

## Cranberry

Latin name: *Vaccinium macrocarpan* (American), *Vaccinium oxycoccus* (European),  
*Oxycoccus quadripetalus* (European)

Family: Ericaceae

### **Miscellaneous:**

- Lacks any recognized antiseptic or antimicrobial properties.
- Previously thought that cranberries increase urine acidity (which is true), thereby hindering bacterial survival.

### **Uses:**

Adjunctive treatment of UTI and prophylaxis of infection. Thought to be useful in aiding the treatment of other infections of epithelial-binding bacteria, as well.

### **Mechanism:**

The actual mechanism by which cranberries inhibit bacterial growth is not by acidifying the environment, but rather by preventing microorganisms from attaching to epithelial cells that line the urinary tract. This is due to 2 factors:

- 1) Fructose inhibits type 1 fimbrial adhesion.
- 2) Cranberries and blueberries contain a vaguely identified, high molecular weight compound (found only in cranberry and blueberry) that synergistically combats bacterial attachment.

Scientific trials have verified that this compound specifically acts to inhibit P fimbrial adhesion expressed by uropathogenic strains of *E. coli* by binding to bacterial surface.<sup>1</sup> The bacteria's inability to attach makes it easily excretable. Their consequent inability to bind renders them unable to cause infection.

### **Dosage:**

\*Patients should be advised that a manufacturer can claim 100% juice if the drink is sweetened with other juices, though it is not 100% cranberry.

UTI prophylaxis = 3 fl.oz./day (based on cranberry content of 33% or 1/3)

UTI treatment = 12-32 fl.oz./day

Capsules: 6 capsules ≈ 3 fl.oz.

Fresh: 1.5 oz. ≈ 3 fl.oz.

### **Contraindications/Side effects:**

Excessive consumption (3-4 quarts/day) may cause diarrhea.

**Citation References:**

1. Tyler, V., Robbers, J.: *Tyler's Herbs of Choice: The Therapeutic Use of Phytomedicinals*: 1999, pp. 96-100.

**General References:**

1. Tyler, V., Robbers, J.: *Tyler's Herbs of Choice: The Therapeutic Use of Phytomedicinals*: 1999, pp. 96-100.
2. Duke, J.: *Dr. Duke's Essential Herbs*: 1999, pp. 58-59.
3. Pierce, A., The American Pharmaceutical Association: *Practical Guide to Natural Medicines*: 1999, pp. 209-210.
4. Karch, S.: *The Consumer's Guide to Herbal Medicine*: 1999, pp. 73-74.
5. Facts And Comparisons: *Guide To Popular Natural Products*: 1999, pp. 61-62.