

Researchers use supplement, designed at Ohio State University, in breast cancer prevention study

Angela Townsend, The Plain Dealer By Angela Townsend, The Plain Dealer Email the author | Follow on Twitter

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Ohio State University has begun a clinical trial to study whether dietary interventions – specifically a supplement created by OSU researchers -- can help prevent **breast** cancer in women who are considered at high risk for the disease who don't want to take hormone or other drug therapy as a precaution.

Several years ago, pharmacokinetics experts at **OSU's Comprehensive Cancer Center** – people who study how the body processes drugs -- designed a supplement called nanoemulsion curcumin to help the body absorb higher levels of curcumin, a component of the spice **turmeric**.

Curcumin is an antioxidant and is believed to be helpful in managing inflammation in the body. Recent clinical trials have studied curcumin supplements in healthy patients

Dr. Lisa Yee OSU

and patients with conditions such as asthma, depression, diabetes, schizophrenia, and various cancers.

The OSU-developed supplement was made to help the body absorb curcumin more effectively. The trial was designed to see if the supplement can reduce inflammatory changes in breast tissue (specifically fat) thought to contribute to breast cancer development.

"I have high hopes that we'll see a decrease in inflammatory changes," said trial principal investigator **Dr. Lisa Yee**, who designed the study, which is enrolling women with chronic inflammation and a body mass index of 30 or higher. The women also are considered to have a **high risk** for the disease – either because of personal or family history – and who have a high body mass index. For three months, half will get a low dose of the nanoemulsion curcumin supplement, while half will get a higher dose.

Judy DePinto of Columbus is one of three women currently taking part in the study. Diagnosed with earlystage breast cancer 10 years ago, she has never taken anything to help prevent a recurrence.

In the two months that she has been taking the supplement DePinto, 62, has noticed that she has not been bothered as much by arthritis in her left knee. Self-described as overweight, DePinto said she also has lost six pounds.

"I'm very encouraged by it," DePinto said of the trial, the only drawback of which is that she has to avoid foods with cumin or turmeric. "But it's not so much about me, I'm doing it to help other people."

Because patients are only on the study for three months, longer observational studies will have to be conducted to see what impact the supplement has on preventing breast cancer or the recurrence of the disease, Yee said.

"It's becoming increasingly clear that inflammation – at a low-grade, chronic level that you find in someone who is obese – can lead to other problems," she said.

"This is something I talk about endlessly with patients: Watch your diet, achieve and maintain an optimum weight," said Yee, a surgical oncologist at OSU's **Stephanie Spielman Comprehensive Breast Center**. "If we can find a number of dietary agents and lifestyle [modifications], hopefully we'll be able to get a handle on it."

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