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# Bacterial vaginosis

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## Key facts

- Bacterial vaginosis (BV) is a very common cause of vaginal discharge among women of reproductive age.
- It is treatable and curable.
- BV prevalence varies across countries and population groups, but a recent systematic review and meta-analysis of the global BV prevalence among women of reproductive age range from 23–29%.
- BV increases the risk of acquiring HIV, acquisition of and transmission of other STIs and if left untreated can lead to adverse effects of pregnancy.

## Overview

Bacterial vaginosis (BV) is a very common condition in women.

Although it occurs globally, it is more common in low-resource settings and areas with limited access to healthcare.

The exact cause of BV is not known. While many “good” bacteria are normally found in the healthy vagina, BV results from an imbalance between “good” and “harmful” bacteria microorganisms. More specifically, an overgrowth of pathogens such as *Gardnerella spp.*, *Prevotella spp.*, *Mobilincus spp.*, *Megaspahera spp.*, *Sneathia spp.* and mixed vaginal anaerobes species would eventually replace the “beneficial” *Lactobacilli* that helps maintain

a healthy vaginal environment. The exact cause of this imbalance is not known but has been attributed to douching and having unprotected sex with a new or several sex partners.

## Signs and symptoms

Some women with BV may not notice any symptoms whereas others might express:

- **unusual discharge from the vagina**
- **a strong fishy or musty odour from the vagina**
- **itching or irritation around the vagina**
- **burning during urination.**

BV is a very common condition and does not usually cause serious complications. However, if untreated it could lead to:

- **problems in pregnancy (for example, spontaneous abortion and preterm delivery)**
- **higher risk of sexually transmitted infections, including HIV**
- **pelvic inflammatory disease.**

Vaginal cleansing and douching can increase the risk of developing BV. Intravaginal practice, e.g. insertion of herbs or other products into the vagina, is another risk factor.

## Diagnosis

Healthcare providers will discuss the patient's medical and sexual history and conduct a genital examination to check for the presence of vaginal discharge. The most commonly used diagnostic test for BV is wet mount microscopy or Gram stain of vaginal fluid smear, possibly combined with vaginal pH measurement and sniff test in the Amsel criteria.

Clinical and laboratory assessments for bacterial vaginosis can be affected by factors such as recent sexual activity, menstrual cycle, douching, intravaginal practice (insertion of herbs or other products) and use of antimicrobial agents.

In settings where laboratory diagnosis is not possible, a [syndromic approach for case management](#) to diagnose and treat vaginal discharge is recommended.

## Treatment

BV is treatable and curable.

It is best treated with the antibiotic metronidazole but efficacy of treatments for BV is low if not combined with lifestyle/risk reduction advice. Further instructions on avoiding excessive vaginal cleansing or douching and intravaginal practice should be provided.

Other treatments include:

- **metronidazole gel**
- **tinidazole**
- **clindamycin (oral)**
- **clindamycin (topical)**
- **secnidazole.**

Women who present with vaginal discharge, and who are managed based on the syndromic approach are treated for BV, candidiasis and trichomoniasis. Metronidazole is indicated for both BV and trichomonas, while topical or oral antifungals are indicated for candidiasis.

## WHO response

WHO works with partners and Member States to reduce the burden of bacterial vaginosis globally. This work includes developing research and evidence to better understand the epidemiology, burden and impact of BV, particularly in low- and middle-income countries.

In 2021, the Department of Global HIV, Hepatitis and STIs Programmes at WHO published [Guidelines for the management of symptomatic sexually transmitted infections](#) to provide updated, evidence-informed clinical and practical recommendations on case management of people with STIs.

In 2024, WHO published [Recommendations for the treatment of Trichomonas vaginalis, Mycoplasma genitalium, Candida albicans, bacterial vaginosis and human papillomavirus \(anogenital warts\)](#) to provide evidence-informed clinical and practical recommendations on case management of BV.

- **Guidelines for the management of symptomatic sexually transmitted infections**
- **Bacterial vaginosis: comparison of vaginal metronidazole with vaginal clindamycin in the treatment of bacterial vaginosis**
- **Trichomoniasis and bacterial vaginosis in pregnancy: inadequately managed with the syndromic approach**