

Perspective on Breast Cancer and Soy Controversy

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The soy and breast cancer controversy has been around a long time. It persists despite an abundance of human research supporting the safety and possible benefit of soyfood consumption by breast cancer patients. In general, health professionals are aware of this research. Hopefully, this information will be efficiently conveyed to the public at large.

It's been about 20 years since the controversy began in earnest. Conceptually, the estrogen-like effects of isoflavones, which were recognized in the 1950s, provided a theoretical basis for concern.¹ However, the prevailing view among scientists through the first half of the 1990s, was that soyfoods would function as anti-estrogens and reduce the risk of breast cancer, perhaps improving the prognosis of breast cancer patients. In the 1990s, the estrogen receptor antagonist, tamoxifen, was the drug of choice for treating patients with estrogen-sensitive breast cancer.²

The view of soyfoods and isoflavones began to change quite dramatically beginning in the late 1990s because of findings from a series of mouse studies that began to be published.³ These studies showed that the isoflavone genistein stimulated the growth of existing estrogen-sensitive tumors in athymic ovariectomized mice implanted with human estrogen receptor-positive human breast cancer cells. Despite subsequently published clinical and epidemiological studies refuting these studies, the soy-breast cancer controversy is still with us today.

That the controversy continues to exist in the minds of much of the public despite the evidence is not entirely surprising. It is hard to change public opinion that has been in place for so long. Even in Hong Kong, a country where soyfoods are part of the traditional diet, recent research shows breast cancer patients modestly reduced their soyfood consumption after their diagnosis.⁴

Over the past 6 years, leading health agencies have given soy (and/or isoflavones) a clean bill of health with respect to breast cancer. These agencies include the American Cancer Society, the American Institute for Cancer Research, the World Cancer Research Fund International, the Senate Commission on Food Safety of the German Research Foundation, the European Food Safety Authority and the U.S. Food and Drug Administration. And yet, concerns about soy causing breast cancer or worsening the prognosis of breast cancer survivors continues to be the number one issue of concern among consumers.

In part this is may be because most consumers likely believe, simply put, that it is better to be safe than sorry. After all, you can have a happy and healthy life without eating soyfoods. In part it is because much of the public undoubtedly feels that nutrition scientists continually change their minds and have lost trust in nutrition authorities.⁵ After all, for a long time, many scientists

recommended that women with breast cancer and those at high risk of developing breast cancer avoid or limit their soy intake.⁶⁻⁸

I think, however, the biggest reason is that there was no single study supportive of the safety of soyfoods that made its way into public consciousness. The closest was the Shanghai Breast Cancer Survival Study, which was published in 2009 in the *Journal of the American Medical Association*.⁹ This statistically significant study found that post-diagnosis soy intake reduced breast cancer recurrence by 25 percent. Perhaps if this cohort study was conducted in the United States, it would have had more impact than it did.

Fortunately, the health professional community is, by and large, aware of the clinical evidence in support of the safety of soyfoods and the epidemiologic evidence indicating soyfood intake may reduce breast cancer recurrence and improve the survival of breast cancer patients. Hopefully, over time, health professionals will be able to convince the public that the human research is supportive of soyfoods so that all women can reap the benefits of soy.

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