VAGINAL INFECTIONS

Patient Information Fact Sheet

>What are vaginal infections?

All women have a natural vaginal discharge. Vaginal secretions change depending on the time of the month in women of reproductive age. The normal secretion is usually a milky liquid, which dries as a white or cream mark; this changes to a clear, stretchy mucus around the time of ovulation. Vaginal secretions should not smell unpleasant or cause pain or itching. An infection can cause the secretions to change. There may be more discharge than normal, a change in color, a strong or unpleasant smell or itching and discomfort.

>What causes vaginal infections?

Irritation and discharge may be caused by leaving a tampon in too long, a reaction to perfumed soaps, bubble baths or laundry soap or wearing nylon underwear or tights. A cervical erosion (a small ulcer on the neck of the womb) can cause an increase in secretions which should be checked by a doctor. The contraceptive pill may also cause changes to cervical fluids. Sexually transmitted diseases such as gonorrhea and chlamydia can also cause symptoms and should be treated by a gynecologist. The most common vaginal infections are yeast infection (See "Yeast Infections"), bacterial vaginosis and trichomoniasis (TV). Gonorrhea and chlamydia are two serious sexually transmitted diseases that can have vaginal symptoms, so these are listed below as well.

What are the symptoms of vaginal infections?

Yeast infection (also known as thrush or candidiasis) is an infection caused by a fungus (yeast) called *Candida albicans*. This organism is present naturally in the intestines and vagina but in certain circumstances overgrowth may occur, causing an infection. The balance of microorganisms in the vagina may be upset by antibiotics, pregnancy, the use of scented soaps or bubble baths or by wearing nylon underwear or tights. A yeast infection causes a thick white discharge often described as resembling cottage cheese. The discharge should not smell or change color; if it does it may indicate that a different type of infection is present. If it is your first yeast infection, your doctor may culture a sample to confirm the diagnosis. If the infection recurs, the symptoms are usually recognized and no further testing should be necessary.

Bacterial vaginosis is also known as gardnerella and causes a grey, watery discharge with a strong "fishy" smell. It is caused by an increase in the bacteria that normally live in the vagina. A culture usually needs to be taken from the vagina to confirm the diagnosis.

Trichomoniasis is caused by a tiny parasite and is sexually transmitted. The symptoms start between four days and three weeks after contact with an infected person. It causes a thin, yellow or green discharge, which may be frothy and have an unpleasant "fishy" smell. Again, a vaginal swab is usually required to confirm the diagnosis. Sometimes there are no symptoms.

Gonorrhea is caused by bacteria and is sexually transmitted. It may not always cause symptoms. If it does, the symptoms may be a sore throat, pain or discomfort when passing urine and a thin, watery, yellow or green vaginal discharge. It is not usually detected during cervical smear tests or routine health checks if there are no symptoms. If a sexual partner has gonorrhea, it is important for the



other partner to be tested even if they do not have any symptoms. If symptoms clear up without treatment it is still vital for the infection to be treated. Gonorrhea can be cured with antibiotics but, there is increasing risk of antibiotic resistance. If symptoms do not improve with treatment, the patient should return to their doctor for reevaluation. Gonorrhea can spread inside the body and can cause pelvic inflammatory disease (PID) in women. PID can cause infertility. A gynecological exam is strongly recommended.

Chlamydia is a sexually transmitted infection caused by bacteria called Chlamydia trachomatis. Infected persons often have mild symptoms or none at all. Most people do not get tested until complications arise. In those that do get symptoms, these usually occur around a month after infection and include pain or stinging when passing urine, a milky or mucus-like discharge, pain during sexual intercourse, bleeding between periods and stomach pain. If left untreated chlamydia can cause PID and may affect fertility. A vaginal culture is required to confirm the diagnosis.

>How are vaginal infections treated?

A yeast infection is treated with **antifungal** creams that are applied locally to the area surrounding the vagina or with antifungal suppositories or cream inserted into the vagina. Often a combination of the two is used. Examples of topical antifungal agents used to treat yeast infections include **clotrimazole** (Gyne-Lotrimin 3, Gyne-Lotrimin 7), **terconazole** (Terazol 3, Terazol 7), **miconazole** (Monistat 3, Monistat 7, Monistat 1 Combination Pack), and **nystatin vaginal tablets**. Many treatments for yeast infections are available to buy from a pharmacy without a prescription.

Treatment for bacterial vaginosis is with antiprotozoal-antibacterial tablets containing either **tinidazole** (Tindamax) or **metronidazole** (Flagyl). Metronidazole is also available as a vaginal gel (MetroGel-Vaginal). A cream containing **clindamycin** (Cleocin Cream) may also be prescribed.

Trichomoniasis can also be treated with antiprotozoal-antibacterial tablets containing either **tinidazole** or **metronidazole**. Gonorrhea is treated with antibiotics using a combination of **ceftriaxone** (Rocephin) plus **azithromycin** (Zithromax) or **doxycycline** (Vibramycin) given orally or as injections. In cases where ceftriaxone is unavailable, it can be replaced by **cefixime** (Suprax). Effective treatment will ensure a cure of this condition. Chlamydia is treated with antibiotics. The antibiotics usually prescribed include **azithromycin** and **doxycycline**.

>Further information

Centers for Disease Control and Prevention: www.cdc.gov/STD

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