

# Can cranberry products be used to prevent UTIs?

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## Background

Urinary tract infections (UTIs) are a common occurrence in women, with approximately 60% of women experiencing at least one during their lifetime and with at least 30–40% of women experiencing recurrent UTIs.<sup>2</sup> UTIs are associated with decreased quality of life and increased anxiety and depression.<sup>3</sup> Early use of cranberries to treat UTI's by Native Americans has been documented<sup>4</sup> and since then cranberries have been commonly used as an alternate therapy for this condition. It is the proanthocyanidins isolated from cranberry fruit that appears to be the active ingredient.<sup>5</sup> It is thought that proanthocyanidins may act by inhibiting the adhesion of P-fimbriated uropathogenic strains of *Escherichia coli* to uroepithelial cells.<sup>5</sup> Without adhesion *E. coli* cannot infect the mucosal surface of the urinary tract and so the UTI is prevented.<sup>1</sup>

## Clinical bottom line

Cranberry products do indeed have a protective effect and seem to prevent recurrent UTI's in some individuals.<sup>1</sup> The evidence supports the use of cranberry products in women with recurrent UTI, children, and people with a susceptibility to a UTI due to an intervention (such as radiation treatment or those undergoing gynaecological surgery).<sup>1</sup> But there is no evidence currently to support the use of cranberry products in elderly men and women in institutions or pregnant women (see Table 1).<sup>1</sup>

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**Table 1.** Comparing the effect of any cranberry product versus placebo/control.

Outcome measured	Success	Evidence	Caveat
Symptomatic, culture-verified urinary tract infection	Cranberry products reduced the risk of recurrent UTI (RR 0.70, 95% CI 0.58–0.84)	This evidence is of moderate quality and is based on 6211 participants from 26 studies	There was no evidence to support the use of cranberry products in elderly men and women in institutions or pregnant women to reduce the risk of UTI's
Clinical urinary tract infection (symptoms without urine culture)	Cranberry products reduced the risk of UTI (RR 0.69, 95% CI 0.49–0.98)	This evidence is of moderate quality and is based on 1646 participants from 5 studies	
Gastrointestinal affects	Cranberry products were not shown to produce any significant gastrointestinal problems	This evidence is of moderate quality and is based on 2166 participants from 10 studies	

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