

Bacterial Vaginosis

According to the Centers for Disease Control and Prevention (CDC), bacterial vaginosis (BV) is the most common cause of vaginitis symptoms among women of childbearing age. It previously was called nonspecific vaginitis, or Gardnerella-associated vaginitis.

Symptoms

The main symptom of BV is an '**abnormal, foul-smelling vaginal discharge**'. Some women describe it as a fish-like odor that is most noticeable after having sex. Other symptoms may include:

- Thin vaginal discharge, usually white or gray in color
- Pain during urination
- Itching around the vagina

Some women who have signs of BV, such as increased levels of certain harmful bacteria, have no symptoms. A health care provider who sees these signs during a physical examination can confirm the diagnosis by doing lab tests of vaginal fluid.

Causes

The cause of BV is not completely understood. It can develop when an event (such as sexual contact) disrupts the balance between the good bacteria that protect the vagina from infection and the harmful bacteria that cause illness. Normally the mix of bacteria in the vagina is dominated by beneficial bacteria called lactobacilli. These bacteria normally live in the vagina and produce lactic acid and acidify the vaginal environment. This acid environment protects the vagina from other bacteria that cause problems, such as "*Gardnerella vaginalis*", *Bacteroides*, *Mobiluncus*, and *Mycoplasma hominis*. In addition to BV, other causes of vaginitis are vaginal yeast infections (vulvovaginal candidiasis) and trichomoniasis. Vaginitis is the most frequent gynecologic diagnosis in women.^{[1][2][3]} BV, candidiasis, and trichomoniasis share many symptoms, making accurate diagnosis difficult. In the United States, bacterial vaginosis is currently the most common cause of vaginitis, accounting for almost half of cases in women of childbearing age.^[4]

Diagnosis

Exams and tests

Pelvic exam

Health care providers can obtain a sample of vaginal fluid to view under a microscope, either stained or in special lighting, to look for bacteria associated with BV. Then, they can diagnose BV based on:

- Absence of lactobacilli
- Presence of numerous "clue cells" (cells from the vaginal lining that are coated with bacteria)
- Fishy odor
- Change from normal vaginal fluid
- pH of vaginal fluid

Often vaginal yeast infections and BV have similar symptoms, so vaginal yeast infections should be ruled out before diagnosing BV.

Diagnostic criteria

Doctors have developed criteria for diagnosing BV. The most commonly used criteria is the **Amsel's criteria**. Amsel's diagnostic criteria for bacterial vaginosis

- Thin, homogeneous discharge
- Fishy odor
- Clue cells present on microscopy
- Vaginal pH >4.5

Three of these four criteria must be met. The Amsel's criteria accurately diagnoses bacterial vaginosis in 90% of affected women.^[5] Other diagnostic criteria are Nugent's^[6] and Spiegel's.^[7] Both of these criteria rely on the frequency and appearance of bacteria (especially *Lactobacillus*) in a Gram stain of vaginal material.

Treatment

Antibiotics such as metronidazole or clindamycin are used to treat women with BV. Pregnant women and women with recurrent infections are treated differently than those with acute infections. Cure rates are generally greater than 75%.^[8] For updated information about the treatment for BV and other sexually transmitted infections, read the CDC's Sexually Transmitted Diseases Treatment Guidelines.

How Bacterial Vaginosis is Spread

It is not clear what role sexual activity plays in the development of BV, but BV is more common among women who have had vaginal sex. BV is not always from sexual contact. Certain things can upset the normal balance of bacteria in the vagina and increase the risk of BV. These include:

- Having a new sex partner or multiple sex partners
- Douching
- Using an intrauterine device (IUD) for birth control
- Not using a condom

Related Problems

Complications

In most cases, BV causes no complications. There have been documented risks of BV, however, such as an association between BV and pelvic inflammatory disease (PID). PID is a serious disease in women that can cause infertility and tubal (ectopic) pregnancy. BV also can cause other problems such as premature delivery and low-birth-weight babies. Some health experts recommend that all pregnant women who previously have delivered a premature baby be checked for BV, whether or not they have symptoms. A pregnant woman who has not delivered a premature baby should be treated if she has symptoms and laboratory evidence of BV, but recent research recommends against screening in low risk pregnant women. BV also is associated with increased chances of getting one or more sexually transmitted diseases (STDs), including chlamydia, gonorrhea, and HIV infection.

References

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