

## Soy

This fact sheet provides basic information about soy—uses, potential side effects, and resources for more information. Soy, a plant in the pea family, has been common in Asian diets for thousands of years. It is found in modern American diets as a food or food additive. Soybeans, the high-protein seeds of the soy plant, contain isoflavones—compounds similar to the female hormone estrogen. The following information highlights what is known about soy when used by adults for health purposes.

**Common Name**—soy

**Latin Name**—*Glycine max*

### What It Is Used For

People use soy products to prevent or treat a variety of health conditions, including high cholesterol levels, menopausal symptoms such as hot flashes, osteoporosis, memory problems, high blood pressure, breast cancer, and prostate cancer.

### How It Is Used

- Soy is available in dietary supplements, in forms such as tablets and capsules. Soy supplements may contain isoflavones or soy protein or both.
- Soybeans can be cooked and eaten or used to make tofu, soy milk, and other foods. Also, soy is sometimes used as an additive in various processed foods, including baked goods, cheese, and pasta.

### What the Science Says

- Research suggests that daily intake of soy protein may slightly lower levels of LDL (“bad”) cholesterol.
- Some studies suggest that soy isoflavone supplements may reduce hot flashes in women after menopause. However, the results have been inconsistent.
- There is not enough scientific evidence to determine whether soy supplements are effective for any other health uses.
- NCCAM is supporting ongoing studies of soy, including its effects on women’s arteries and bones after menopause.

### Side Effects and Cautions

- Soy is considered safe for most people when used as a food or when taken for short periods as a dietary supplement.
- Minor stomach and bowel problems such as nausea, bloating, and constipation are possible.

- Allergic reactions such as breathing problems and rash can occur in rare cases.
- The safety of long-term use of soy isoflavones has not been established. Evidence is mixed on whether using isoflavone supplements, over time, can increase the risk of endometrial hyperplasia (a thickening of the lining of the uterus that can lead to cancer). Studies show no effect of dietary soy on risk for endometrial hyperplasia.
- Soy's possible role in breast cancer risk is uncertain. Until more is known about soy's effect on estrogen levels, women who have or who are at increased risk of developing breast cancer or other hormone-sensitive conditions (such as ovarian or uterine cancer) should be particularly careful about using soy and should discuss it with their health care providers.
- Tell your health care providers about any complementary and alternative practices you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

## Sources

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## For More Information

Visit the NCCAM Web site at [nccam.nih.gov](http://nccam.nih.gov) and view:

- *What's in the Bottle? An Introduction to Dietary Supplements* at [nccam.nih.gov/health/bottle/](http://nccam.nih.gov/health/bottle/)
- *Herbal Supplements: Consider Safety, Too* at [nccam.nih.gov/health/supplement-safety/](http://nccam.nih.gov/health/supplement-safety/)

## NCCAM Clearinghouse

Toll-free in the U.S.: 1-888-644-6226

TTY (for deaf and hard-of-hearing callers): 1-866-464-3615

E-mail: [info@nccam.nih.gov](mailto:info@nccam.nih.gov)

## CAM on PubMed

Web site: [nccam.nih.gov/camonpubmed/](http://nccam.nih.gov/camonpubmed/)

## NIH Office of Dietary Supplements

Web site: [www.ods.od.nih.gov](http://www.ods.od.nih.gov)

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