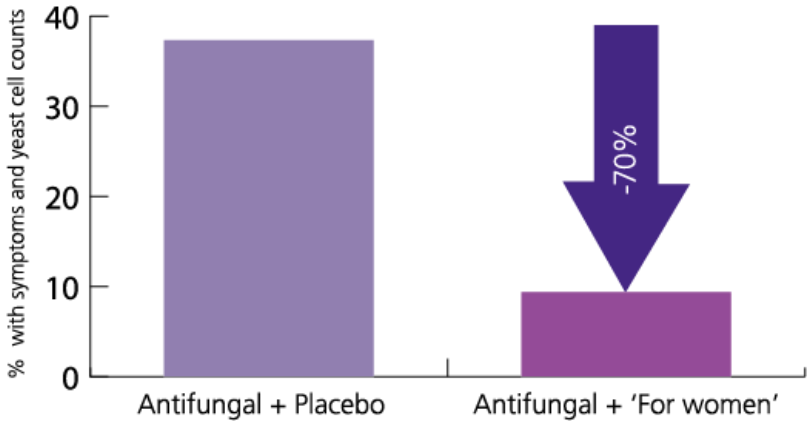
# OptiBac For Women - Scientific Research

'For women' contains the strains *Lactobacillus rhamnosus* GR-1® and *Lactobacillus reuteri* RC-14® and is one of the most researched supplements in the whole OptiBac Probiotics range. This live cultures product has over 30 years of scientific evidence, with 26 published clinical trials, involving over 2,500 women. OptiBac Probiotics 'For women' has been used in clinical trials in women with thrush, cystitis and Bacterial Vaginosis (BV). Healthcare professionals can read about the clinical trials on this page, or for more general information, you may wish to read the FAQ, Which probiotics are best for women?

### Clinical research on 'For women' in those with thrush

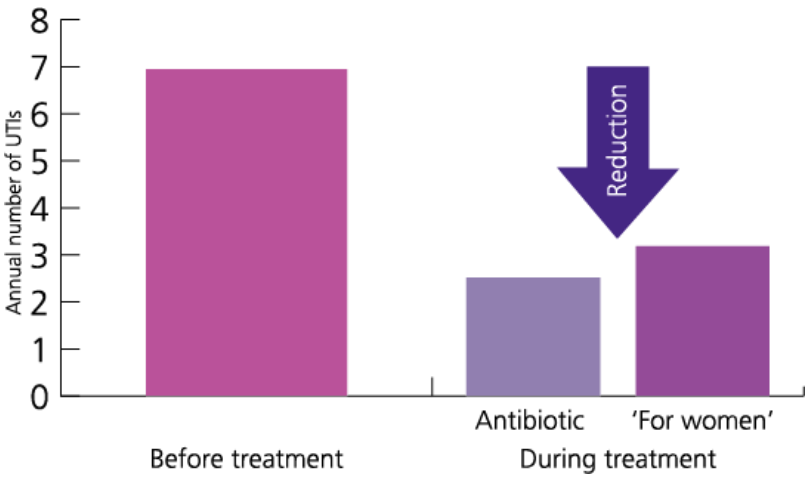
In one trial, participants with thrush took a single antifungal capsule with either For women (2 capsules daily) or placebo for 4 weeks. At follow-up those who had been taking 'For women' had significantly fewer symptoms and yeast cell counts than the placebo group.




- Martinez et al. (2009) Improved treatment of vulvovaginal candidiasis with fluconazole plus probiotic *Lactobacillus rhamnosus* GR-1 and *Lactobacillus reuteri* RC-14. Lett Appl Microbiol; 48, 3: 269-74.
- Anukam et al. (2009) Oral use of probiotics as an adjunctive therapy to fluconazole in the treatment of yeast vaginitis: A study of Nigerian women in an outdoor clinic. Microb Ecol Health Dis; 21, 2: 72-77.

### Clinical research on 'For women' in those with cystitis

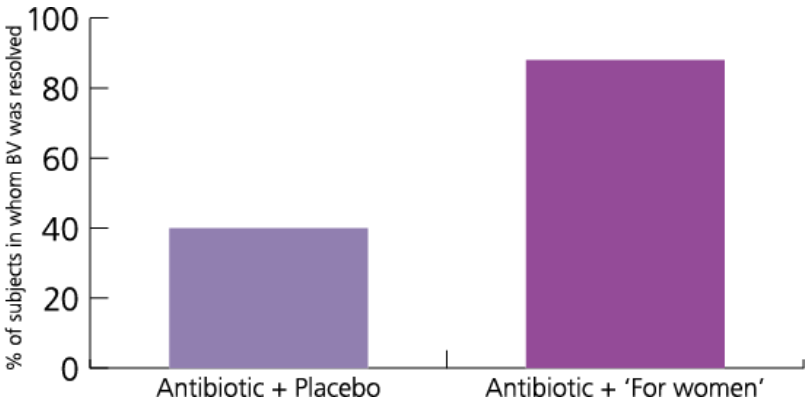
In one trial, 252 women who suffered with recurring UTIs took 'For women' or antibiotics (trimethoprim-sulfamethoxazole) for one year. After 12 months the number of UTIs had more than halved in both groups, with 'For women' being almost as effective as antibiotics. (An impressive result for a natural remedy). Furthermore, after 1 month in the antibiotic group, 90% antibiotic resistance had been developed to the prescribed medication. This of course was not an issue in the probiotic group, where antibiotic resistance (likely from previous medication) was shown to decrease.




- Beerepoot et al. (2012) Lactobacilli vs antibiotics to prevent urinary tract infections: a randomized, double-blind, noninferiority trial in postmenopausal women. Arch Intern Med; 172, 9: 704-12.
- Reid et al. (1995) Instillation of *Lactobacillus* and stimulation of indigenous organisms to prevent recurrence of urinary tract infections. Microecol Ther; 23: 32-45. Note: This trial was conducted using *L. rhamnosus* GR-1® only.
- Reid et al. (1988) Intravaginal instillation of lactobacilli for prevention of recurrent urinary tract infections. Can J Microbiol; 34: 339-343. Note: This trial was conducted using *L. rhamnosus* GR-1® only.

## Clinical research on 'For women' in those with Bacterial Vaginosis (BV)

In one trial, 125 women with BV took antibiotics for 1 week, alongside For women (2 caps daily) or placebo during this week, as well as for 3 weeks afterwards. BV cleared up in just 40% of those who took antibiotics alone, whereas BV was resolved in 88% of those who took 'For women' with the antibiotics. OptiBac Probiotics 'For women' doubled the efficacy of the treatment.




- Anukam et al. (2006) Augmentation of antimicrobial metronidazole therapy of bacterial vaginosis with oral probiotic *Lactobacillus rhamnosus* GR-1 and *Lactobacillus reuteri* RC-14: randomized, double-blind, placebo controlled trial. Microbes Infect; 8, 6: 1450-4.
- Vujic et al. (2013) Efficacy of orally applied probiotic capsules for bacterial vaginosis and other vaginal infections: a double-blind, randomized, placebo-controlled study. Eur J Obstet Gynecol Reprod Biol; 168, 1: 75-9.

- Krauss-Silva et al. (2011) A randomised controlled trial of probiotics for the prevention of spontaneous preterm delivery associated with bacterial vaginosis: preliminary results. Trials; 8, 12: 239.
- Perisić et al. (2011) The influence of probiotics on the cervical malignancy diagnostics quality. Vojnosanit Pregl; 68, 11: 956-60.
- Hummelen et al. (2010) *Lactobacillus rhamnosus* GR-1 and *L. reuteri* RC-14 to prevent or cure bacterial vaginosis among women with HIV. Int J Gynaecol Obstet; 111, 3: 245-8.
- Thulkar et al. (2010) Probiotic and metronidazole treatment for recurrent bacterial vaginosis. Int J Gynaecol Obstet; 108, 3: 251-2.
- Martinez et al. (2009) Improved cure of bacterial vaginosis with single dose of tinidazole (2 g), *Lactobacillus rhamnosus* GR-1, and *Lactobacillus reuteri* RC-14: a randomized, double-blind, placebo-controlled trial. Can J Microbiol; 55, 2: 133-8.
- Kamala et al. (2009) Benefits of probiotic treatment in cases of bad obstetric history (BOH) and for prevention of post IVF pregnancy complications. J Obstet Gynecol India; 59, 4: 336-339.
- Petricevic et al. (2008) Randomized, double-blind, placebo-controlled study of oral lactobacilli to improve the vaginal flora of postmenopausal women. Eur J Obstet Gynecol Reprod Biol; 141, 1: 54-7.
- Cianci et al. (2008) [Efficacy of *Lactobacillus rhamnosus* GR-1 and of *Lactobacillus reuteri* RC-14 in the treatment and prevention of vaginosis and bacterial vaginitis relapses]. Minerva Ginecol; 60, 5: 369-76. [Article in Italian]
- Anukam et al. (2006) Clinical study comparing probiotic *Lactobacillus* GR-1 and RC-14 with metronidazole vaginal gel to treat symptomatic bacterial vaginosis. Microbes Infect; 8, 12-13: 2772-6.
- Reid et al. (2004) Nucleic acid-based diagnosis of bacterial vaginosis and improved management using probiotic lactobacilli. J Med Food; 7, 2: 223-8.
- Reid et al. (2003) Oral use of *Lactobacillus rhamnosus* GR-1 and *L. fermentum* RC-14 significantly alters vaginal flora: randomized, placebo-controlled trial in 64 healthy women. FEMS Immunol Med Microbiol; 35, 2: 131-4. Note: *L. fermentum* RC-14 has since been re-classified as *L. reuteri* RC-14.
- Reid et al. (2003) Effect of lactobacilli oral supplement on the vaginal microflora of antibiotic treated patients: Randomized, placebo-controlled study. Nutraceut Food; 8: 145-8.
- Burton et al. (2003) Improved Understanding of the Bacterial Vaginal Microbiota of Women before and after Probiotic Instillation. Appl Environ Microbiol; 69, 1: 97–101.
- Reid et al. (2001) Oral probiotics can resolve urogenital infections. FEMS Immunol Med Microbiol; 30, 1: 49-52.
- Reid et al. (2001) Probiotic Lactobacillus dose required to restore and maintain a normal vaginal flora. FEMS Immunol Med Microbiol; 32, 1: 37-41.


## Clinical research showing survival of 'For women' strains

The following trials demonstrate that both strains in ‘For women’ have been found in vaginal swabs after oral administration.


- Morelli et al. (2004) Utilization of the intestinal tract as a delivery system for urogenital probiotics. J Clin Gastroenterol; 38, 6 Suppl: S107-10.
- Gardiner et al. (2002) Oral administration of the probiotic combination *Lactobacillus rhamnosus* GR-1 and *L. fermentum* RC-14 for human intestinal applications. Int Dairy J; 12: 191-196. Note: *L. fermentum* RC-14 has since been re-classified as *L. reuteri* RC-14.
- Gardiner et al. (2002) Persistence of *Lactobacillus fermentum* RC-14 and *Lactobacillus rhamnosus* GR-1 but not *L. rhamnosus* GG in the human vagina as demonstrated by randomly amplified polymorphic DNA. Clin Diagn Lab Immunol; 9, 1: 92-6. Note: *L. fermentum* RC-14 has since been re-classified as *L. reuteri* RC-14.
- Cadieux et al. (2002) Lactobacillus Strains and Vaginal Ecology. JAMA; 287, 15: 1940-1941.

## 'For women' in clinical trials for regulating the immune system

- de los Angeles Pineda et al. (2011) A randomized, double-blinded, placebo-controlled pilot study of probiotics in active rheumatoid arthritis. Med Sci Monit; 17, 6: CR347–CR354.
- Hummelen et al. (2011) Effect of 25 weeks probiotic supplementation on immune function of HIV patients. Gut microbes; 2, 2: 80-85.
- Hummelen et al. (2011) Effect of Micronutrient and Probiotic Fortified Yoghurt on Immune-Function of Anti-Retroviral Therapy Naive HIV Patients. Nutrients; 10: 897-909. Note: This trial was conducted using *L. rhamnosus* GR-1® only.
- Irvine et al. (2010) Probiotic Yoghurt consumption is associated with an increase of CD4 count among people living with HIV/ AIDS. J Clin Gastroenterol; 44: 201. Note: This trial was conducted using *L. rhamnosus* GR-1® only.
- Koyama et al. (2010) Development and pilot evaluation of a novel probiotic mixture for the management of seasonal allergic rhinitis. Can J Microbiol; 56: 730-738. Note: This trial was conducted using *L. rhamnosus* GR-1® only.

## 'For women' in clinical trials for immunity and other health conditions

- Bisanz et al. (2014) Randomized open-label pilot study of the influence of probiotics and the gut microbiome on toxic metal levels in Tanzanian pregnant women and school children. mBio 5(5): doi:10.1128/mBio.01580-14. Note: This trial was conducted using *L. rhamnosus* GR-1® only.