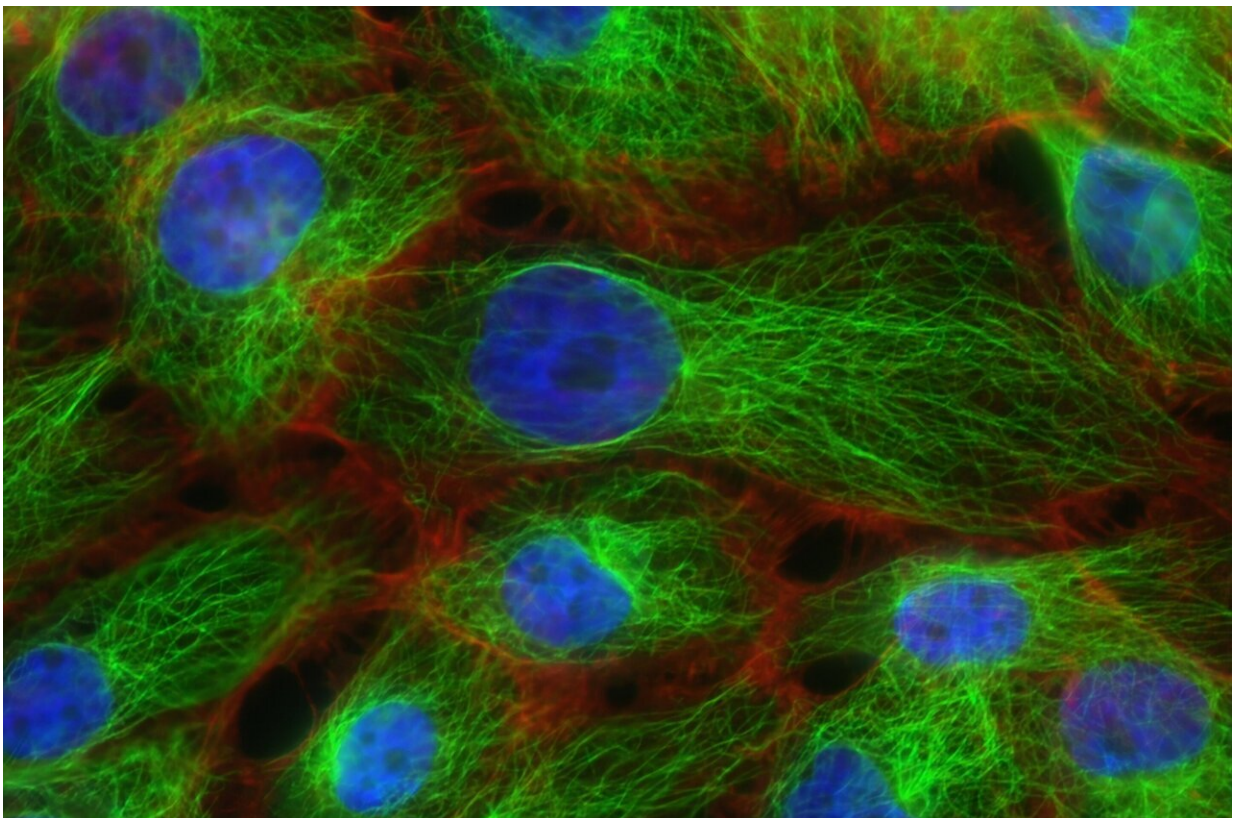


Study finds reduced risk of breast cancer following bariatric surgery in women with hyperinsulinemia

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Bariatric surgery is associated with a reduced risk of breast cancer in women with obesity. These are the findings of a study conducted at the

University of Gothenburg. The risk reduction is greatest for those with high blood insulin levels at the time of surgery.

The study, [published](#) in *JAMA Surgery*, is based on data from 2,867 women with obesity, half of whom had undergone [bariatric surgery](#) at 25 surgical departments. The remaining women, comprising the control group, received standard obesity [treatment](#) at 480 health care centers. The groups were otherwise comparable in terms of age and body composition.

The results show that a total of 154 women developed [breast cancer](#), 66 in the surgery group and 88 in the conventional obesity treatment group. Unadjusted analyses revealed that women who underwent bariatric surgery had a 32% lower risk of developing breast cancer.

Further analyses showed that women with high levels of insulin at the start of the study, defined as insulin above the group median, had a 52% lower risk of developing breast cancer after bariatric surgery, compared with the [control group](#).

Variations in efficacy on cancer risk

Felipe Kristensson is a Ph.D. student at the Sahlgrenska Academy at the University of Gothenburg, a Physician at the Sahlgrenska University Hospital and one of the driving forces behind the study:

"Guided by our results, we will have better knowledge of which individuals have the best effect of surgery and which may not experience such favorable outcomes. This facilitates a more personalized care, i.e. ensuring that each patient receives the most appropriate treatment for their condition," he says.

"The results also reflect the biological mechanisms underlying cancer

development in which insulin appears to play an important role. Further research into such mechanisms also paves the way for the development of new cancer treatments," says Kristensson.

Long-term protection after surgery

It is well known that bariatric surgery is one of the most effective methods for significant and long-lasting weight loss. The surgery also provides long-term protection against obesity-related diseases, such as various forms of cancer.

The current study is based on data from the SOS study, Swedish Obese Subjects, and the Cancer Registry. The SOS study, managed by the Sahlgrenska Academy at the University of Gothenburg, is the world's most comprehensive study of the long-term effects of bariatric surgery compared to conventional [obesity](#) treatment.

More information: Felipe M. Kristensson et al, Breast Cancer Risk After Bariatric Surgery and Influence of Insulin Levels, *JAMA Surgery* (2024). [DOI: 10.1001/jamasurg.2024.1169](https://doi.org/10.1001/jamasurg.2024.1169)

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