

Berry Juices, Fermented Dairy Products and Female UTIs

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A recent study by Kontiokari, Laitinen et al., involving 139 women (mean age: 30.5 years), indicated that subjects who consume fresh juices (especially berry) and fermented milk products containing probiotic bacteria, experienced significantly fewer urinary tract infections (UTIs) than women who consumed these food items infrequently.¹ In this study, consumption of fermented dairy products (such as yogurt) three or more times per week was associated with a 79-percent reduction in risk of developing a UTI, compared to women consuming fermented dairy products less than once per week. For every deciliter of fruit juice consumed, women also appeared to reduce their risk by 34 percent, as an independent risk factor for this condition.

The authors of this study suggest that a number of factors may explain the mechanism of prevention provided by these foods. Most berries, especially those of the genus *vaccinium*, are rich in flavonoids, such as epicatechin (also found in green tea), a potent inhibitor of the adhesion of coliform bacteria to human cells. Plants produce flavonoids in response to microbial infection, suggesting a role for these substances in antimicrobial defense. As a rule, berries are a rich source of epicatechin; however, apples, cherries and plums also contain respectable levels. Therefore, it is thought that higher circulating levels of epicatechin may reduce the tendency of bacteria to adhere to the wall of the urinary tract, thereby reducing the chances of a UTI developing.

In this study, milk was not associated with a decreased risk of primary or recurrent UTI, but the use of fermented dairy products was associated with a significant reduction in risk. This evidence suggests that fermented dairy products are able to favorably alter the microflora concentration of the large bowel, due to their concentration of live, gut-friendly bacteria (i.e., *lactobacillus acidophilus*). This bacteria is known to colonize in the large intestine and crowd out other undesirable bacteria, including coliform bacteria, which is responsible for UTI.

UTI is caused by bacteria in the stool, which ascend to the urinary tract. Thus, any intervention that decreases the fecal concentration of coliform bacteria (as with *lactobacillus acidophilus*), or reduces the ability of this bacteria to adhere to the wall of the urethra (epicatechin), are likely to be useful interventions in the prevention of UTI, as suggested in this study.

Historically, women (mostly on the advice of holistic health practitioners) have used cranberry juice and its extract products to help reduce recurrence of UTI; some small clinical trials support this intervention. A study published in the *American Journal of Clinical Nutrition* lends significant scientific support to suggest that dietary interventions of this nature should be considered a safe and effective means by which women can reduce UTI infections.

An important side note to this study is that frequency of intercourse also was associated with increased risk of UTIs. Women who had intercourse three or more times per week had a 2.7-times-greater chance of developing UTIs than women who had intercourse less than once per week. As this is believed to be related to the physical transfer of bacteria from the large bowel to the urethra, attention to hygiene in this regard is likely to help women engaged in frequent intercourse

reduce their risk of UTI. Some gynecologists encourage patients to wash themselves after any sexual activity involving the vaginal region.

More than half of all women experience at least one urinary tract infection during their lifetime. As such, holistic practitioners should be aware of the natural interventions that have been shown to be effective in preventing this condition. The aforementioned study confirms my initial contention in this article: Probiotic bacteria should be considered an important natural and safe intervention to help women reduce their risk. Due to the high frequency of UTIs in North American women, health practitioners should consider educating their female patients on the evidence-based research supporting the role of nutrition and supplementation in helping reduce the risk and recurrence of this common and often stubborn problem.

Reference

1. Kontiokari T, Laitinen J, et al. Dietary factors protecting women from urinary tract infections. *Am J Clin Nutr* 2003;77:600-4.

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