Bacterial Vaginosis (BV) is a condition of disrupted balance of the vaginal microflora.

**Learning Objectives**

- Describe the symptoms, causes and methods of diagnosis for bacterial vaginosis

**Key Points**

- The most common symptom is white or gray discharge, that can be thin, with fish-like odor (especially strong after intercourse).
- Common bacterial species that can overgrow and cause symptoms of BV are Gardnerella vaginalis, Mobiluncus, Bacteroides and Mycoplasma.
- The treatment regimen is most often metronidizole (for seven days) or clindamycin. BV has high recurrence rates.

**Key Terms**

- **recurrence**: The returning of a disease that was already treated successfully.

Bacterial vaginosis (BV) is a condition where the vaginal microflora in women have become disrupted. BV is not a typical sexually transmitted disease since women who have never had sexual contact can suffer from this condition, too. However, having sex with a new partner or multiple partners increases the risk of getting BV but it is unclear how and why that happens. BV is a very common condition and it is estimated that about 1 in 3 women will develop it in their lifetime.
Symptoms and diagnosis

Bacterial vaginosis may be completely asymptomatic. The most common symptom is white or gray discharge, that can be thin, with fish-like odor (especially strong after intercourse). Sometimes itching outside of the vagina or/and burning during urination can also be present. For diagnosis in the clinical practice, a swab from the vaginal wall is obtained and examined with a few different tests called the Amsel criteria:

- the discharge should be thin, white, yellow and homogenous
- clue cells must be present in the specimen when observed under the microscope
- pH > 4.5
- the release of fishy odor after the addition of 10% KOH to the specimen

At least three of these tests have to be positive for conclusive diagnosis. Alternative tests can be performed as well and they usually involve Gram staining of the specimen and observing the types of bacteria present in it. Infectious agents

The normal vaginal microflora contains many species with *Lactobacillus* as the dominant representative. Some *Lactobacilli* produce hydrogen peroxide which can prevent the overgrowth of bacteria that will disturb the balance and cause BV. Some of the bacteria that will produce BV symptoms are *Gardnerella vaginalis, Mobiluncus, Bacteroides*, and *Mycoplasma*. Factors that are known to disturb the balance are: antibiotics, pH imbalance (douching can alter vaginal pH), psychosocial stress, iron deficiency anemia in pregnant women and women with STD.

Women who already have BV are at increased risk for sexually transmitted diseases including HIV. Bacterial vaginosis during pregnancy increases the risk of premature birth. Treatment

The treatment regimen is most often *metronidizole* (for seven days) or *clindamycin*. The treatment is usually successful but BV has high rates of recurrence. Treatment of male sex partners is usually not recommended but BV can be transferred to female sex partners.