

# Body Mass Index associated with breast cancer, regardless of body shape

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A study of predominantly white women finds a larger waist circumference is associated with higher risk of postmenopausal breast cancer, but not beyond its contribution to BMI. The study, by American Cancer Society researchers, fails to confirm previous findings that body shape itself is an independent risk factor for breast cancer. The current study appears in the April 2014 issue of *Cancer Causes, and Control*.

A significant body of research has linked abdominal obesity to a number of conditions, including heart disease, type II diabetes, and breast and other cancers. Those studies have led to the theory that having an "apple shaped" body, with weight concentrated in the chest and torso, is riskier than having a "pear-shaped" body, with fat concentrated in the hips, thighs and buttocks.

To explore the theory, researchers led by Mia Gaudet, PhD, analyzed data from 28,965 women participating in the Cancer Prevention Study II. Among those women there were 1,088 invasive breast cancer cases diagnosed during a median 11.58 years of follow-up. They found a statistically significant positive association between [waist circumference](#) and postmenopausal [breast cancer risk](#); however, when they adjusted for BMI, the association disappeared.

"The message is that if you have a high BMI, regardless if you are pear or apple shaped, you are at higher risk of breast cancer," said Dr. Gaudet. "Most prior studies on this issue looked at BMI or at waist circumference, but had not looked at them together. This study brings some clarity to the association between obesity and risk of breast cancer."

Dr. Gaudet says the data could help women focus on what's important in what has been a confusing array of potential risk factors for breast cancer. "We know being overweight, particularly when the weight gain happened during adulthood, is one of

the important modifiable risk factors for [breast cancer](#) in post-menopausal [women](#). This new data indicates it's not what shape you are, it's what kind of shape you are in that probably ought to be their focus."

**More information:** Waist circumference, body mass index, and postmenopausal breast cancer incidence in the Cancer Prevention Study-II Nutrition Cohort, M. Gaudet, B Carter, A Patel, L Teras, E Jacobs, S Gapstur, *Cancer Causes & Control*, April 2014 [DOI: 10.1007/s10552-014-0376-4](#)

Provided by American Cancer Society

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