

### **Frequently Asked Questions**

### Ther-Biotic® Women's Formula

How is Ther-Biotic® Women's Formula different from non-gender-specific, broad-spectrum probiotics such as Ther-Biotic® Synbiotic or Ther-Biotic® Complete?

The gut and the vagina have their own unique probiotic needs.

At the most basic level, the gut microbiome helps to break down and digest food. But, because the vast majority of human immune cells are housed within the GI tract, the gut microbiome also plays a significant role in both the development and maintenance of healthy immune system function. When it comes to probiotics and the gut, research demonstrates that supplementation with broad-spectrum probiotic products—such as Ther-Biotic® Synbiotic or Ther-Biotic® Complete—can positively support a balanced gut microbiome, which subsequently impacts a vast array of functions throughout the body, including digestive function, bone density, heart health, and immune system function.

While non-gender, broad-spectrum probiotics support healthy balance within the gut, probiotic products formulated for women, specifically support the unique needs of the urinary and vaginal microbiomes. Ther-Biotic® Women's Formula contains seven *Lactobacillus* species—including *L. rhamnosus*, *L. salivarius*, *L. gasseri*—that normally predominate vaginal microbiota populations and support healthy microbial balance. Specific *Bifidobacterium* species are also included for their ability to produce significant amounts of hydrogen peroxide, which helps to control the growth of yeasts and unfriendly bacteria while promoting the proliferation of beneficial vaginal microorganisms. Ther-Biotic® Women's unique probiotic combination was formulated not only to support vaginal comfort but also to facilitate the development of an optimal environment within the vaginal microbiome, thus ensuring the balanced, healthy functioning of the genitourinary tract.

# How is Ther-Biotic® Women's Formula different from other women's probiotic formulas?

Much like the gut, the vagina contains a diverse microbiome composed of varied populations of microorganisms. Ther-Biotic® Women's Formula, as a unique, multistrain formulation, supports this dynamic ecosystem by encouraging many beneficial species to thrive, thus supporting health diversity within the vaginal microbiome, rather than inundating it with only one or two strains.<sup>†</sup>

Additionally, many female-specific probiotic formulas include ingredients—such as D-mannose, cranberry, or other herbs—that may not be indicated for all women, which limits their supportive application. Ther-Biotic® Women's Formula, in contrast, is free of adjunct ingredients and contains a careful selection of ten targeted *Lactobacillus* and *Bifidobacterium* probiotics, supporting a broad range of effects and offering more mechanisms of action that serve to promote healthy vaginal microbiome balance.† This unique formulation is designed to be versatile and adapt to each woman's individual needs, whether those needs require daily, regular maintenance or targeted therapeutic support.† With 25B CFU per capsule and no artificial colors, flavors, or preservatives, Ther-Biotic® Women's Formula is a clean, hypoallergenic choice that can be trusted by any woman to promote vaginal microbiome balance.†



# What can elevate pH levels in the vagina, and how do elevated pH levels affect vaginal microbiome balance?

The vaginal environment is a unique ecosystem that thrives at a fairly acidic pH—a low pH between 3.8 and 4.5 is considered "healthy."

There are several common external factors that can upset healthy vaginal pH, including sexual intercourse, hormones, stress, and medications. As pH levels become less acidic and more alkaline, friendly bacteria have difficulty surviving, which negates their ability to exert protective and beneficial effects. Unfriendly bacteria and fungi, however, thrive in this environment and contribute to the onset of unpleasant symptoms.

The dynamic balance of the vaginal microbiome requires a prevalence of beneficial bacteria that compete with the unfriendly microorganisms responsible for common vaginal disturbances. For women who are prone to these types of disturbances, a vicious cycle can occur—medications used to treat these symptoms often eradicate all bacteria in the vagina, even beneficial microbes, which then leaves the vaginal ecosystem out of balance and ripe for another disturbance.

In the same way that it is important to support digestion and overall health by sustaining beneficial gut bacteria, promoting the growth and maintenance of beneficial bacteria in the vaginal microbiome with Ther-Biotic® Women's Formula can help to maintain vaginal pH, protect the vagina from unfriendly bacteria and fungi, and repopulate the reproductive tract with beneficial bacteria.<sup>†</sup>

## How do probiotics deter the growth of unfriendly microorganisms and promote a balanced microbiome within the female genitourinary tract?

The beneficial probiotics found in Ther-Biotic® Women's Formula have many mechanisms by which they support and contribute to healthy microbial balance within the female reproductive tract.<sup>†</sup>

#### The probiotics included in this formula:

- Help to maintain a healthy vaginal pH through lactic acid and hydrogen peroxide production.<sup>†</sup>
- Produce bioactive compounds that inhibit the growth of unfriendly bacteria and fungi, such as bacteriocins and hydrogen
  peroxide.<sup>†</sup>
- Compete with unfriendly microorganisms for nutrients and binding sites within the genitourinary tract.
- Support tissue integrity and strengthen mucosal barrier function.<sup>†</sup>
- Directly support both innate and adaptive immune responses by positively modulating the functions of immune cells and supporting cell-to-cell communication.<sup>†</sup>

### Can probiotics help with vaginal odor?

Yes! Vaginal odor is most commonly the result of an imbalance of friendly and unfriendly bacteria in the vagina—a disparity that largely favors unfriendly microbes. When beneficial bacteria, such as those found in Ther-Biotic® Women's Formula, are introduced into the vaginal microbiome, the symptoms associated with unfriendly bacteria are effectively decreased, reducing unpleasant and embarrassing odors.<sup>†</sup>

#### Can you insert probiotics into your vagina?

Yes, vaginal suppositories do exist. However, Ther-Biotic® Women's Formula is a supplement in capsule form and is designed for oral consumption. If a suppository is preferred, best practice suggests speaking with a healthcare practitioner for recommendations

### Can Ther-Biotic® Women's Formula be taken on a daily basis, or should the product only be used when more immediate needs arise?

To achieve optimum results, Ther-Biotic® Women's Formula can be used daily by girls and women seeking support for healthy microbiota balance within their vaginal, urinary, and gastrointestinal tracts. However, for those who are generally able to maintain healthy microbiome ecology, this formula can also be used on an as-needed basis according to the recommendations of a healthcare practitioner.

#### Is Ther-Biotic® Women's Formula safe to take during pregnancy and lactation?

Most clinical studies have demonstrated a reliable safety profile for supplementing with probiotics during pregnancy, especially for those who are deemed high risk for having children with allergies. However, the scientific community has not found sufficient evidence to support a general recommendation that all women should supplement with probiotics during pregnancy. Instead, it is recommended that each individual consults a physician prior to taking a probiotic supplement—including Ther-Biotic® Women's Formula—while pregnant.

#### What is the best time to consume probiotics?

According to the current body of research, probiotics have the highest rate of survival if they are taken at the beginning of a meal. The reasoning for this is two-fold: stomach acid is diluted initially at the beginning of a meal, and peristalsis—movement through the gastrointestinal tract—is increased, resulting in the successful delivery of greater quantities of probiotics to the large intestine where they are most effective.

# How does Klaire Labs® ensure that probiotic ingredients survive the acidic environments of the stomach and upper GI tract?

As a manufacturer of probiotic supplements, Klaire Labs® takes great pride in our ability to promote the survivability and efficacy of our probiotics. Ther-Biotic® Women's Formula contains InTactic®, a highly purified marine plant extract with acid-stable technology. Within the capsule, this extract is mixed with the included probiotics so that, when the capsule's contents are exposed to stomach acid, the extract forms a gel-like matrix surrounding the microorganisms that protects them. This gel-like matrix is broken down in the higher pH environment of the intestinal tract, which allows for the targeted release of probiotics within the intestines where the influence of probiotics is most profound.

### Do probiotics need to be refrigerated?

Many probiotic bacteria are naturally sensitive to heat and moisture; heat can kill these microorganisms, and moisture can activate them within the capsule, potentially shortening their lifespan. In general, it is highly recommended that non-shelf-stable probiotics—including Ther-Biotic® Women's formula—be refrigerated to optimally preserve their viability over time. This is why Ther-Biotic® Women's Formula is always shipped with a supporting cold pack. However, leaving probiotics out at room temperature (73°F/23°C) or warm temperatures for a few hours, or even a few days, will only result in small losses of microorganisms.