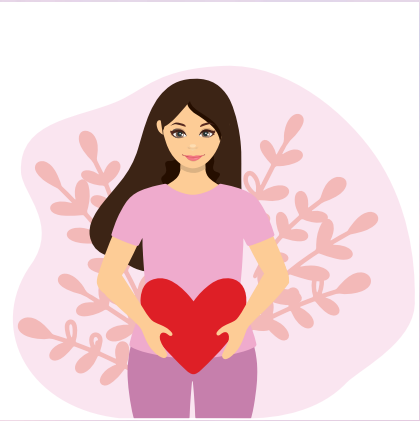


PROFESSIONAL  
TECHNICAL GUIDE

CARUSO'S VAGINAL HEALTH  
PROBIOTICS RANGE



Always read the label and follow the directions for use.

Address: 14 Shale Place Eastern Creek NSW Australia 2766 | Phone: 1300 304 480

Email: [customerservice@carusoshealth.com.au](mailto:customerservice@carusoshealth.com.au)



[carusoshealth.com.au](https://carusoshealth.com.au)



[carusoshealth](https://www.facebook.com/carusoshealth)



[carusosnaturalhealth](https://www.instagram.com/carusosnaturalhealth)





Dear Health Professional,

## Introducing Caruso's Natural Health

Established in June 1982, Caruso's Natural Health is a 100% Australian-owned family company supplying complementary medicines (vitamin, mineral and herbal supplements), to over 3,000 pharmacies and health food stores throughout Australia.

## An introduction to Caruso's Vaginal Health Probiotics

Caruso's Natural Health has developed three unique formulations specifically designed to help relieve symptoms of menopause, support urinary tract health and vaginal care for women. These formulations are anchored in the powerful benefits of probiotics, particularly those derived from the *Lactobacillus* family, which are naturally present in healthy vaginal and urinary tract microbiomes. Recognising the vital role these probiotics play, we have developed a comprehensive array of probiotic supplements tailored to support women throughout every stage of their life journey.

The Professional Technical Guide details the therapeutic benefits of Probiotics, on reviewing the Professional Technical Guide enclosed, you may see that Caruso's Vaginal Health probiotics could be beneficial for some of your patients.

If you require any further information, please visit [www.carusoshealth.com.au](http://www.carusoshealth.com.au) or email [customerservice@carusoshealth.com.au](mailto:customerservice@carusoshealth.com.au)

## Category leading products in pharmacy

The Caruso's range consists of more than 100 products and is still growing. Caruso's have many category leading products in pharmacy including the Quick Cleanse® Detox Program, Vitamin K2+D3, Fluid Away®, Super Magnesium Cream, Veins Clear®, Prostate Eze Max® [AUST L(A)] and WEE LESS®<sup>1</sup>.

Caruso's Natural Health products are manufactured in Australia, with each of our formulations manufactured in line with Australian Quality Standards under strict GMP (Good Manufacturing Practices).

Yours in good health,

Frank Caruso

Founder of Caruso's Natural Health

1. Quick Cleanse Detox: IQVIA National Pharmacy Scanout Data, Cleansing, Detoxification Kit, Value Sales, 52 weeks to 19.10.24; Vitamin K2: IQVIA National Pharmacy Scanout Data, Active Ingredient Vitamin K, Value Sales, 52 weeks to 19.10.24; Super Magnesium Cream, IQVIA National Pharmacy Scanout Data, Format Cream, Muscular Support Value Sales, 52 weeks to 19.10.24; Fluid Away: IQVIA National Pharmacy Scanout Data, Fluid Retention, Value Sales, 52 weeks to 19.10.24; Veins Clear: IQVIA National Pharmacy Scanout Data, Vein Care, Value Sales, 52 weeks to 19.10.24; Prostate Eze Max (AUST L A): IQVIA National Pharmacy Scanout Data, Prostate Health, Value Sales, 52 weeks to 19.10.24; WEE LESS: IQVIA National Pharmacy Scanout Data, Bladder Control, Value Sales, 52 weeks to 19.10.24.

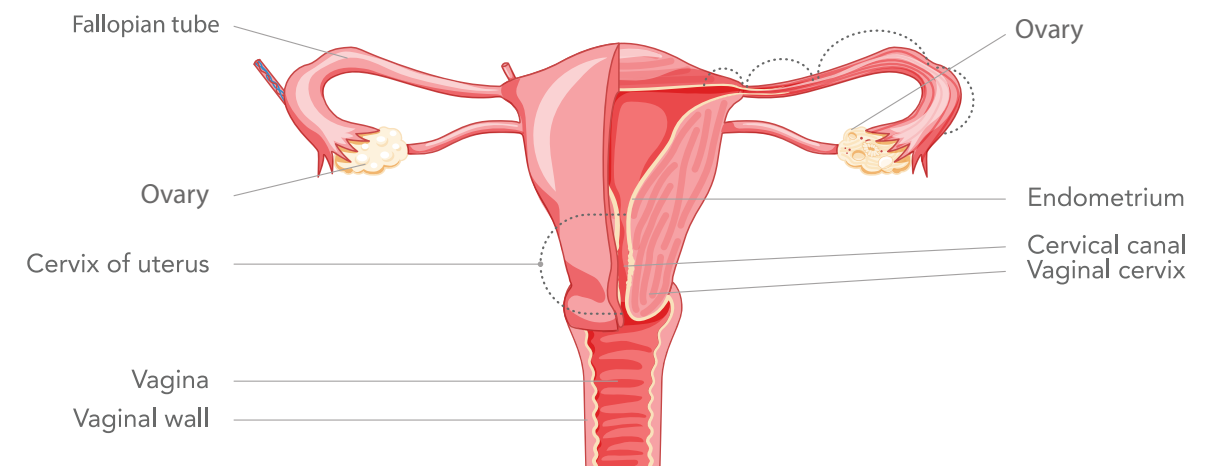
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## Anatomy of the Vagina and Female Urinary Tract

The vagina is a muscular, elastic tube that extends from the external genitalia to the cervix of the uterus. It is approximately 7.5 to 10 cm in length and has a structure characterised by several distinct layers.

The outermost layer is the mucosa, which is lined with stratified squamous epithelium, providing a barrier against pathogens while facilitating moisture through the secretion of vaginal fluid. The mucosa is also rich in glycogen, which, when metabolised by commensal *Lactobacillus* species, produces lactic acid, maintaining a slightly acidic environment (pH 3.8-4.5) that inhibits the growth of harmful microorganisms (Gholif, 2022).



Visual depiction of the female reproductive tract (FRT) Source: Gholif, 2022.

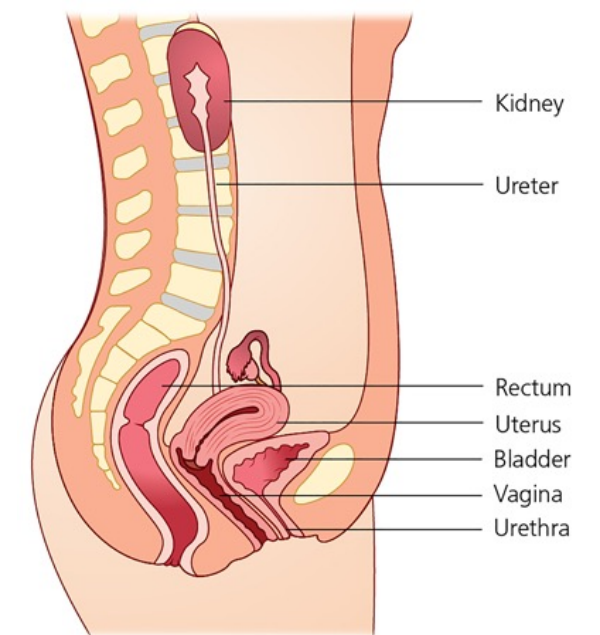
The female bladder, a key component of the urinary system, is primarily responsible for the storage and excretion of urine.

Anatomically, it is a hollow, muscular organ situated in the pelvic cavity, posterior to the pubic symphysis and anterior to the uterus and vagina.

The bladder has a capacity of approximately 300-600 millilitres in adults, though this can vary based on individual factors.

It connects to the kidneys via the ureters, which transport urine, and empties through the urethra.

The female urethra is relatively short, typically measuring about 3 to 4 centimetres in length. This shorter anatomical structure contributes to a higher susceptibility to urinary tract infections (UTIs) in women (Hickling, 2016).





# Probiotics for Women's Health

## Probiotics for Vaginal and Urinary Health

Probiotics offer several benefits for the vaginal and urinary biome with research suggesting that probiotics can be beneficial for vaginal health throughout the changing hormonal patterns of a woman's life. Specific species like *Lactobacillus reuteri*, *Lactobacillus rhamnosus*, and *Lactobacillus crispatus* are found naturally residing in the vaginal microbiome, and with supplementation, have shown promise in restoring and maintaining the vaginal flora (Mei, 2022).

**1. Supporting Vaginal Microflora:** Probiotics may exert inhibitory effects on pathogenic bacteria through resource competition and the production of antimicrobial substances that deter harmful microbial populations. Research suggests that women who engage in daily probiotic supplementation may exhibit a reduced incidence of recurrent urinary tract infections (UTIs) and bacterial vaginosis (BV), conditions that can be exacerbated during various physiological stages in a woman's life (Mei, 2022).

**2. Maintaining pH Balance:** Probiotics contribute to the maintenance of vaginal pH at optimal levels through lactic acid production, which is essential for fostering an environment conducive to beneficial microbial flora. This regulation is particularly critical for postmenopausal women, as hormonal fluctuations can substantially affect vaginal pH. (Hechtman, 2019).

**3. Reducing Symptoms of UTIs:** *Lactobacillus* probiotics significantly contribute to female urethra health by maintaining a balanced microbiome and enhancing local immune defences. The urethra, being anatomically short and susceptible to infections, benefits from the presence of beneficial *Lactobacillus* species, which are also predominant in the vaginal microbiome (Mestrovic, 2020).

## Pharmacokinetics

### Absorption

The bioavailability of *Lactobacillus* probiotics commences in the gastrointestinal tract following oral administration, typically in a capsule formulation. Distinct from conventional pharmaceuticals,

probiotics are viable microorganisms, and their survival through the acidic milieu of the stomach is essential for their therapeutic efficacy. Upon reaching the intestines, *Lactobacillus* species may be absorbed into the systemic circulation, primarily via the intestinal epithelium.

Once in the intestinal lumen, probiotics can interact with the mucosal surfaces, promoting their adhesion to intestinal epithelial cells. This interaction may facilitate limited translocation across the intestinal barrier into the systemic circulation via transcellular or paracellular pathways. Certain *Lactobacillus* species have demonstrated the ability to traverse the epithelial barrier, where they may enter the bloodstream or lymphatic system (Valdes, 2018).

### Distribution

Upon entering systemic circulation, probiotics can be distributed to various anatomical sites, including the urogenital region. The exact mechanisms facilitating this distribution are not entirely understood, but it is hypothesised that the lymphatic system plays a significant role in directing immune responses and microbial populations to sites, including the vagina and urinary tract.

### Urinary Tract

Upon reaching the urinary tract, *Lactobacillus* probiotics exhibit specific distribution patterns influenced by factors such as urinary flow rates, bladder capacity, and the presence of mucosal surfaces. *Lactobacillus* adheres to the uroepithelium, a crucial step for colonisation and subsequent interaction with the local microbiome. This adherence is mediated by various surface proteins and exopolysaccharides, which enable the bacteria to establish a niche within the urinary environment.

The colonisation of *Lactobacillus* in the urinary tract is transient, with studies indicating that beneficial strains can persist for a limited duration, ranging from several days to weeks, depending on factors such as dosage, strain type, and individual host conditions (Chapman, 2014).

### Vagina

Once in the vaginal milieu, probiotics can adhere to the vaginal epithelium, effectively integrating into the local microbiota. This colonisation process is critical for exerting potential health benefits, such

as the maintenance of vaginal flora balance and inhibition of pathogenic microorganisms. The degree of colonisation and the overall impact of orally administered probiotics on vaginal health can vary depending on individual factors, including the specific strains of probiotics, host microbiome composition, and overall health status (Mei, 2022).

### Metabolism

The metabolic processes of *Lactobacillus* probiotics involve fermentation of dietary substrates, resulting in the production of short-chain fatty acids (SCFAs) and other metabolites. These metabolites contribute to a favourable environment by lowering the pH and inhibiting the growth of pathogenic organisms. Furthermore, *Lactobacillus* can metabolise various carbohydrates present in the urogenital environment, influencing the local microbiota composition (Plaza-Diaz, 2019).

### Excretion

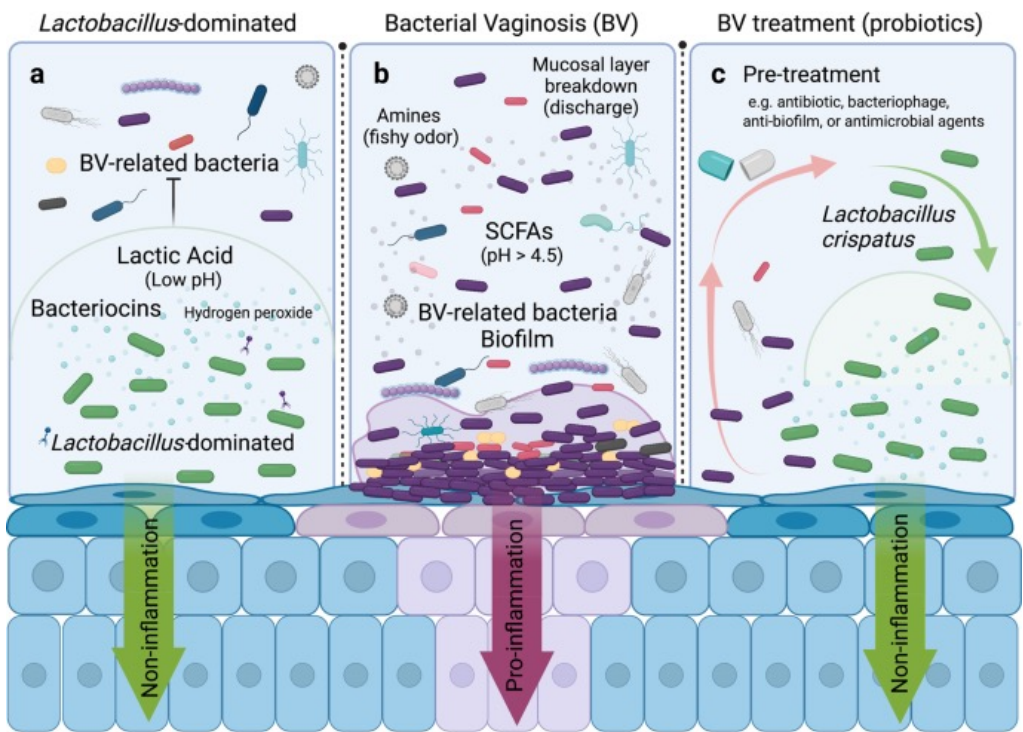
Excretion of *Lactobacillus* from the urinary tract occurs primarily through urination. Once the probiotics are no longer adhered to the uroepithelium or have exhausted their metabolic

activity, they are expelled with urine. The rate of excretion may vary based on urinary flow, bladder emptying frequency, and individual differences in metabolism and microbiome composition. Excretion from the vagina occurs primarily through natural physiological processes, including vaginal discharge. Probiotic strains may be expelled during normal epithelial turnover, sexual activity, or menstruation. The excretion of these probiotics can be beneficial, as it may help maintain microbial homeostasis and prevent the overgrowth of pathogenic organisms, thereby supporting vaginal health (Valdes, 2018).

## Mechanism of Action

### 1. Lactic Acid Production

One of the primary mechanisms by which *Lactobacillus* probiotics maintain vaginal and urinary health is through the production of lactic acid. All *Lactobacillus* species ferment carbohydrates, such as glycogen, to produce lactic acid, which lowers vaginal pH to approximately 3.8-4.5. This acidic environment is inhospitable to many pathogenic organisms, reducing their ability to thrive and cause infections (Plaza-Diaz, 2019).



Benefits of a lactobacillus - dominated BV vaginal microbiome environment. Source: Wu, 2022.

## 2. Competitive Exclusion

*Lactobacilli* species contribute to the concept of competitive exclusion, wherein beneficial bacteria inhibit the growth of harmful pathogens by occupying niches in the vaginal and urinary ecosystem. By adhering to the vaginal epithelium and the periurethral regions, *Lactobacillus* species prevent pathogenic bacteria from attaching to the same sites, thereby reducing their colonisation potential. This competitive advantage is crucial for maintaining healthy vaginal and urinary microbiomes (Plaza-Díaz, 2019).

## 3. Production of Antimicrobial Substances

*Lactobacilli* species produce various antimicrobial compounds, including hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>), bacteriocins, and biosurfactants.

- **Hydrogen Peroxide:** H<sub>2</sub>O<sub>2</sub> is a potent antimicrobial agent that can inhibit the growth of several uropathogens and vaginal pathogens. It is produced during the fermentation process and contributes to the overall antimicrobial environment of the vagina.
- **Bacteriocins:** These are ribosomally synthesised peptides that exhibit antibacterial activity against closely related species, including many uropathogens. *Lactobacillus*-derived bacteriocins disrupt bacterial cell membranes, leading to cell death.
- **Biosurfactants:** These molecules reduce surface tension and can disrupt the biofilm formation of pathogenic bacteria, enhancing their susceptibility to antimicrobial agents (Pendharkar, 2023).

## 4. Immune Modulation

*Lactobacillus* probiotics also play a crucial role in modulating the local immune response in the vaginal mucosa (Mazziotta, 2023). They interact with epithelial cells and immune cells through various pathways:

- **Pattern Recognition Receptors (PRRs):** *Lactobacilli* stimulate PRRs, such as Toll-like receptors (TLRs), present on epithelial and immune cells. This interaction enhances the production of pro-inflammatory cytokines and antimicrobial peptides, promoting an effective immune response against pathogens.

- **Secretory IgA (sIgA) Production:** *Lactobacillus* species can stimulate the production of sIgA, an immunoglobulin that plays a critical role in mucosal immunity. sIgA helps neutralise pathogens and prevents their adhesion to epithelial surfaces (Breedveld, 2022).
- **Cytokine Production:** *Lactobacilli* species can modulate the secretion of various cytokines, promoting a balanced immune response. This modulation helps maintain homeostasis and prevent excessive inflammation, which can lead to tissue damage and increased susceptibility to infections (Farr Zuend, 2023).

## 5. Restoration of Microbiome Balance

*Lactobacillus* probiotics are effective in restoring the balance of the vaginal microbiome, particularly after antibiotic use or during dysbiosis. They can help re-establish the dominance of beneficial *Lactobacillus* species over pathogenic bacteria (Lopez-Moreno, 2021).

- **Recolonisation:** Supplementing with *Lactobacillus* probiotics can help recolonise the vaginal microbiome with beneficial species, especially after disturbances caused by antibiotics or infection.
- **Reinforcement of *Lactobacillus* Dominance:** Regular intake of *Lactobacillus* probiotics may promote sustained colonisation, reinforcing the dominance of beneficial bacteria and reducing the likely recurrence of conditions such as bacterial vaginosis (BV) and yeast infections (Mei, 2022).

## 6. Influence on Glycogen Metabolism

Glycogen is a critical substrate in the vaginal environment, serving as a nutrient source for *Lactobacillus* species. Oestrogen promotes the accumulation of glycogen in vaginal epithelial cells, which *Lactobacillus* ferment to produce lactic acid. This interplay between oestrogen, glycogen metabolism, and *Lactobacillus* activity is vital for maintaining a healthy vaginal ecosystem.

### Clinical Implications

The use of *Lactobacillus* probiotics in clinical settings has shown promise in preventing and managing various vaginal health issues.

- **Bacterial Vaginosis (BV):** Studies indicate that *Lactobacillus* probiotics can be effective in restoring a healthy vaginal microbiome and reducing the recurrence of BV. Probiotic treatments may be particularly beneficial in women with a history of recurrent infections.
- **Vulvovaginal Candidiasis:** *Lactobacillus* probiotics have been shown to help prevent yeast infections by inhibiting *Candida* growth through competitive exclusion and the production of antimicrobial substances (Plaza-Díaz, 2019).

*Lactobacillus* probiotics are essential for maintaining vaginal health through their multifaceted mechanisms of action. By producing lactic acid, competing with pathogens, modulating the immune response, and restoring microbiome balance, these beneficial bacteria play a critical role in preventing infections and promoting overall vaginal health.

## Herbal Medicine for Vaginal and Urinary Health

*Actaea racemosa*, commonly known as Black cohosh, is a perennial herb traditionally used in Western Herbal Medicine, particularly for its potential benefits in women's health. Its active compounds, primarily triterpene glycosides and flavonoids, are believed to exert phytoestrogenic effects, which may modulate hormonal balance (Bone, 2013).

Research indicates that *A. racemosa* may alleviate menopausal symptoms such as hot flushes, mood swings, and vaginal dryness by influencing oestrogen receptor activity (Osmers, 2005). This modulation can help maintain vaginal tissue integrity and hydration, reducing the risk of atrophic vaginitis, a condition characterised by thinning vaginal walls and decreased lubrication due to oestrogen deficiency.

A hot flush is a vasomotor symptom commonly experienced during menopause, characterised by a sudden, transient episode of heat sensation, typically localised to the upper body.



It is attributed to fluctuations in oestrogen levels, which disrupt the hypothalamic thermoregulatory centre.

This dysregulation leads to peripheral vasodilation, increased blood flow to the skin, and activation of sweat glands, resulting in a rapid increase in skin temperature followed by subsequent sweating and potential chills. Hot flushes can vary in intensity and duration, impacting sleep quality and overall quality of life during the menopausal transition.

Additionally, the anti-inflammatory properties of *A. racemosa* may contribute to overall vaginal health by promoting a balanced vaginal microbiome and reducing the risk of infections (Schmid, 2009).

*Vaccinium macrocarpon*, commonly known as Cranberry, is a species renowned for its potential benefits in urinary health. Its bioactive compounds, particularly proanthocyanidins (PACs), have garnered significant attention due to their role in preventing urinary tract infections (UTIs). PACs inhibit the adhesion of uropathogenic *Escherichia coli* to the uroepithelial cells, thereby reducing the risk of infection (Blumenthal, 2003).



PACRAN® is a standardised, whole-fruit cranberry powder derived from *V. macrocarpon*, specifically formulated to retain the beneficial bioactive compounds that support urinary health. Rich in proanthocyanidins (PACs), PACRAN® is crucial in the prevention of UTIs.

Clinical studies suggest that regular supplementation of PACRAN® can reduce the incidence of recurrent UTIs, particularly in populations predisposed to these infections, such as women with a history of UTIs. The efficacy of PACRAN® lies in its ability to maintain urinary tract integrity by promoting a healthy mucosal barrier and modulating inflammatory responses.

In addition to PACs, PACRAN® contains a variety of antioxidants and phytochemicals that help mitigate oxidative stress, further supporting urinary tract health (Vostalova, 2014).



# Combining *Lactobacillus* Probiotics and Herbal Medicine

The combination of selected clinically trialled<sup>1</sup> *Lactobacillus* strains and either *A.racemosa* (Black Cohosh) or PACRAN® (Cranberry), in a single capsule presents a multifaceted approach to supporting vaginal health or urinary health.

In clinical studies, *L.rhamnosus GR-1*<sup>1</sup> and *L.reuteri RC-14*<sup>1</sup> when taken once daily in capsule form were shown to correlate with healthy vaginal flora in up to 90% of patients who had shown sub-optimal vaginal health according to the Nugent scoring. Additional benefit was measured within one month for patients who were diagnosed with BV, with vaginal balance returning to normal or intermediate scores (Reid, 2001).

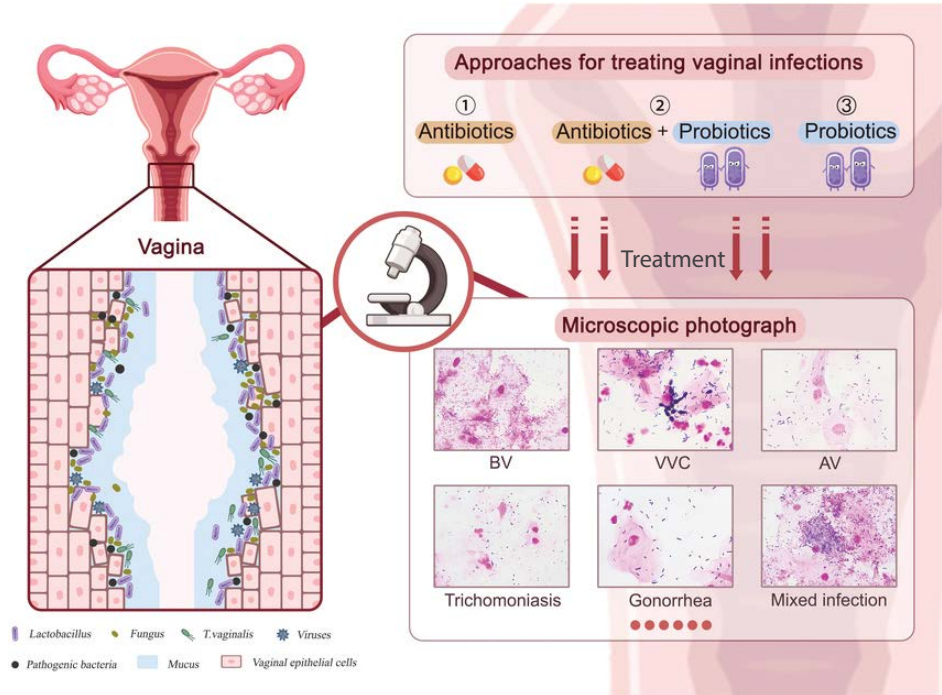
This unique strain pairing of *L.rhamnosus GR-1*<sup>1</sup> and *L.reuteri RC-14*<sup>1</sup>, with *L.crispatus Lbc*, support the distinct mechanisms of action of both components, addressing various aspects of vaginal microbiota imbalance and urinary tract dysregulation. Ideally, these combinations are prescribed with the following indications:

- Reduce Occurrence of Medically Diagnosed Cystitis:**  
The acidic environment promoted by clinically supported strains aids in maintaining optimal vaginal pH, reducing the risk of infections and

discomfort, while PACRAN®'s anti-inflammatory properties can alleviate irritation and support overall vaginal health.

- Support Healthy Vaginal Microflora:**  
*Lactobacillus* probiotics help maintain a healthy vaginal microbiome by producing lactic acid and inhibiting pathogenic bacteria, while PACRAN®, derived from cranberry, may prevent the adhesion of harmful microbes, further supporting a balanced microbial environment.
- Support for Microbial Balance:**  
*Lactobacillus* probiotics help maintain a healthy urinary microbiome by preventing the overgrowth of pathogenic bacteria, while *A. racemosa* may provide antioxidant effects, contributing to an overall balanced urinary environment.
- Reduce Symptoms of Menopause:**  
*A. racemosa* is known for alleviating symptoms associated with hormonal fluctuations, such as hot flushes experienced during menopause.

In summary, these three probiotic combinations present a holistic strategy for supporting vaginal and urinary tract health. By synergistically addressing both microbial balance, hormonal regulation, and urinary tract health these formulations have the potential to maintain overall vaginal health, reduce the incidence of infections in the urinary tract, and allow women to lead healthier, happier lives.



A typical representation of the vaginal mucosal wall with examples of pathogens encountered. Source: Liu, 2023.

# Co-Prescribing Probiotics with Antibiotics

Co-prescribing probiotics alongside antibiotics has garnered significant attention in clinical practice due to the potential to mitigate antibiotic-associated adverse effects, particularly gastrointestinal disturbances and dysbiosis. Antibiotics, while effective in eradicating pathogenic bacteria, indiscriminately affect both harmful and beneficial microbial populations within the gut, often leading to conditions such as antibiotic-associated diarrhoea (AAD) and *Clostridium difficile* infection (Chen, 2023).

Probiotics, which are live microorganisms that confer health benefits when administered in adequate amounts, can serve as a prophylactic measure against these complications. Several studies have demonstrated that the concomitant use of probiotics during antibiotic therapy can reduce the incidence of AAD, primarily through the restoration of gut microbiota balance and enhancement of mucosal immunity.

Safety considerations surrounding the co-administration of probiotics and antibiotics are paramount. Generally, probiotics are recognised as safe, with a low incidence of adverse effects in healthy populations (Hempel, 2012).

# Dietary Health and Self Care Recommendations

Self-care practices are essential for maintaining vaginal and bladder health, particularly for preventing urinary tract infections (UTIs). The female anatomy predisposes individuals to UTIs due to the shorter length of the urethra and its proximity to the vaginal and rectal areas. Implementing effective self-care strategies can significantly mitigate this risk.

Proper hygiene is crucial. Women should cleanse the anal area with mild, unscented soap and water, ensuring that they wipe from front to back to prevent the transfer of bacteria from the rectum to the urethra. The vaginal area should only be flushed with plain water; no perfumed soaps are necessary and may interfere with the natural flora of this area. Additionally, wearing breathable cotton underwear

can help maintain moisture control and reduce bacterial growth. Hydration plays a vital role in urinary health. Drinking adequate water helps dilute urine, promoting frequent urination, which flushes out potential pathogens. Incorporating cranberry products, known for their potential to inhibit bacterial adhesion to the urinary tract, may provide additional protective benefits.

Post-coital urination is another effective strategy. Voiding after sexual intercourse can help expel any bacteria that may have been introduced during intimacy. Furthermore, avoiding irritants such as douches, scented hygiene products, and certain contraceptives can help preserve the natural flora of the vagina, supporting overall urogenital health (Hectman, 2019).

Dietary choices have a significant impact on our overall health and impacts the urogenital and vaginal microbiome health:

**Hydration:** Aim for at least 8 glasses of water daily to help dilute urine and facilitate regular urination, reducing the risk of infections.

**Yoghurt and Fermented Foods:** Incorporate probiotic-rich foods like yoghurt, kefir, and sauerkraut to promote a healthy vaginal microbiome.

**Whole Grains and Fruits:** Consume plenty of fibre from whole grains, fruits, and vegetables to support digestive health and reduce the risk of constipation, which can affect bladder function.

**Healthy Fats:** Include sources of omega-3s, such as fatty fish (salmon, mackerel), flaxseeds, and walnuts, which may help reduce inflammation.

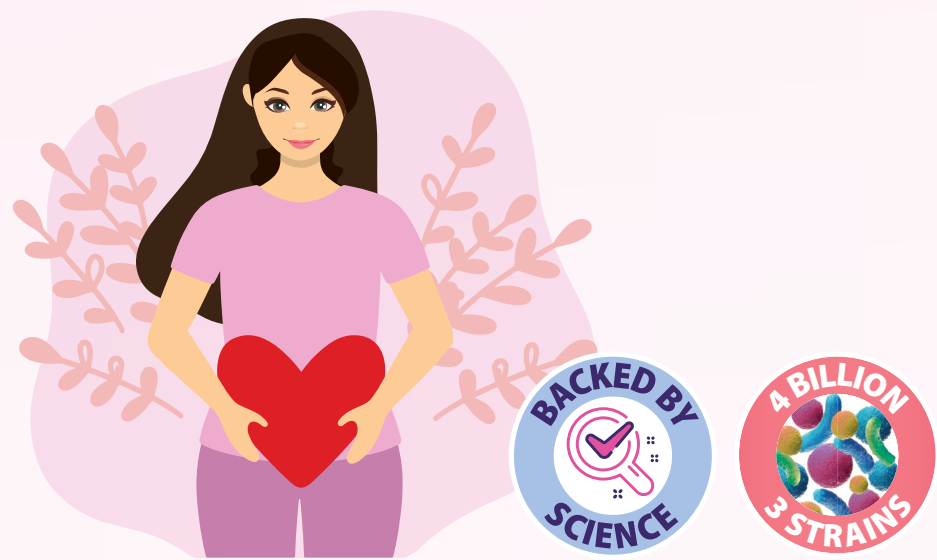
**Limit Irritants:** Reduce consumption of caffeine and alcohol, as they can irritate the bladder and potentially exacerbate urinary urgency.

**Nutrient-Rich Foods:** Focus on a balanced diet rich in vitamins and minerals, particularly vitamin C, which can help acidify urine and deter bacterial growth.

**Avoid Sugar and Processed Foods:** High sugar intake can promote yeast overgrowth, leading to infections. Opt for whole, unprocessed foods whenever possible (Hectman, 2019).

<sup>1</sup>G. Reid et al. / FEMS Immunology and Medical Microbiology 35 (2003) 131-134

# Introducing Caruso's New Vaginal Health Probiotics



## Vaginal Care Probiotic

### Health Indications:

- Maintains vaginal healthy microflora
- Supports vaginal health
- Helps support healthy vaginal pH

### Formulation

#### Each hard capsule contains:

*Lactobacillus crispatus* (LBV 88™) ..... 1 Billion CFU  
*Lactobacillus reuteri* (RC-14™)<sup>1</sup> ..... 1.5 Billion CFU  
*Lactobacillus rhamnosus* (GR-1™)<sup>1</sup> ..... 1.5 Billion CFU

CFU=Colony Forming Units, <sup>1</sup>Clinically trialed strains GR-1, RC-14, and LBV 88 are trademarks of Chr. Hansen A/S, part of the Novonesis Group

### Directions of Use:

Adults: Take 1 capsule daily, with food, or as advised by your health professional.

### Warnings:

- Always read the label and follow the directions for use
- If symptoms persist, talk to your health professional
- Contains sulfites
- Not recommended for use by pregnant or lactating women
- If you are taking any medications or have any existing health conditions, always talk to your health professional before use
- Take at least two hours away from pharmaceutical medications



Product Code:PROVCARE

## Urinary Health Probiotic

### Health Indications:

- Helps reduce the occurrence of medically diagnosed cystitis
- Contains cranberry, traditionally used in Western Herbal Medicine to help relieve symptoms of medically diagnosed cystitis
- Helps maintain healthy vaginal pH

### Formulation

#### Each hard capsule contains:

*Lactobacillus crispatus* (LBV 88™) ..... 500 Million CFU  
*Lactobacillus reuteri* (RC-14™)<sup>1</sup> ..... 750 Million CFU  
*Lactobacillus rhamnosus* (GR-1™)<sup>1</sup> ..... 750 Million CFU  
*Vaccinium macrocarpon* (Cranberry - PACRAN®)  
dry fruit powder,  
From fresh fruit 12.5g

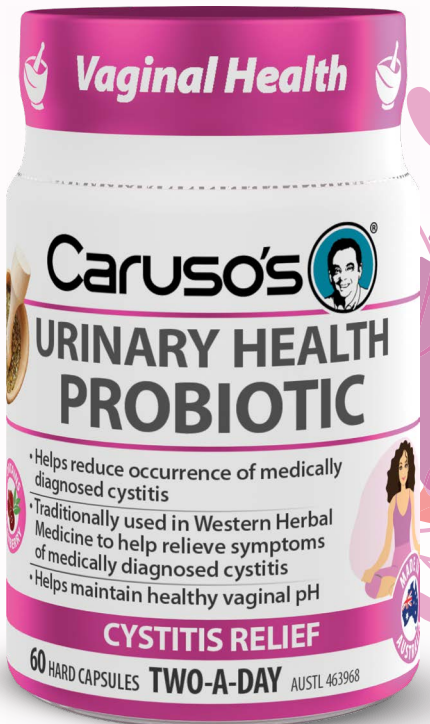
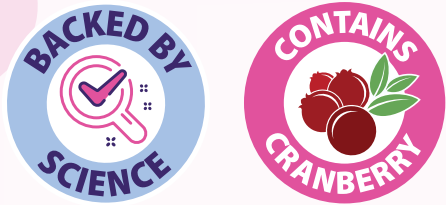
CFU=Colony Forming Units, <sup>1</sup>Clinically trialed strains GR-1, RC-14, and LBV 88 are trademarks of Chr. Hansen A/S, part of the Novonesis Group

### Directions of Use:

Adults: Take 1 capsule 2 times daily with food, or as advised by your health professional.

### Warnings:

- Always read the label and follow the directions for use
- If symptoms persist, talk to your health professional
- Contains sulfites
- If pain or irritation persists for more than 48 hours, consult your doctor. The presence of blood in the urine warrants immediate medical attention
- If you are taking any medications or have any existing health conditions, always talk to your health professional before use
- Not recommended for use by pregnant or lactating women
- Take at least two hours away from pharmaceutical medications



Product Code:PROVURI

<sup>1</sup>G. Reid et al. / FEMS Immunology and Medical Microbiology 35 (2003) 131-134

<sup>1</sup>G. Reid et al. / FEMS Immunology and Medical Microbiology 35 (2003) 131-134





# Menopause Probiotic

## Health Indications:

- Relieves symptoms of menopause
- Relieves hot flushes associated with menopause
- Supports vaginal healthy microflora
- Helps maintain healthy vaginal pH

## Formulation

### Each hard capsule contains:

*Lactobacillus crispatus* (LBV 88™) ..... 1 Billion CFU  
*Lactobacillus reuteri* (RC-14™)<sup>1</sup> ..... 1.5 Billion CFU  
*Lactobacillus rhamnosus* (GR-1™)<sup>1</sup> ..... 1.5 Billion CFU  
*Actaea racemosa* (Black Cohosh) ext. dry conc. 80mg  
From min. dry root and rhizome ..... 400mg  
Std. to triterpene glycosides (27-desoxyactein)2mg

CFU=Colony Forming Units, <sup>1</sup>Clinically trialled strains  
GR-1, RC-14, and LBV 88 are trademarks of Chr. Hansen A/S,  
part of the Novonesis Group

## Directions of Use:

Adults: Take 1 capsule daily with food,  
or as advised by your health professional.

## Warnings:

- Always read the label and follow the directions for use
- If symptoms persist, talk to your health professional
- Contains sulfites
- Warning: In very rare cases, black cohosh has been associated with liver failure. If you are experiencing yellowing of the skin or whites of the eyes, dark urine, nausea, vomiting, unusual tiredness, weakness, stomach or abdominal pain, and/or loss of appetite, you should stop using this product and see your doctor.
- Not recommended for use by pregnant or lactating women.
- If you are taking any medications or have any existing health conditions, always talk to your health professional before use.
- Take at least two hours away from pharmaceutical medications



# Study Summary

## Fromentin 2014

### Randomised, Double-Blind, Placebo-Controlled Clinical Trial to Investigate the Efficacy of Cranberry Fruit Powder (PACRAN®) in the Prevention of Recurrent Urinary Tract Infection in Women

Based on the Traditional Western Herbal Medicine use of Cranberry (*V. macrocarpon*) for the support and prevention of recurrent urinary tract infection (UTI), PACRAN® was used in a six month trial of 176 sexually active women who reported at least two symptomatic UTI occurrences in the previous 12 months.

Women were placed in either the placebo PACRAN® group and monitored for 6 months. At the conclusion of the trial, significant improvement was observed in the women within the PACRAN® group regarding UTIs. The percentage of women in the PACRAN® group experiencing a UTI was 10.8% versus the placebo group which was 25.8%. Additionally, women in the PACRAN® group had a longer duration until their first UTI compared to the placebo group (p=0.04). The average number of UTIs per subject was significantly reduced in the PACRAN® group compared to the placebo group (p=0.03).

The findings showed that a daily dose of 500 mg PACRAN® was effective in reducing the risk of symptomatic UTIs in women with recurrent UTIs.

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