

# The same efficacy of a low-dose antibiotic for UTI prevention – without the side effects and long-term resistance

Only **ellura** contains 36 mg PAC (proanthocyanidins) in a once daily capsule – the proven amount necessary for bacterial anti-adhesion.<sup>1</sup> The PAC in ellura attaches to the P. fimbriae of UTI-causing bacteria, so the bacteria doesn't attach to the bladder wall.

If you're looking for a non-antibiotic alternative and want to empower women to take control of UTI prevention, consider medical-grade ellura.



## 64 Variability of commercial cranberry products for the prevention of uropathogenic bacterial adhesion

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**OBJECTIVES:** Cranberry has been known to reduce the number of urinary tract infections. Research suggests that the proanthocyanidins (PACs) in cranberry fruit actively prevent bacterial adhesion to the bladder wall, thereby preventing infection. We sought to measure the levels of PACs in commercially available cranberry products.

**MATERIALS AND METHODS:** Seven cranberry products were tested for bacterial anti-adhesion activity using a hemagglutination assay specific for P-fimbriated Escherichia coli. PACs were isolated using the gravimetric technique (C-18 followed by Sephadex LH-20 solid phase chromatography) to determine levels in each product and tested for anti-adhesion activity on an equal weight basis (starting concentration of 5 mg/mL).

**RESULTS:** Whole products anti-adhesion activity ranged from 0.47 to 60 mg/mL. PAC levels ranged from 0.56 to 175 mg/g. Whole product anti-adhesion activity for four of the products was not able to be detected. See Table 1.

**CONCLUSION:** There is a large amount of variability in the amount and bioactivity of PACs in commercially available cranberry product. In addition, there were several products that contained virtually no active component of cranberry.

### DISCLOSURE OF RELEVANT FINANCIAL RELATIONSHIPS:

Bilal Chughtai: Nothing to disclose; James C. Forde: Nothing to disclose; Amy Howell: Nothing to disclose.

| Product                           | PAC Level (mg/g) | Anti-adhesion (MIC) Whole Product (mg/mL) | Anti-adhesion (MIC) of PACs (ug/mL) |
|-----------------------------------|------------------|---|-------------------------------------|
| 1 Theracran                       | 25.4             | 3.5-7.5                                   | 156.0                               |
| 2 Walgreen's brand                | 4.0              | Negative                                  | 5000.0                              |
| 3 AZO Cranberry                   | 4.0              | 60  | 312.0                               |
| 4 <b>ellura</b>                   | 175.0            | 0.47                                      | 78.0                                |
| 5 Nature's Bounty Triple Strength | 1.2              | Negative                                  | 2496.0                              |
| 6 Trunature (gel cap)             | 1.4              | Negative                                  | 2496.0                              |
| 7 Cystex Liquid                   | 0.56             | Negative                                  | 312.0-624.0                         |

\*Brand names not published, however provided by authors. Data available upon request.



Compared to **6** other supplements only **ellura** passed the test:

- ✓ 36 mg PAC in one daily capsule (175 mg/g proanthocyanidins)
- ✓ Medical-grade
- ✓ Maximum bacterial anti-adhesion
- ✓ 5 out of 7 products had virtually none of the active ingredient required to help prevent UTIs

**ellura**<sup>®</sup>  
36 mg PAC (proanthocyanidins)<sup>DMAC</sup>