

"Dr. Stephen Chaney"

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Subject: Is Soy OK For Women With Breast Cancer?

Dr. Stephen Chaney is a frequent spokesman for health and nutrition issues. As a professor of biochemistry, biophysics and nutrition at the University of North Carolina, Chapel Hill, he teaches nutrition to medical students and has conducted a cancer research project for nearly 30 years. His name is on over 80 published studies in peer-reviewed journals.

You've probably heard the warnings: "Soy may increase the risk of breast cancer!" "Women with breast cancer shouldn't use soy!"

The first warning was never true. Numerous clinical studies have shown that consumption of soy protein is associated with a lower risk of developing breast cancer.

Furthermore, the science behind the second warning has never been very strong. The concerns that soy might stimulate the growth of breast cancer cells was based primarily on cell culture experiments and one experiment in mice - even though a second experiment in mice came to the exact opposite conclusion.

However, the possibility that soy isoflavones could stimulate the growth of estrogen- responsive breast cancer was biochemically plausible because soy isoflavones bind to the estrogen receptor and have a very weak stimulatory effect (much weaker than estrogen itself).

Even that evidence was not definitive because soy isoflavones also turn on several tumor suppressor pathways in breast cells and help strengthen the immune system - so they could just as easily inhibit the growth of breast cancer cells.

However, because the concerns were plausible and had not been definitively disproved, most experts, including me, have recommended that women with estrogen- responsive breast cancer might want to avoid soy protein.

Well a definitive study has finally been performed and it turns out for women with breast cancer, consumption of soy foods actually decreases their risk of breast cancer recurrence and dying from breast cancer.

The study was reported in the December 2009 issue of the Journal of the American Medical Association by researchers at Vanderbilt University and Shanghai Institute of Preventive Medicine.

It was a large, well designed, study that enrolled 5042 Chinese women aged 20 to 75 years old who had been diagnosed with breast cancer and followed them for an average period of 3.9 years.

The women were divided into four groups based on the soy content of their diet (ranging from 5 grams/day to 15 grams/day).

The results were clear cut. Breast cancer survivors with the highest soy intake had 25% less chance of breast cancer recurrence and 25% less chance of dying from breast cancer than the women with the lowest soy intake.

The effect was equally strong for women with estrogen receptor-positive and estrogen receptor negative cancers, for early stage and late stage breast cancer and for pre- and post-menopausal women.

In short this was a very robust study. The study also showed that soy protein intake did not interfere with tamoxifen. The reduction in the risk of breast cancer recurrence & death was just as great whether the breast cancer survivors were taking tamoxifen or not.

In fact, tamoxifen was protective only for women with low soy intake. It conferred no extra protection for the women at the highest level of soy intake. What does this mean for you if you are a breast cancer survivor? I personally feel that this study is clear cut enough that breast cancer survivors no longer need to fear soy protein as part of a healthy diet.

However, it is important to recognize that this is a single study. It is a very good study, but it is just one study. As a scientist and a cancer researcher I would like to see this study confirmed by other studies before recommending that all women who have had breast cancer should add soy protein to their diets. It may turn out that some women will benefit much more from using soy protein than others.

Similarly, this study suggests that soy protein does not interfere with tamoxifen. But the use of tamoxifen after breast cancer remission is a medical treatment - and all medical treatments should be discussed with your doctor.

Finally, I would like to point out that a number of previous studies have suggested that isolated isoflavones may not have the same benefits as soy protein foods containing the isoflavones - so I don't recommend skipping the soy protein and opting for an isoflavone supplement instead.

To Your Health!
Dr. Stephen G Chaney