

High insulin levels contribute to worse outcomes for Black women with aggressive form of breast cancer, research finds

June 3 2024



Credit: Unsplash/CC0 Public Domain

High insulin levels contribute to worse outcomes for Black women compared to white women who have an aggressive form of breast cancer called triple-negative breast cancer, according to a study presented at [ENDO 2024](#), the Endocrine Society's annual meeting in Boston, Mass.

Triple-negative breast cancer accounts for about 10–15% of all breast cancers. The term [triple-negative breast cancer](#) refers to the fact that the cancer cells do not have estrogen or progesterone receptors and do not make any or too much of the protein called HER2. The cells test 'negative' on all three tests. Triple-negative breast cancer differs from other types of invasive breast cancer in that it tends to grow and spread faster, has fewer treatment options and tends to have a worse prognosis.

"Obesity and type 2 diabetes, which are more common in Black women, are associated with poor breast cancer outcomes," according to medical student researcher Alexis Engel, B.A., of the Icahn School of Medicine at Mount Sinai in New York, N.Y.

"Black women have higher rates of triple-negative breast cancer and have a greater risk of death from breast cancer in comparison to white women."

The researchers wanted to uncover the factors contributing to the discrepancy in [survival rates](#). They investigated whether high levels of blood insulin in Black women contribute to breast cancer growth and spread, leading to worse outcomes.

They obtained tumor samples from 45 Black and 48 white women with triple-negative breast cancer and evaluated them for cellular signs of increased sensitivity to growth from insulin. They found signs of sensitivity to insulin were more prevalent in tumors from Black women

compared to [white women](#). Insulin signaling was also correlated with [obesity](#) and high blood insulin levels.

"These results suggest that high insulin levels in Black women may be contributing to cancer growth and worse breast cancer outcomes," Engel said.

Provided by The Endocrine Society

Citation: High insulin levels contribute to worse outcomes for Black women with aggressive form of breast cancer, research finds (2024, June 3) retrieved 19 June 2024 from <https://medicalxpress.com/news/2024-06-high-insulin-contribute-worse-outcomes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.