thaker, M.D., of the Columbia University Irving Medical Center in New York, N.Y.

Maternal obesity is a risk factor for obesity in children. Women are more likely to conceive following weight loss procedures, but less is known about the early growth of the children born after pre-pregnancy weight loss procedures.

Sleeve gastrectomy and Roux-en-Y gastric bypass are two of the more common types of weight loss surgery, also known as bariatric and metabolic surgery. These surgeries result in sustained weight loss and improve the body's metabolism in the majority of patients.

In vertical sleeve gastrectomy (also called gastric sleeve surgery), a surgeon removes most of the stomach, leaving only a banana-shaped section that is closed with staples. By removing a part of the stomach that makes hormones that drive hunger, this procedure also decreases appetite.

In gastric bypass, the surgeon divides the stomach into two parts, sealing off the upper section from the lower. The surgeon then connects the upper stomach directly to the lower section of the small intestine. This creates a shortcut for food, bypassing part of the stomach and the small intestine. Skipping these parts of the digestive tract means the body absorbs fewer calories and nutrients.

The researchers examined the weight and length of offspring born after pre-pregnancy weight loss procedures in the first three years of life. The study used data from 20,515 deliveries over three years, of which 450 had pre-pregnancy weight loss procedures. Among the mothers who underwent weight loss surgery, 57% had sleeve gastrectomy and 41% had Roux-en-Y gastric bypass. Long-term weight and length data were available for about half of the babies in each group.

The researchers found there was no difference in [birth weight](#) among the babies born after weight loss surgery. The pace of weight gain was higher in those born after pre-pregnancy sleeve gastrectomy compared to those born following Roux-en-Y gastric bypass, while adjusting for several other variables including pre-pregnancy body mass index.

"While we did not have data on the magnitude of weight loss following [bariatric surgery](#), Roux-en-Y gastric bypass is known to have higher weight loss and metabolic changes compared to sleeve gastrectomy," Thaker noted.

The authors concluded that either the extent of pre-pregnancy weight loss or the metabolic changes from Roux-en-Y [gastric bypass](#) may be favorable for the offspring's early childhood weight trajectory.

"A study of the mechanisms underlying the associations of the sustained pre-pregnancy weight loss and the offspring's early life growth may also apply to other methods of weight loss, including the most recently

approved anti-obesity medications," Thaker said.

Provided by The Endocrine Society

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