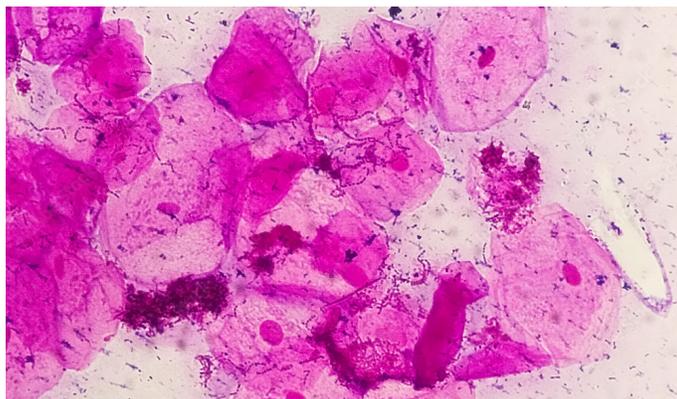


Vaginal Microbial Balance Protocol

Clinical Protocol to Support a Healthy Vaginal Microbial Environment*



The Pathophysiology of Vaginal Dysbiosis

The female reproductive tract houses approximately 9% of the body's total microbial environment and plays a crucial role in protecting the host against overgrowth or colonization of bacterial, fungal, or viral pathogens.¹ A healthy vaginal microbial environment is characterized by the dominance of the *Lactobacillus spp.* (comprising >70% of the relative abundance) and a vaginal pH ranging from 3.8 to 4.5.²⁻⁴ Disruptions in vaginal microbial balance can lead to vulvovaginal infections and gynecological symptoms.^{1,5} Two common conditions associated with microbial imbalances are bacterial vaginosis (BV) and vulvovaginal candidiasis (VVC).^{6,7}

BV is characterized as a vaginal dysbiosis involving a reduced amount of lactobacilli and an increase in anaerobic bacteria.⁶

It is the most common vaginal disease in reproductive-aged women.⁶ One risk factor for BV is a lack of hydrogen peroxide-producing lactobacilli in the vaginal microbiome.^{6,8} In turn, the incidence of BV is associated with a greater risk of urogenital infections, pregnancy complications, infertility, and pelvic inflammatory disease.^{9,10}

VVC is an inflammatory condition in the vagina/vulva caused by a fungal overgrowth of *Candida*, most commonly *Candida albicans*.⁷ The *Candida spp.* can superficially penetrate the mucosal lining of the vagina, triggering an inflammatory response.⁷ Following BV, VVC is the second most common cause of vaginal infections, with 70% to 75% of women reporting having VVC at some point in their lifetime.^{1,11}

This clinical protocol is designed to promote healthy vaginal microbial balance through evidence-based lifestyle, dietary, and nutrient interventions.*

Diagnostic Biomarkers and Clinical Indicators of Vaginal Dysbiosis

- Conduct a pelvic examination and obtain clinical history.⁶ To accurately diagnose BV and VVC, utilize wet mount testing, whiff testing, and pH testing.^{6,7}
- Evaluate symptomology, including vaginal malodor, discharge, itching, burning, pain, redness, irritation, dyspareunia, swelling, and dysuria.^{4,6} Women can be asymptomatic.^{1,6}
- Exclude other potential causes of vaginal discomfort, discharge, pain, or infection.⁶ Assess the presence of sexually transmitted infections (STIs) as women diagnosed with BV are at an increased risk of acquiring STIs.^{4,6}
- Consider pregnancy history and status. BV is associated with pregnancy complications and infertility.⁶ A history of pregnancy is a known risk factor for BV and VVC.^{4,11}

Therapeutic Diet and Nutritional Considerations

- Advise avoiding inflammatory and high glycemic-index foods, such as sugar, refined grains, sweetened drinks, and fried foods.¹² Encourage the daily intake of fiber-rich foods. Dietary fiber intake may help to promote a healthy vaginal microbiome.¹³
- Recommend probiotic-rich foods, such as plain yogurt, kefir, miso, sauerkraut, and kimchi. Lactobacilli and *Saccharomyces boulardii* may help maintain the vaginal microenvironment by helping to support normal pH and healthy inflammatory responses.^{1,2,9}
- Encourage regular consumption of garlic. Garlic has demonstrated anti-microbial, antioxidant, and anti-inflammatory properties.^{14,15}

Lifestyle Interventions

- Advise patients to avoid vaginal douching, also known as vaginal cleansing, as it is associated with BV.^{4,6}
- Encourage patients to quit smoking.^{6,16} Smoking may negatively alter microbial environments and normal immune responses.¹⁶
- Recommend safe sexual health practices, such as condom use.^{4,6} While BV is not considered an STI, it can be influenced by sexual activity.^{4,6}
- Provide counsel on stress-relieving techniques, as women experiencing chronic stress may have higher rates of BV.¹⁶ Chronic stress has been associated with unhealthy immune responses that may adversely affect the vaginal microbiome.¹⁶



Supplement Protocol

Primary Support:



ProbioMed™ Women

Dose	1 capsule per day with a meal
Duration	Ongoing as needed
Formula Highlights	ProbioMed™ Women is a targeted dairy-free, probiotic formula designed to help support vaginal and gastrointestinal (GI) microbial balance.* It provides 25 billion colony-forming units (CFUs) featuring ten highly-researched probiotic strains to help promote optimal vaginal pH and GI health, a healthy mood, and microbial balance.*

FloraMyces™

Dose	2 capsules per day
Duration	Ongoing as needed
Formula Highlights	FloraMyces™ is the nonpathogenic yeast <i>Saccharomyces boulardii</i> , which possesses probiotic activity that supports gastrointestinal health, vaginal health, and immune function.* <i>Saccharomyces boulardii</i> may help to promote a healthy vaginal microbial environment.*

Allicillin™

Dose	1 softgel per day
Duration	Ongoing as needed
Formula Highlights	Allicillin™ softgels contain Garlicillin™, a blend of garlic oil and parsley oil with specified levels of garlic sulfides and ajoene. Garlic promotes healthy vaginal microbial environments.*

GI Microb-X™

Dose	2 capsules per day on an empty stomach
Duration	Ongoing as needed
Formula Highlights	GI Microb-X™ is a blend of botanical extracts with a long history of use for supporting a healthy gastrointestinal (GI) microbial balance.* The GI microbial environment is also responsible for regulating estrogen homeostasis, which may promote reproductive and vaginal health. ⁵ Moreover, the ingredients in this formula have been demonstrated to support microbial balance.*

Warning: Do not use if pregnant or breastfeeding. Consult your healthcare practitioner for use beyond 30 days, or for use at higher dosing or frequency.

Secondary Support

Oil of Oregano

Dose	1 softgel per day with a meal
Duration	Ongoing as needed
Formula Highlights	Oil of Oregano may support the health of the GI tract by promoting intestinal cleansing and a healthy balance of gut bacteria.* In vitro studies reveal that oregano may help support the body's response to the growth of <i>Candida albicans</i> .*

Immunitone Plus™

Dose	4 capsules per day with meals
Duration	Ongoing as needed
Formula Highlights	Immunitone Plus™ is an herbal formula designed to support a healthy immune system and normal natural killer (NK) cell activity.* An unhealthy vaginal microbial environment has been shown to disrupt normal immune responses.*

For a list of references cited in this document, please visit:

<https://www.designsforhealth.com/api/library-assets/literature-reference---vaginal-microbial-balance-protocol-references>

Dosing recommendations are given for typical use based on an average 150 pound healthy adult. Health-care practitioners are encouraged to use clinical judgement with case-specific dosing based on intended goals, subject body weight, medical history, and concomitant medication and supplement usage. Any product containing botanical substances has the potential for causing individual sensitivities, appropriate monitoring, including liver function tests (LFT) is recommended.

For considerations regarding herb-drug and nutrient-drug interactions, please refer to reliable, evidence-based resources such as the Natural Medicine Database or Stargrove MB, Treasure J, McKee DL. *Herb, Nutrient, and Drug Interactions: Clinical Implications and Therapeutic Strategies*. St. Louis, MO: Mosby-Elsevier; 2008.

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*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.