

Weight loss does not improve fertility

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(Medical Xpress)—Losing weight does not lead to improved fertility in women, but does improve sexual function, according to Penn State College of Medicine researchers.

"Obesity in women has been linked to lack of ovulation and thus infertility," said Richard Legro, M.D., professor of obstetrics and gynecology. "Obesity, especially centered in the abdomen, among [infertile women](#) seeking pregnancy is also associated with poor response to ovulation induction and with decreased [pregnancy rates](#)."

[Obese women](#) are often told to lose weight prior to conception, so researchers looked at changes in reproductive function after gastric bypass surgery. One way to learn more about the effects of obesity on reproduction is to study women after bariatric surgery, since a large amount of weight is lost in a relatively short period of time. Each person can be studied while obese and after surgery to detect changes. Researchers report their findings in the *Journal of Clinical [Endocrinology and Metabolism](#)*.

Researchers followed 29 [morbidly obese](#) women—women whose body fat accumulated to the extent that it may have an adverse effect on health—of reproductive age for up to two years after Roux en Y gastric bariatric bypass surgery. Roux en Y is a procedure that creates a small pouch in the stomach that is directly connected to the midsection of the [small intestine](#), bypassing the rest of the stomach and the upper portion of the small intestine.

Ovulation frequency and quality was determined by collecting daily urine specimens over the course of a menstrual cycle and measuring ovarian hormones. The researchers were surprised to find that ovulation rates remained high (more than 90 percent at all time points before surgery and at one, three, six, 12, and 24 months after surgery). The quality of the ovulation also remained unchanged, and there was little effect on the ovarian cycle.

The exception is a notable shortening of eight to nine days of the follicular phase. The follicular phase is the first half of the menstrual cycle, from the end of the previous menstrual flow until the release of the egg (ovulation). Three months after surgery, the phase is six and a half days shorter, and then up to nine days shorter by 24 months post-surgery.

Obesity is associated with longer menstrual cycles, specifically because of an increase in the follicular phase. The reason the phase shortens with [weight loss](#) is not yet known.

Sexual function at one year as detected by the Female Sexual Function Index, a self-reporting index of sexual health collected through questionnaires, is most noticeable. This improvement is independent of changes in hormone levels and body composition. [Sexual desire](#) and arousal increase the most. Researchers did not track sexual activity or desire to conceive. However, increased sexual desire may have led to increased frequency of sexual activity.

"The effects of weight loss on reproductive function are more modest than we hypothesized. In terms of ovulation, there doesn't appear to be a window after surgery where fertility is improved," Legro said. "The door appears to be open at all times. Other factors may be involved with infertility in obese women, such as diminished sexual desire and thus less intercourse. This study, to our knowledge, is the largest, most

comprehensive and longest study of female reproductive function before and after Roux en Y gastric bariatric [surgery](#)."

Provided by Pennsylvania State University

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