

Otterbein University

## Digital Commons @ Otterbein

---

Nursing Student Class Projects (Formerly MSN)

Student Research & Creative Work

---

Summer 8-6-2020

### Bacterial Vaginosis

Margaret Howard

Otterbein University, [howard2@otterbein.edu](mailto:howard2@otterbein.edu)

Follow this and additional works at: [https://digitalcommons.otterbein.edu/stu\\_msn](https://digitalcommons.otterbein.edu/stu_msn)



Part of the [Nursing Commons](#)

---

#### Recommended Citation

Howard, Margaret, "Bacterial Vaginosis" (2020). *Nursing Student Class Projects (Formerly MSN)*. 450.  
[https://digitalcommons.otterbein.edu/stu\\_msn/450](https://digitalcommons.otterbein.edu/stu_msn/450)

This Project is brought to you for free and open access by the Student Research & Creative Work at Digital Commons @ Otterbein. It has been accepted for inclusion in Nursing Student Class Projects (Formerly MSN) by an authorized administrator of Digital Commons @ Otterbein. For more information, please contact [digitalcommons07@otterbein.edu](mailto:digitalcommons07@otterbein.edu).

# BACTERIAL VAGINOSIS

Margaret Howard, BSN, RN

Otterbein University, Westerville, Ohio

## Introduction

- Bacterial Vaginosis (BV), the most common cause of vaginal infections in women of any age, however affecting approximately 40-50% of women of childbearing age (Sobel & Mitchell, 2020).
- BV is a type of vaginal inflammation in the lower genital tract caused by an imbalance between good and bad bacteria in the vaginal flora (Kahwati et al., 2020)
- BV has been associated with an increased risk of contracting sexually transmitted infections (STIs), pelvic inflammatory disease, and complications in pregnancy (Jones, 2019).
- Studies have shown women with BV report having low self-esteem, feelings of embarrassment about perceived foul odor, and experience social isolation (Jones, 2019).
- One of the responsibilities in my current nursing position is to notify women of pap smear and vaginal culture results.
- In regards to BV, frequently asked questions are: What is Bacterial vaginosis? How did I get BV? What can I do to get rid of BV? BV is very common; many women have never heard of this infection.
- I chose this topic to understand the causes, current treatments, complications of untreated BV in pregnancy, and explore alternative therapies. I want to improve education on the prevalence of BV and preventive measures for all women who experience this infection.

## Underlying Pathophysiology

- Bacterial vaginosis (BV) has been studied for over 60 years, and research has not been able to identify the exact process that leads to BV (Munzy & Schwabke, 2016).
- The pathogenesis of BV is unclear; however, research suggests it occurs from an overgrowth of anaerobic bacteria, such as Gardnerella Vaginalis, which causes a shift in the acidic vaginal environment (Bradshaw & Sobel, 2016).
- Lactobacilli is the predominant bacteria in the vaginal flora, which produces hydrogen peroxide, lactic acid, and other antimicrobials to maintain the vagina's health and protect against infections (Sule-Odu et al., 2020).
- BV is associated with a decrease in lactobacilli (Good Bacteria) and an overgrowth of other organisms, such as the Gardnerella vaginalis, Mycoplasma hominis, and several other anaerobic bacteria (Bad Bacteria), which cause a shift in the acidic vaginal environment (Buggio et al., 2019).
- The change in the vaginal flora allows other bacteria to grow and gain access to the upper genital tract, leading to infertility, complications of pregnancy, and pelvic inflammatory disease (van de Wijgert et al., 2020).

## Significance of Pathophysiology

- BV is not considered a sexually transmitted infection (STI); however, there is an association with it occurring when there is a new partner or multiple sexual partners (Munzy & Schwabke, 2016).
- Bacterial vaginosis is considered a mild disease; however, when left untreated can cause serious complications and health risks. Many women suffer from a higher risk of reproductive tract infections and pregnancy (Wang et al., 2019).
- In a meta-analysis, the risk of preterm delivery more than doubled in patients who were asymptomatic of BV (Afolabi et al., 2016).
- Certain activities, such as unprotected intercourse, sharing of sex toys, or frequent douching, put women at higher risk of developing BV (Jones, 2019).
- Pregnant women with BV are more likely to have premature rupture of membranes, spontaneous abortion, or develop chorioamnionitis (Pramoda, 2020).
- Understanding the pathophysiology of BV allows for improving patient education, implementing prevention strategies, diagnosing early in pregnancy, and investigating new effective treatments.



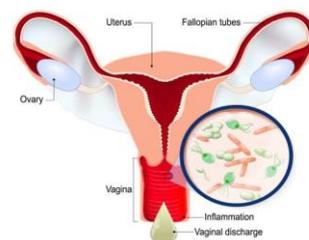
Retrieved from: <https://www.top10homeremedies.com/news-facts/10-things-never-vagina.html>

## Diagnosis & Treatment

- There are several tests to diagnose BV.
- All women with suspected BV or other vaginal infections should undergo a physical examination by a health care provider.
- The health care provider will perform a pelvic exam, collect a sample of vaginal discharge, wet mount a slide, examine the slide under a microscope, and test the vaginal pH (Jones, 2019).
- In clinical practice, when a microscope is available, the diagnosis of BV is based on at least three Amsel criteria.
- Amsel criteria** are thin, greyish-white vaginal discharge, elevated vaginal pH, presence of clue cells, and a positive "whiff" test, which is the release of a fish amine odor with an application of potassium hydroxide to the sample (Jones, 20019).
- The Nugent score** = is a Gram stain scoring system of vaginal swabs to diagnose BV. The gram-stain is the gold-standard for diagnosing BV (Sule-ODU et al., 2020).
- Commercial tests such as Affirm VPIII DNA test detects BV in under 30 minutes, while the OSOM BVBlue results in 10 minutes (BD, 2020; Sekisui, 2020).
- The current treatment for BV includes oral or vaginal antibiotics Metronidazole, Clindamycin, or Tinidazole (Jones, 2019).
- About 60-80% of women are cured after an initial course of antibiotic treatment (van de Wijgert et al., 2020). However, recurrence rates are high, and more than 50% experience recurrence of BV within 12 months (van de Wijgert et al., 2020).
- Aside from antibiotic treatments, the use of Lactobacilli probiotics has been evaluated alone and as an adjunct treatment to antibiotics for treatment of BV infections and to deter recurrence (van de Wijgert et al., 2020).
- According to Wang et al. (2019), "Probiotics are live microorganisms which confer a health benefit on the host when administered in adequate amounts" (p2). The use of probiotics dated back to the 1900s for preventing urogenital diseases, the practice was lost with the initiation of antibiotics in the 1940s (Wang et al., 2019).
- Lactobacilli probiotics may restore the lactobacillus in the vagina and prevent or disrupt other bacteria that cause BV. Many clinical trials and systematic reviews of probiotic treatment show favorable results; further investigation is necessary to determine which route of administration and which strains are most effective for proper treatment (Sobel & Mitchell, 2020).

## Signs & Symptoms

- Mild vaginal itching
- Vaginal discharge that is thin, grayish-white, or green
- Foul-smelling "Fishy" vaginal odor, especially after intercourse
- Burning with urination
- Sometimes women have no signs of symptoms of BV and found during a routine visit.



<https://healthandvitalitycenter.com/medical-conditions/chronic-bacterial-vaginosis/>

## Implications for Nursing Care

- Health care providers are vital resources in teaching proper vaginal hygiene to prevent bacterial vaginosis. Women at any age can get BV, but it tends to happen more frequently in sexually active women (Bradshaw & Sobel, 2016).
- Conversations of BV and preventative measures need to start early and often. Discussions of feminine hygiene, BV, sex, and STIs need to begin with adolescents and teens at routine pediatric visits.
- Developing a nurse-patient relationship with open communication and trust is critical in disseminating information on BV prevention.
- Nurses can educate adolescents, teens, and women on tips for preventing BV: eliminating scented soaps, body washes, and laundry detergents. Avoid bubble baths, bath bombs, wearing a thong or tight-fitting underwear. Switch to unscented feminine hygiene products, limit the number of new sexual partners, and use condoms with every sexual encounter (Sexual Health and Family Planning Act, 2017).
- Bacterial vaginosis can lead to serious physical complications. Early education is primary prevention to improving knowledge of BV and ensuring women are aware of preventative measures, detections and proper treatments of bacterial infections.

## Conclusions

- Although BV is the most common vaginal infection in women and has been studied for many years, the exact pathogenesis is not clearly understood.
- The clinical symptoms of BV are relatively uncomplicated and easily measured. The fact that not all women experience symptoms remains a problem.
- Current treatment options are useful for short-term management of symptoms; however, recurrence rates are high.
- Further research is needed to define the actual cause of BV, ways to prevent a recurrence, to decrease complications in pregnancy, and alternative therapies without repeated courses of antibiotics.

## References



Retrieved from: <https://www.keeperawesome.com/bacterial-vaginosis>