

Bio.Me[™] Femme V

Clinically researched probiotics for the health of the vaginal microbiome

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Bio.MeTM Femme V is a multi-strain probiotic formula, containing specific strains that have been clinically researched for their ability to colonise the vaginal microbiome and reduce bacterial vaginosis and its re-occurrence⁽¹⁾. All strains have gone through in-vitro, ex-vivo and in-vivo testing for efficacy, mode of action and safety parameters.

Bio.Me™ Femme V Mechanisms of Action

- 1. Proven colonisation from oral ingestion to vaginal microbiome with strains that have been shown to reduce bacterial vaginosis⁽¹⁾.
- 2. Strains with anti-microbial activity in the vagina by outcompeting pathogens and reducing vaginal pH, which creates an unfavourable environment for pathogens and opportunistic pathogens, or pathobionts⁽²⁾.
- 3. Improving immunity via induction of anti-inflammatory interleukins $^{(1,3)}$.

Vaginal Microbiome Health

A vaginal microbiota that is dominant in Lactobacillus species has been positively correlated with vaginal and reproductive health, and a decreased tendency to bacterial, fungal and viral vaginal infections⁽⁴⁾. A healthy vaginal microbiome is also correlated with a lower tendency of urinary tract infections (UTI), bacterial vaginosis (BV) and pelvic inflammatory disorder (PID)⁽⁶⁾.

Of all the Lactobacillus species in the vagina, *Lactobacillus crispatus* is the biggest lactic acid producer. Lactic acid is crucial in maintaining homeostasis within the vaginal ecosystem, largely by maintaining an acidic vaginal pH below 4.5. This has been shown to reduce the susceptibility to overgrowth of diverse species, which are implicated in a range of vaginal infections. These include BV, UTIs, and thrush, such as *Gardnerella vaginalis*, *Atopobium vaginae*, *Candida albicans*, *Escherichia coli*, amongst others^(2,6). *Lactobacillus crispatus* is theorised to bring stability to the normal microflora of the vagina, and is highly dominant in pregnancy, in which it is thought to reduce infections that can cause pre-term births⁽⁷⁾.

Nutritional Information	Per Dose
Actives	(1 capsule)
SynBalance®	3 billion CFU
SynBalance® LP (L. plantarum – DSM 24937), SynBalance® BL (B. lactis – LMG P-29510), SynBalance® LRh (L. rhamnosus – LMG P-29513), SynBalance® LG (L. gasseri – LMG P-29638), SynBalance® LCr (L. crispatus – LMG P-31003)	

Other Ingredients: Maltodextrin, Corn starch, Microcrystalline cellulose, Capsule Shell: Hydroxypropylmethylcellulose.

No need to refrigerate, suitable for vegetarians Directions:

Take 1 capsule per day.

Do not exceed the recommended dose, unless advised by your healthcare professional.

Even though Bifidobacterium is not found in high amounts in the vagina, it has been selected to be used in this formulation for its ability to produce B vitamins, which are a mandatory substrate for the growth of beneficial bacteria. Its activity may have a synergistic effect on the colonisation and proliferation of other beneficial species in the gut first, and then in the vaginal tract.

Research Studies

In a randomised, double-blind, three-arm parallel pilot study, the stains in the Bio.Me[™] Femme V were evaluated in the vaginas of 60 healthy pre-menopausal women aged between 18 and 50. Vaginal swabs were collected and analysed by qPCR the day before the first intake of probiotics and after 7, 14 and 21 days from the first intake. qPCR confirmed the strains in Bio.Me[™] Femme V were present – to a statically significant degree – in the vagina on day 21, which was 7 days post wash-out period. At the same time, the antimicrobial activity of the probiotic formulation was confirmed by assays in-vitro against *Escherichia coli* and *Candida albicans*⁽¹⁾.



A human clinical trial was run on the viability of probiotics to reduce the recurrence of BV post-antibiotic treatment. The trial involved 50 women in the treatment group, and 25 controls. All women were diagnosed with BV and treated with metronidazole. The treatment group received a blend of *L. plantarum* – DSM 24937, *B. lactis* – LMG P-29510, *L. rhamnosus* – LMG P-29513 and *L. gasseri* – LMG P-29638, whereas the control had no further interventions.

Subjects in the treatment group were given 1 capsule (3×109 CFU probiotic mix) orally for 14 days post-metronidazole treatment. This was then followed by a 4-month treatment period of the same dose of probiotic daily for 7 days post-menstruation each month. After one-year follow-up, the treatment group had a 16% recurrence rate of BV, compared to 40% in the control group. This recurrence rate is statistically significant (p<0.001) when compared to common reported recurrence rates in the medical literature (40-60%)^(a).

In an in-vitro investigation of the bacteria in Bio.Me[™] Femme V, the strains showed anti-microbial activity against *Enterococcus* faecalis, Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus and Candida albicans (3)

Dosage

1 capsule a day orally, as required.

Or

1 capsule inserted vaginally for 7 days after menstrual cycle, repeated as necessary.

References

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