

Consuming vegetables linked to decreased breast cancer risk in African-American women

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Investigators from the Slone Epidemiology Center at Boston University School of Medicine (BUSM) have reported that African American women who consume more vegetables are less likely to develop estrogen receptor-negative breast cancer than women with low vegetable intake. The study results, published in the *American Journal of Epidemiology*, were based on data from the Black Women's Health Study (BWHS), a large follow-up study of 59,000 African American women from across the U.S. conducted by investigators at the Slone Epidemiology Center since 1995.

The investigators followed 51,928 participants in the BWHS for 12 years, during which time 1,268 cases of breast cancer developed. Among cases on which hormone receptor status was obtained, 35 percent were estrogen receptor-negative/progesterone receptor-negative (ER-/PR-) breast cancers. The incidence of ER-/PR- breast cancer was 43 percent lower among women consuming at least two vegetables per day compared with women who ate fewer than four vegetables per week. [African American women](#) are more likely than white women to be diagnosed with estrogen receptor-negative tumors, which have a poorer prognosis than estrogen receptor-positive tumors.

According to the BUSM researchers, specific types of vegetables may play a greater role in reducing breast cancer risk. The investigators reported that high intake of cruciferous vegetables in particular may be

associated with reduced risk of breast cancer overall. Cruciferous vegetables, which include broccoli, mustard and collard greens, and cabbage, are sources of glucosinolates, which may play a role in preventing the development of breast cancer through their effects on both estrogen metabolism and detoxification enzymes. The researchers also observed evidence suggesting that increased carrot consumption may be associated with lower risk of [breast cancer](#). Carrots are rich sources of carotenoids, which may reduce [cancer risk](#) through their antioxidant properties.

Provided by Boston University Medical Center

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