Soy and Health

More and more people in the US are becoming familiar with soy-based foods like tofu, tempeh, miso, edamame, and soy milk. These foods are common in plant-based diets, and there is a lot of confusion about their health properties.

Much of the confusion relates to phytoestrogens: these are estrogen-like compounds that occur naturally in some plants. The most common phytoestrogens are isoflavones in soy and lignans in seeds. These compounds preferentially bind to estrogen receptors in the body, which means they can have a mild estrogen effect.

You might have heard the common false claim that soy causes an increased risk of breast cancer. But this has since been disproven by studies.

<u>So, what's the truth about soy?</u>

Soy does NOT cause breast cancer

Early research on breast cancer showed a correlation between hormone replacement therapy (medications containing estrogen and progesterone) and an increased risk of breast cancer. Because of this, researchers falsely assumed that phytoestrogen-containing foods like soy would also increase breast cancer risk. But this has since been disproven by many studies.

<u>High soy intake is actually linked to a REDUCED risk of breast</u> cancer and other cancers

When phytoestrogens preferentially bind to our body's estrogen receptors, they can kick estrogen out of its binding site. This substitution results in a generally weaker estrogen effect in the body, which may be significant in preventing estrogen-sensitive breast cancers.

<u>Soy consumption in breast cancer survivors is potentially linked</u> <u>to reduced breast cancer recurrence</u>

Studies have suggested that a diet high in isoflavones is linked to reduced breast cancer recurrence, thus suggesting that soy consumption is okay even in people who have previously been diagnosed with breast cancer.

Increased soy intake may be linked to improved bone health

Some studies suggest that a diet high in soy promotes improved bone health and a reduced risk of osteoporosis.

Not all soy products are equal

Highly processed soy-based products-plant-based meats and packaged foods, for example-do not provide the same health benefits and may even be harmful. Processed products generally contain high amounts of fat plus chemicals and fillers with potentially negative health effects. Products with "isolated soy protein" or "soy protein isolate" listed in the ingredients are usually highly processed and should generally be avoided.

Enjoy the benefits of 2-3 servings of soy per day

Examples of 1 serving of soy:

- 1 cup unsweetened soy milk
- ½ cup tofu
- 3 ounces tempeh*
- 1 tablespoon miso *
- 1/2 cup boiled soybean

* indicates fermented soy products, which are helpful for building a healthier gut microbiome.

The T. Colin Campbell Center for Nutrition Studies (CNS) advocates for a balanced whole food, plantbased (WFPB) diet, which includes a wide variety of plant-based foods. Individual nutrients or foods do not trump broader dietary patterns. Minimally processed soy-based foods can be a part of this diet despite common misconceptions. **Such products are associated with a lower incidence of breast cancer and other health benefits.**



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Last updated 2/20/2023