

# **Cranberry & Urinary Tract Infections (UTIs)**





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### How do UTIs occur?

Most UTIs are caused by bacteria from the colon and rectal area. The most common of these bacteria, *E.coli*, is responsible for more than 80% of all UTIs.<sup>2</sup> Bacteria usually enter the urinary tract through the urethra. This is the tube that carries urine out of the body. Once inside, these bacteria use special hair-like structures called P-fimbria to stick to the wall of the bladder. Once attached, the bacteria can multiply and cause a UTI.

### What are the risk factors for UTIs?

- **Being female.** UTIs are more common in women because the female urethra is shorter and therefore bacteria have less distance to travel to reach a woman's bladder.
- **Being sexually active.** Intercourse increases the chance that bacteria from the rectal and vaginal area will enter the urethra.
- **Menopause.** Lack of estrogen can allow the overgrowth of bacteria at the urinary opening.

### Are cranberry products helpful?

Yes, while cranberry products cannot treat a current UTI, research shows that cranberry products can reduce the risk of future UTIs by about 40-50%.<sup>1</sup> Cranberry products are safe and effective when appropriately standardized and dosed.

### If I currently have a UTI, what should I do?

Contact your healthcare provider. Do not attempt to treat it yourself. Once you have a UTI, cranberry products cannot help. The only reliable treatment for a current urinary tract infection is an antibiotic. You can begin taking a cranberry product along

with an antibiotic to help reduce your risk of future infections.

### How do cranberry products prevent future UTIs?

Most UTIs occur when bacteria enter through the urethra and stick to the bladder wall. Cranberries contain a class of compounds called proanthocyanidins (PACs) that bind to bacterial P-fimbria and prevent them from sticking to the bladder wall.<sup>3</sup> This makes it easier for the bacteria to be flushed out in the urine before a UTI can start.

### How much cranberry is needed for prevention?

Studies have shown that 36 mg of PACs per day are needed for prevention of UTIs. Drinking 8-10 ounces of cranberry juice cocktail provides this dose of PACs.<sup>4</sup> For those trying to manage their weight, a cranberry supplement can provide a low-calorie alternative to sugary cranberry juice cocktail.

### Are all cranberry supplements the same?

No, cranberry supplements vary widely in their content, labeling, and marketing claims.

### What should I look for in a cranberry supplement?

*Choose a product with 36 mg of PACs per daily dose.*

The amount of PACs recommended for reducing UTI risk is 36 mg per day.<sup>4</sup> Check the Supplement Facts label. If a product does not list the PAC content or does not provide 36 mg of PACs daily, it probably will not be effective. Most products do not contain

enough PACs, and do not even list PAC content on their label.

***Choose a product made with a whole cranberry extract.***

A whole cranberry extract, from cranberry juice, skins, flesh, and seeds, provides a balanced spectrum of PACs and other active cranberry phytochemicals that work together to keep bacteria from sticking to the bladder wall.

***Look for independent, third-party certification.***

Do not believe product or label claims that are not independently verified for content accuracy and purity by a third-party certification program. Look for a product with the NSF® International or USP® symbol on the bottle to ensure the product has been independently tested and certified for PAC content.

***Choose a product without cellulose.***

Cellulose is often used in nutritional supplements as a binder, to hold ingredients together to form a tablet. Cellulose may also bind to cranberry PACs and can make the PACs less effective. Many cranberry supplements contain cellulose binders and may be less effective.

**For more information,  
speak to your healthcare provider.**

**References**

1. Wang et al. Cranberry-containing products for prevention of urinary tract infections in susceptible populations: a systematic review and meta-analysis of randomized controlled trials. *Arch Intern Med.* 2012; 172(13):988-96.
2. Bien et al. Role of Uropathogenic Escherichia coli Virulence Factors in Development of Urinary Tract Infection and Kidney Damage. *Int J Nephrol.* 2012; Article #681473. 15 pages.
3. Howell, AB. Bioactive compounds in cranberries and their role in prevention of urinary tract infections. *Mol Nutr Food Res.* 2007; 51(6):732-7.
4. Krueger et al. Quantifying and characterizing proanthocyanidins in cranberries in relation to urinary tract health. *Anal Bioanal Chem.* 2013; 405(13):4385-95.