New Research Reveals How Cranberry Products Prevent Urinary Tract Infections

Date: 10 Mar 2009
Summary: *Urinary tract infections (UTIs) burden the healthcare system with more than $2 billion in treatment costs each year an urinary catheter in place.*

10/03/09 Chemicals present in cranberries—and not the acidity of cranberry juice, as previously thought—prevent infection-causi the urinary tract, as documented in a report published in Journal of Medicinal Food, a peer-reviewed journal published by Mary A article is available free online at www.liebertpub.com/jmf

Urinary tract infections (UTIs) burden the healthcare system with more than $2 billion in treatment costs each year and are a com catheter in place. Adhesion of E. coli bacteria to cells lining the urinary tract is the first step in the development of a UTI. Chemica proanthocyanidins (PACs) prevent E. coli, which is the cause of about 85% of UTIs and 90% of cases of acute pyelonephritis, fro cells by affecting the surface properties of the bacteria.

Paola Pinzón-Arango, Yatao Liu, and Terri Camesano, from Worcester Polytechnic Institute, in Massachusetts, exposed E. coli g cocktail or cranberry PACs and measured the adhesion forces between the bacteria and a silicon surface using atomic force micr the bacteria were exposed to either the cranberry juice or the PACS the greater the decrease in bacterial attachment. In the articl Adhesion Forces and Implications for Escherichia coli—Uroepithelial Cell Attachment," the authors also concluded that this effect an environment without cranberry juice or PACS regained the ability to attach to the model surface.

"Cranberries, one of only three species of fruits native to North America, has a long history of medicinal food use. Native America and kidney ailments hundreds of years ago. The article by Camesano and co-workers is a milestone in the understanding of its m Hendler, PhD, MD, Co-Editor-in-Chief of the Journal, and Clinical Professor of Medicine, University of California, San Diego.