

Natural solution for urinary comfort


pacran[®]
Experience total urinary comfort



NATlife[™] 

Natural solution for urinary comfort

Market opportunities

Nearly half of all women will be affected by a UTI (Urinary Tract Infection) at least once in their lifetime. One in every three women suffering from a UTI will experience a recurrence within one year. Symptoms of UTI include frequent, painful urination and lower abdominal pain. UTIs may force some sufferers to restrict their activities, leading to absence from work or in some cases hospitalization and catheterization. UTIs are typically treated with antibiotics, but emerging antimicrobial resistance warrants the need for alternative therapeutic and preventive strategies.



Pacran[®]: evidence-based prevention

Cultivated in North America, Cranberries (*Vaccinium macrocarpon* Aiton) have been used for many centuries for their medicinal properties. Their therapeutic potential against UTIs has been documented in numerous reports. Cranberries appear to work by inhibiting the adhesion of uropathogenic *E. coli* to the uroepithelium, impairing colonization and subsequent infection. Despite this knowledge, an effective dose has not been clearly defined. Naturex's cranberry experts have developed Pacran[®] as a clinically proven daily prophylactic treatment for UTIs.

Cranberries
(*Vaccinium macrocarpon* Aiton)
used in Pacran[®] are cultivated
in North America



Premium characteristics

- ✓ Full spectrum of cranberry
- ✓ Most studied and proven cranberry product
- ✓ Protected by multiple patents
- ✓ Unmatched regulatory recognition

While most cranberry products focus only on the concentration of proanthocyanidins (PACs), Naturex has fully characterized and clinically substantiated Pacran[®]. It boasts two double-blind, controlled human clinical trials on urinary tract health, a human *ex-vivo* cross-over study, and two *ex-vivo* comparative cross-over studies. The product holds six US and three international patents. Pacran[®]'s unmatched level of substantiation has resulted in the achievement of government sanctioned urinary tract health claims (Health/Functional Food Claim from the Korean FDA).

Pacran[®]'s composition

PACs (HPLC)	>1.5%
PACs (Eur. Ph) mean value	7.2%
PACs (BL DMAC) mean value	0.4%

Pacran[®] is obtained from the whole fruit and provides the full spectrum of cranberry with a standardized level of bio-active proanthocyanidins (PACs), as well as other key cranberry components, such as phenolics, organic acids, fibers, fatty acids, proteins and sugars.

This full spectrum of cranberry makes Pacran[®] unique.

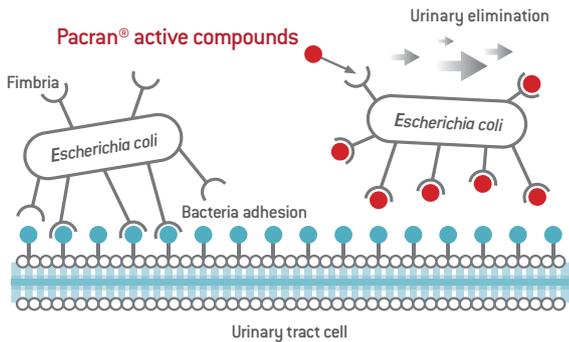
Scientific evidence

A 500 mg daily dose of Pacran®:

- Exhibits bacterial anti-adhesion activity
- Reduces the incidence of *E. coli* infections
- Reduces the incidence of recurrent Urinary Tract Infections

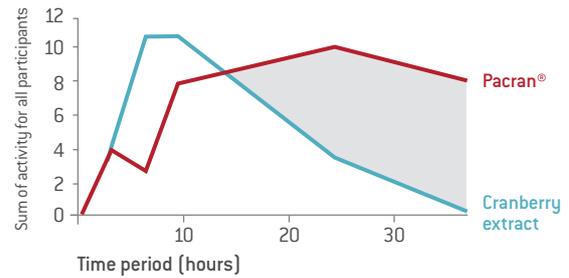
BACTERIAL ANTI-ADHESION ACTIVITY

Anti-adhesion mechanism of Pacran®



Cranberries inhibit the adhesion of *E. coli* to urinary tract cells, preventing biofilm formation and subsequent infection. Evidence from research published in 2011 and 2012 suggests that whole cranberry matrices actually outperform PAC-rich fractions.

Pacran® exhibits long-lasting bacterial anti-adhesion activity.



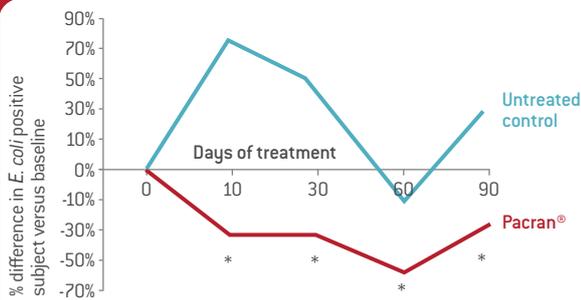
Ex-vivo study: Anti-adhesion activity in human urine: Pacran® versus Cranberry extract (Howell, 2009)

Pacran® continues to demonstrate increased activity even after 24 hours, while the PACs cranberry extract's activity drops off after only 10 hours. These results indicate Pacran®'s superior preventive potential over PAC-rich cranberry extracts.

INCIDENCE OF UTIs

500 mg of **pacran®**
Experience that urinary control

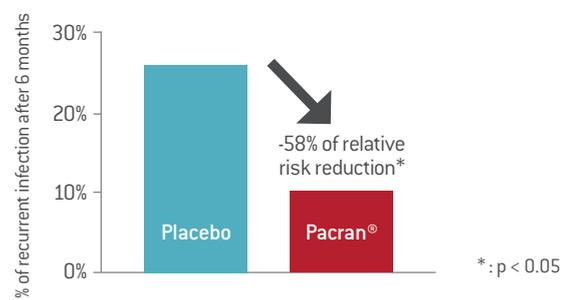
Pacran® reduces the incidence of *E. coli* infections.



Study 1: Randomized, double-blind, controlled clinical trial (Sengupta, 2011) * : p < 0.05 versus baseline

At 90 days, there was a 36% reduction of urinary *E. coli* infection reported in the Pacran® group. These results show that a daily dose of Pacran® reduces urinary *E. coli* levels when compared to baseline and consequently helps to support a healthy urinary tract.

Pacran® reduces the incidence of recurrent UTIs.



Study 2: Randomized, double-blind, placebo controlled, dose dependent clinical trial (Vostalova, pending)

A 180-day clinical trial was conducted on 176 women prone to UTIs in order to evaluate Pacran®'s ability to reduce recurrent episodes. Results indicated that a daily 500 mg dose of Pacran® reduced UTI recurrences by 58% compared to placebo.

Prevention of UTIs

Sengupta et al, 2011
Vostalova et al., pending
Howell, 2009, Howell, 2009
Howell, 2012



Almost half of all women will experience a Urinary Tract Infection during their lifetime, with some women being particularly susceptible to recurring episodes. Cranberry consumption has traditionally been associated with urinary tract health. However, until now an effective dose and product have not been clearly defined.

Made from the whole cranberry, Pacran® is a patent-protected proprietary cranberry product. Pacran® is the most extensively studied and scientifically proven cranberry product for urinary tract health.

Commercial name	Pacran® www.pacran.com
Complete name	Cranberry powder > <i>Vaccinium macrocarpon</i> Aiton
Appearance	Pink powder
Standardization	Proanthocyanidins (HPLC) >1.5%
Scientific results	500 mg Pacran® supplementation has been clinically proven to: <ul style="list-style-type: none">• Reduce recurrent UTIs• Reduce <i>E. coli</i>
Lifestyle	> Serene lifestyle
Claims	<ul style="list-style-type: none">• Helps support urinary tract health• May help support urinary health by reducing bacteria adhesion to urinary tract wall (KFDA approved claim)
Recommended dosage	500 mg/day
Safety and quality	No side effects have been reported in the clinical studies. No risks have been identified in the usual toxicological tests. Pacran® is guaranteed to be made from 100% cranberry and in compliance with current standards regarding the absence of GMOs and allergens as well as acceptable levels of heavy metals and pesticide residues. Before sale of the product, it must be ensured that the product meets all local legal requirements.



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