



Doctors Laboratory, Inc.
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Vaginitis – Symptoms and Diagnosis

Vaginitis is an inflammation of the vagina characterized by discharge, odor, irritation, and/or itching. It is often caused by infections, some of which are associated with more serious diseases. The most common vaginal infections are (a) bacterial vaginosis, (b) trichomoniasis, and (c) candidiasis. Some vaginal infections are transmitted through sexual contact, but others such as yeast infections probably are not, depending on the cause.

Bacterial Vaginosis (BV):

BV is the most common cause of vaginitis symptoms among women of childbearing age. Also known as “nonspecific vaginitis” or “Gardnerella-associated vaginitis”, BV is associated with sexual activity. BV reflects a change in the vaginal ecosystem where normal flora has been replaced by causative agents of BV, primarily Gardnerella vaginalis. A change in sexual partners and douching may increase the risk of acquiring bacterial vaginosis. While the primary symptom of BV is an abnormal, odorous vaginal discharge, nearly half of the women with clinical signs of BV report no symptoms. Scientific studies suggest that BV is common in women of reproductive age. In the United States, as many as 16 percent of pregnant women have BV.

Researchers have shown an association between BV and pelvic inflammatory disease and ectopic pregnancy. BV also can cause adverse outcomes of pregnancy such as premature delivery and low-birth-weight infants. Therefore, CDC recommends that doctors check all pregnant women for BV who previously have delivered a premature baby, whether or not the women have symptoms. BV is also associated with increased risk of gonorrhea and HIV infection.

Complications of BV:

Postinduced-abortion pelvic inflammatory disease
Post-hysterectomy vaginal cuff cellulitis
Plasma cell endometritis

In pregnant women:

Amniotic fluid infection
Clinical chorioamnionitis
Postpartum endometritis
Premature rupture of the membranes
Preterm delivery
Low birth weight

Trichomoniasis:

Trichomoniasis, sometimes referred to as "trich," is a common STD that affects 2 to 3 million Americans yearly. It is primarily an infection of the urogenital tract; the urethra is the most common site of infection in man, and the vagina is the most common site of infection in women. Trichomoniasis, like many other STDs, often occurs without any symptoms. Men almost never have symptoms. When women have symptoms, they usually appear within four to 20 days of exposure. The symptoms in women include a heavy, yellow-green or gray vaginal discharge, discomfort during intercourse, vaginal odor, and painful urination. Irritation and itching of the female genital area, and on rare occasions, lower abdominal pain also can be present. The symptoms in men, if present, include a thin, whitish discharge from the penis and painful or difficult urination.

Research has shown a link between trichomoniasis and two serious sequelae - increased risk of HIV transmission and deliver a low-birth-weight or premature infant.

Candidiasis:

Vaginal yeast infection or vulvovaginal candidiasis is a common cause of vaginal irritation. Approximately 75 percent of all women will experience at least one symptomatic yeast infection during their lifetimes. Yeast are always present in the vagina in small numbers, and symptoms only appear with overgrowth during pregnancy, uncontrolled diabetes mellitus, use of oral contraceptives or antibiotics, use of douches, perfumed feminine hygiene sprays, and topical antimicrobial agents, and wearing tight, poorly ventilated clothing and underwear. Whether or not yeast can be transmitted sexually is unknown. When present, the most frequent symptoms of yeast infection in women are itching, burning, and irritation of the vagina. Painful urination and/or intercourse are common.

Diagnosis of Bacterial Vaginosis, Trichomoniasis and Candidiasis:

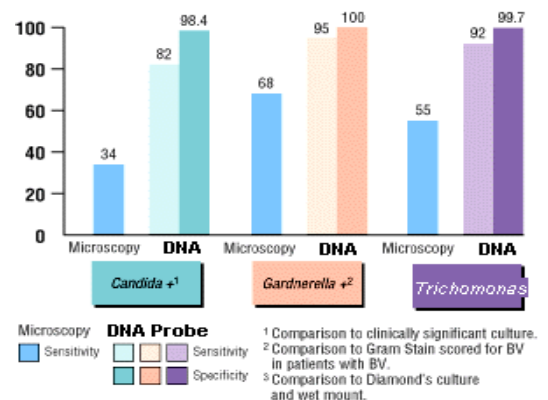
Since all three conditions may be asymptomatic, the diagnosis of vaginitis may not always be determined adequately solely on the basis of symptoms or a physical examination but should be based upon laboratory testing of vaginal fluid.

Currently the most commonly performed test is “Vaginal Wet Prep. Exam.”. While simple to perform, wet prep. exam. can miss as much as 66% of *Candida*, 45% of *Gardnerella* and 32% of *Trichomonas* infections. (see insert on right). Other tests, e.g., culture and stains require multiple specimen collections, have low sensitivity, and results are delayed as much as four days.

Doctors Laboratory Inc. offers a DNA-Probe Test for the diagnosis of *Candida* species, *Gardnerella vaginalis* and *Trichomonas* from vaginal fluid specimens. This test demonstrates 98.2%, 100% and 99.9% specificity and 80.6%, 89% and 89.6% sensitivity against *Candida* spp., *Gardnerella vaginalis* and *Trichomonas*, respectively, on symptomatic patients, as compared to culture and Gram Stain methods. The results can be available within a few hours. The following insert describes collection and ordering procedure:

DNA Probe Test vs. Wet Mount Microscopy

The presence of yeast or trichomonads as well as use of OTC remedies and antibiotics hampers the clinician's diagnosis of Bacterial Vaginosis (using 3 out of 4 clinical signs) — but the DNA Probe Test more frequently identifies mixed infections.



Test Name: Vaginitis Profile (Trichomonas, Gardnerella, Candida)

Doctors Laboratory ordering Test Code: **2235**

CPT Codes: **87660, 87510 and 87480**

Specimen Submission: **Vaginal Fluid in “Affirm VPIII Transport System”.**

Instructions on the package.

Storage of kit before and after collection: **Room temperature, stable for 72 hrs.**

Turn-around Time: **One day, results may be available if called in the afternoon**

Days test performed: **Monday – Friday**

Unacceptable Specimen: **(1) Not vaginal fluid, or (2) Not collected and submitted in “Affirm VPIII Transport System”**

References: 1. <http://www.niaid.nih.gov/factsheets/stdvag.htm>

2. <http://www.cdc.gov/std/BV/STDFact-Bacterial-Vaginosis.htm>