



Q/ Can probiotics safely prevent recurrent vaginitis?

EVIDENCE-BASED ANSWER

A | YES, using vaginal suppositories or eating yogurt with *Lactobacillus* may reduce recurrences of bacterial vaginosis (BV) (strength of recommendation [SOR]: **B**, randomized controlled trials [RCTs] with conflicting results).

Neither suppositories nor yogurt con-

taining *Lactobacillus* are likely to prevent recurrences of vulvovaginal candidiasis (VVC) (SOR: **B**, RCTs with conflicting results).

Probiotic suppositories and yogurt don't appear to have significant adverse effects (SOR: **A**, RCTs).

Evidence summary

A double-blind RCT found that probiotic vaginal suppositories reduce the incidence of recurrent BV. Investigators randomized 120 Chinese women, 18 to 55 years of age with a history of 2 or more episodes of BV in the previous year, to use suppositories containing either probiotics (*Lactobacillus rhamnosus*, *L acidophilus*, and *Streptococcus thermophilus*, total of 8×10^9 colony-forming units [cfu]) or placebo.¹ All the women used suppositories daily for a week, stopped for a week, and then used them for another week.

Fewer women who used probiotic suppositories had recurrences of BV on examination during the following 2 months than women who used placebo (16% vs 45%; $P < .001$; number needed to treat [NNT]=3.4), and fewer reported recurrences in telephone interviews 2 to 11 months after treatment (11% vs 28%; $P < .05$; NNT=5.8). Interviewers recorded two-thirds fewer complaints of discharge and malodor among women who used probiotics than among women who used placebo ($P < .05$ for both comparisons).

But another RCT finds no effect on recurrent BV or VVC

Another RCT treated 95 women 18 to 45 years of age with clindamycin ovules (for BV) or

clotrimazole suppositories (for VVC) and, after 5 days, randomized them to use probiotic suppositories (*Lactobacillus* species, 10^8 - 10^{10} cfu) or placebo for 5 more days.²

Probiotic suppositories after treatment didn't reduce clinician-diagnosed recurrences of either BV or VVC compared with placebo (7% vs 17% after 2-3 days; 22% vs 29% after the first menstrual cycle; $P =$ not significant for both). Probiotics did reduce self-reported malodorous discharge, however ($P = .03$). Probiotics didn't produce adverse effects.

Probiotic yogurt decreases recurrent BV but not VVC in an RCT

An RCT that randomized 46 women, 20 to 39 years of age with a history of 4 or more episodes of BV or VVC in the previous year, to eat *L acidophilus*-enriched yogurt (10^8 cfu) or pasteurized yogurt daily for 2 months found that consuming probiotic-containing yogurt reduced the incidence of recurrent BV but not VVC.³

Women who ate *L acidophilus* yogurt had fewer episodes of clinician-diagnosed BV at 1 month than women who ate pasteurized yogurt (24% vs 53%; $P < .05$) and also at 2 months (4% vs 36%; $P < .05$). However, they didn't have significantly fewer episodes of VVC (43% vs 37% at 1 month, 21% vs 29% at 2 months;

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P=not significant for both). Investigators reported no adverse effects.

Small, flawed trial finds fewer episodes of VVC with yogurt

An unblinded crossover trial found that daily consumption of probiotic yogurt reduced VVC recurrences in women with a history of the infection. Investigators randomized 33 women 24 to 50 years of age to eat either 8 ounces a day of yogurt (with *L acidophilus*, 10⁸ cfu) or a yogurt-free diet.⁴ After 6 months, the groups switched. Investigators saw all patients monthly.

Women who ate yogurt had fewer episodes of VVC than women who didn't (0.4 vs 2.5 over 6 months; *P*<.001) and reported no adverse effects. The study was flawed by small

size and high attrition rates (only 13 women completed the trial).

Recommendations

The World Health Organization says some clinical evidence suggests that oral and vaginal administration of lactobacilli can eradicate asymptomatic and symptomatic BV. Supporting evidence for prevention of recurrent BV or VVC by probiotics is limited.⁵

A literature review by the Natural Standard Research Collaboration states that insufficient evidence exists to recommend probiotics for treating or preventing bacterial vaginosis and that preventing or treating vaginal yeast infections with probiotics hasn't been adequately studied.⁶

JFP

➤ Probiotic vaginal suppositories or yogurt may decrease recurrences of bacterial vaginosis.

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