

## You Should Know

# Cranberries for UTIs

It is estimated that one in every two women experience a urinary tract infection (UTI) at least once in their life. UTIs are more common for women because of their anatomy, but the risks increase for men over 50, particularly those with enlarged prostates. Most UTIs are caused by the bacterium *Escherichia coli* (*E. coli*), typically found in the digestive tract. The use of cranberries for UTI prevention and treatment has been around for decades, but is there any truth to the claims?

**Cranberry Compounds.** Cranberries contain a mixture of anthocyanins, flavonols and proanthocyanidins, which have anti-inflammatory properties that may lessen and help prevent symptoms of a UTI. In addition, proanthocyanidins combat the colonization of *E. coli* in the bladder by acting as a shield to prevent it from attaching to the bladder wall. The acidic compound hippuric acid, produced by the body when you drink cranberry

juice, works as an antibacterial. The acid production was viewed as a primary benefit of drinking cranberry juice for UTIs, but it was found that the amount of juice needed to make enough hippuric acid to be effective can be up to eight glasses a day, so this reasoning has less support.

**The Science.** The research and opinion on cranberries as a treatment for UTIs is mixed. Several studies support that cranberry juice can reduce UTI occurrence, especially for women with a history of chronic UTIs. There are also promising results in studies on cranberry extract or capsules in reducing UTI occurrence. A recent study published in the *American Journal of Obstetrics and Gynecology* found that two cranberry capsules a day (equal to two 8-ounce servings of juice) reduced UTI occurrence by 50 percent in women following gynecological surgery. Evidence supporting cranberry juice or extract as a means of treating or healing a UTI is scarcer and a 2012 *Cochrane Review* concluded that there is not enough evidence to support any recommendations



Cranberry compounds may help prevent UTIs.

of cranberries for UTIs. The review is the most recent of its kind, since newer research reviews lack its scope.

**The Bottom Line.** Despite promising results from some studies, the debate among experts on the efficacy of cranberries for UTIs continues. Most support is given to the idea that cranberries may reduce frequency of UTIs in women with a history of chronic infections and cranberry capsules may be a more practical approach. Always consult with a doctor before increasing cranberry in your diet through juice or capsules, as it may interact with certain cardiac medications such as warfarin, dicoumarol, and anisindione. [E](#)

—Esther Ellis, MS, RD

# Phytoestrogens Benefits in Balance

Confusions over phytoestrogens, natural components of plant foods abound, with myths about their role in increasing cancer risk, infertility, and triggering growth of breast tissue in men. However, these foods may provide benefits when consumed as part of a balanced diet.

**What They Are.** Phytoestrogens are polyphenolic compounds found in plants, such as legumes and grains. They encompass a number of classes of compounds, including isoflavones, lignans, coumestans,

stilbenes, and prenylflavonoids. Their name says it all, as phytoestrogens exhibit mild estrogenic and antiestrogenic activity in the body. They are similar structurally to the endogenous estrogen hormone, estradiol and as such bind to estrogen receptors.

**What They Do.** The evidence is mixed on whether phytoestrogens exert health benefits in humans. Phytoestrogens have received the most attention for their potential to alleviate symptoms of menopause. They also have been linked to lowering risks of cardiovascular disease, breast cancer, type 2 diabetes, and osteoporosis. Isoflavones from soy have been studied extensively, showing some promise for their potential to relieve menopausal symptoms. The North American Menopause Society concluded that increasing soy, isoflavone products, and other phytoestrogens can reduce menopausal symptoms in some women, but not all.

Some studies have found lignans may lower risk of breast cancer in postmenopausal women. A review in *Fertility*

and *Sterility* found that when consumed during menopause, phytoestrogens exert a positive effect on bone density, cholesterol levels and insulin resistance, but not in post-menopausal women.

As for adverse effects, although animal studies have shown some evidence for reproductive problems, there is little evidence to support phytoestrogens, especially when consumed from whole foods, cause infertility in humans or male feminization. With that said, there is still a need to discern the safety of consuming large quantities of isolated phytoestrogens from dietary supplements.

**What to Do.** As part of the diet, foods containing naturally occurring phytoestrogens are regarded as safe and may even be beneficial. High intakes from supplements need to be further evaluated for safety and efficacy. Phytoestrogens from whole plant foods act synergistically with other nutrients and food components, but may behave quite differently when isolated in supplements. Play it safe and obtain phytoestrogens from whole foods as part of a balanced diet for the most nutritional benefit. [E](#)

—Andrea N. Giancoli, MPH, RD

Phytoestrogens in Food	
PHYTOESTROGEN CLASS	FOOD SOURCES
Isoflavones	Soy beans, legumes
Lignans	Whole grains, flax seeds, sesame seeds, split peas, lima beans, pinto beans, alfalfa and clover sprouts, fruits, vegetables
Coumestans	Soybean and clover sprouts, legumes; small amounts in Brussel sprouts
Stilbenes (resveratrol)	Grapes, peanuts, red wine
Prenylflavonoids	Hops, beer