

Cancer risk for African-American women with benign breast disease factors, study finds

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A Wayne State University researcher has identified characteristics in benign breast disease associated with future cancer risk in African-American women.

Michele Cote, Ph.D., associate professor of oncology in the School of Medicine and the Barbara Ann Karmanos Cancer Institute, recently reviewed data from about 1,400 20- to 84-year-old [African-American women](#) who underwent [breast biopsies](#) between 1997 and 2000. Researchers identified biopsies that showed benign [breast disease](#) (BBD) and also tracked subsequent breast cancers.

BBD is an established risk factor for breast cancer among Caucasian [women](#), Cote said, but less is known about it in African-American women, who tend to get breast cancer earlier, in more aggressive forms and die more frequently from it.

In "Benign Breast Disease and the Risk of Subsequent Breast Cancer in African American Women," published recently in the journal [Cancer Prevention Research](#), she said 68 percent of women studied showed nonproliferative BBD, and 29 percent had the proliferative form of the disease without atypia, a state in which cells are not growing normally but are not cancerous.

The remaining 3 percent showed proliferative BBD with atypia, a

percentage similar to a group of [Caucasian women](#) studied recently by the Mayo Clinic. Women in Cote's study with the proliferative form of the disease with atypia were three times as likely to develop breast cancer as women without proliferative disease.

A number of pathological characteristics are associated with BBD and breast cancer. Her group examined several of those, including the presence of cysts, fibrosis and atrophy of breast components, known clinically as lobular involution.

Another characteristic, columnar alteration, a variation in the way cells are structured, was shown to be associated with increased [breast cancer risk](#). Cote said because columnar alterations are highly correlated with proliferative disease, further study of the independent effects of both could be valuable.

Her team wanted to see if characteristics Mayo researchers found in white women increase or decrease risk in the same ways in black women.

"Hopefully, this eventually means the risk models that will be developed will be similar if not identical for white and black women, which simplifies usage," Cote said. "The question is, what are those pathological features that actually increase risk, because not all benign biopsies are the same."

She said her study marks a successful collaboration between Wayne State, Karmanos and the Mayo Clinic that helps identify those at greatest risk for breast cancer and lays the groundwork for studying additional pathological characteristics.

"Better characterization of the risk of breast cancer among women with BBD, considering both ethnicity and detailed molecular findings, can

lead to better surveillance, earlier diagnosis and, potentially, improved survival," Cote said.

Cote received funding in 2012 from Susan G. Komen for the Cure to continue her research in the Detroit area on benign breast disease and the risk of [breast cancer](#) in African-American women.

Provided by Wayne State University

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