

Study finds lack of benefit of cranberry in reducing urinary tract infections among older women

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Among older women residing in nursing homes, administration of cranberry capsules compared with placebo resulted in no significant

difference in presence of bacteriuria plus pyuria (presence of bacteria and white blood cells in the urine, a sign of urinary tract infection [UTI]), or in the number of episodes of UTIs over 1 year, according to a study published online by *JAMA*. The study is being released to coincide with its presentation at IDWeek 2016.

Urinary tract infection is the most commonly diagnosed infection among nursing home residents. Bacteriuria is prevalent in 25 percent to 50 percent of women living in [nursing homes](#), and pyuria is present in 90 percent of those with bacteriuria. Cranberry capsules are an understudied, nonantimicrobial prevention strategy used in this population. Manisha Juthani-Mehta, M.D., of the Yale School of Medicine, New Haven, Conn., and colleagues randomly assigned 185 women (average age, 86 years; with or without bacteriuria plus pyuria at study entry) residing in nursing homes to two oral cranberry capsules, each capsule containing 36 mg of the active ingredient proanthocyanidin (i.e., 72 mg total, equivalent to 20 ounces of cranberry juice) or placebo administered once a day.

Of the 185 study participants (31 percent with bacteriuria plus pyuria at study entry), 147 completed the study. Overall adherence was 80 percent. After adjustment for various factors, there was no [significant difference](#) in the presence of bacteriuria plus pyuria between the treatment group vs the control group (29.1 percent vs 29.0 percent). There were also no significant differences in number of symptomatic UTIs (10 episodes in the treatment group vs 12 in the control group), rates of death (17 vs 16 deaths), hospitalization, antibiotics administered for suspected UTIs, or total antimicrobial utilization.

"Many studies of [cranberry products](#) have been conducted over several decades with conflicting evidence of its utility for UTI prevention. The results have led to the recommendation that cranberry products do not prevent UTI overall but may be effective in [older women](#). This trial did

not show a benefit of cranberry capsules in terms of a lower presence of bacteriuria plus pyuria among older women living in nursing homes," the authors write.

"The continuing promotion of cranberry use to prevent recurrent UTI in the popular press or online advice seems inconsistent with the reality of repeated negative studies or positive studies compromised by methodological shortcomings. Any continued promotion of the use of cranberry products seems to go beyond available scientific evidence and rational reasoning," writes Lindsay E. Nicolle, M.D., F.R.C.P.C., of the University of Manitoba, Winnipeg, Manitoba, Canada, in an accompanying editorial.

"Some of this conviction is likely an interest of individuals or groups to promote the use of natural health products for clinical benefits, allowing avoidance of medical interventions and, potentially, giving women who experience recurrent UTI an element of personal control in managing their problem. The current emphasis on antimicrobial stewardship and limiting antimicrobial use whenever possible also may have some influence in the continued endorsement of [cranberry juice](#) or tablets as a nonantimicrobial strategy for management of UTI."

"Recurrent UTI is a common problem that is distressing to patients and because it is so frequent and costly for the health care system. It is time to identify other potential approaches for management. This certainly must include a wiser use of antimicrobial therapy for syndromes of recurrent UTI in women in long-term care facilities. Other possible interventions to explore in this and other populations may include, among other approaches, adherence inhibitors or immunologic interventions. Intellectual discussions and clinical trial activity should be redirected to identify and evaluate other innovative antimicrobial and nonantimicrobial approaches. It is time to move on from cranberries."

More information: *JAMA*, [DOI: 10.1001/jama.2016.16141](https://doi.org/10.1001/jama.2016.16141)
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