

# GYNECOLOGICAL CONDITIONS AND HIV/AIDS



information about  
the symptoms, tests and treatments  
for common gyn conditions

Gynecological (GYN) conditions are common in women living with HIV and AIDS. They affect a woman's reproductive organs including the ovaries, fallopian tubes, uterus, vagina, cervix and vulva (see graphic page 4). For women living with HIV, GYN conditions can be more frequent, serious and difficult to treat. They can range from chronic, repeated yeast infections (candidiasis), abnormal periods, vaginal warts to cervical cancer. For many women, frequent GYN conditions are the first signs of immune suppression due to HIV infection. ■■■ This publication contains information about the symptoms, tests and treatments for common GYN conditions. It is a tool you can use when discussing your GYN health with your doctor, and it can assist in routine self-monitoring.



A PUBLICATION FROM

PROJECT

*inform*

Information,  
Inspiration and  
Advocacy for People  
Living With HIV/AIDS

OCTOBER 2005

## WHAT'S INSIDE

Vaginal candidiasis: 2; Tips that may help prevent yeast infections: 2; Herpes: 3; Syphilis: 3; Other common STIs: 3; Pelvic inflammatory disease: 4; Human papillomavirus: 4; Cervicitis: 4; Menstrual changes: 5; Common GYN conditions in women living with HIV/AIDS: 6&7; Menopause: 8; Interactions between anti-HIV drugs and oral contraceptives: 8; The use of HRT: 8; Screening: 8; Some final words on GYN conditions: 9; Standard GYN screening for women: 10; Reading the Pap smear results: 10; Understanding your immune system: 11; Stress and how it affects your immune system 11; Resources: 12.

## Vaginal candidiasis

Yeast is a common fungus that normally exists in your body. Vaginal candidiasis is an overgrowth of that yeast in the vulva and vagina. Many things can disrupt the natural balance of the vaginal environment and cause a yeast infection. They can include taking antibiotics, birth control pills, steroids, pregnancy, obesity, diabetes and poor hygiene.

For HIV-positive women, yeast infections are the most common first symptom of HIV. Repeated yeast infections and those that respond less well to treatment over time are signs of a weakening immune system. As CD4+ cell counts fall below 200, the risk increases for repeated yeast infections to occur in the vagina, mouth and throat (esophagus).

Symptoms of vaginal candidiasis include itching and swelling of the vulva, thick white-yellow or cheesy discharge and burning while urinating or having sex. As the immune

system weakens, the main place of the yeast infection may move from the vagina to the mouth or esophagus. It can also affect organs and tissues throughout the body (this is called *disseminated* or *systemic* candidiasis).

There are several ways to treat vaginal candidiasis, including creams and suppositories like clotrimazole (Gyne-Lotrimin). You

can purchase these both over-the-counter and by prescription. If the candidiasis does not respond to local (at the site of infection) treatment, fluconazole (Diflucan) or ketoconazole (Nizoral) are usually effective. These pills are taken orally and treat fungal infections throughout the body (systemically).

Several studies caution that women with low CD4+ counts (below 50) who have used fluconazole extensively are more likely to develop candidiasis that is resistant to fluconazole, (a very potent and effective anti-fungal treatment). Many advise using local treatments first, keeping systemic therapies like fluconazole as a back-up if fungal infections become more serious and/or life-threatening.

For more information, read Project Inform's publications, *Oral Candidiasis*, *Vaginal Candidiasis*, and *Systemic Candidiasis*.



### anti-fungal drugs called azoles

Some anti-fungal drugs (called *azoles*) have been shown to cause birth defects in animal studies and as a result are not recommended for use by pregnant women.

## tips that may help prevent yeast infections

- **Change your diet.** Sugar is like food for yeast. Some women decrease their sugar intake, decrease caffeine, add yogurt with lactobacillus to their diets (check the label), or take acidophilus capsules (available in health food stores).
- **Avoid douching.** Douching changes the vagina's natural acid level (called pH level) and can cause inflammation. Both may increase the risk of getting other infections, including STDs. Douching can also push infections further up into the GYN tract. Your body has a natural douching system—let it work!
- **Avoid scented laundry soap, bleach and fabric softeners.** Scented laundry soap contains chemicals that can make a yeast infection worse. Residual bleach in your clothing may destroy healthy bacteria that help keep fungal infections at bay. Fabric softeners block moisture absorption, causing moist areas of the skin to stay damp, thus encouraging growth of bacteria and fungi, etc.
- **Avoid wearing tight clothes.** They block air flow, creating a damp place on your skin. Yeast infections grow best in moist places. Loose clothing allows air to flow and provides a dryer environment.
- **Wear cotton underwear.** Unlike synthetics such as polyester, lycra and nylon, cotton fabric lets air in and doesn't trap moisture.
- **Avoid washing the vaginal area with deodorant soaps.** Some women claim that when they stop using scented soaps, yeast infections heal better and don't repeat as often. This includes avoiding bubble baths.
- **Try a non-soap cleanser.** Soap can dry the skin and can worsen the condition of the vaginal area affected by a yeast infection. Non-soap cleansers can be found at many health food stores and supermarkets. Some of these products contain natural ingredients that might help control infections and promote skin healing.

## Herpes

Genital herpes is a sexually transmitted infection, most commonly caused by herpes simplex virus 2 (HSV-2). Its close relative, HSV-1, causes herpes of the mouth, lips and skin, like cold sores. Genital herpes recur and there is no cure. Symptoms include single or multiple small blisters that open and become sores after a few days. Other symptoms include swelling of the vulva, fever and enlarged and tender lymph nodes in the stomach and groin area (abdomen).

The most common sites for herpes in women are the labia majora (the vagina's "outer lips"), labia minora (the "inner lips") and butt. Though herpes may lay dormant for long periods, it can appear again at anytime, especially for those with a weak immune system. Sexual contact should be avoided while sores are present because of the increased risk of passing herpes onto others. However, the virus may also shed when a person has no symptoms or sores.

For HIV-positive women, the painful sores in and around the genitals or anus tend to be more frequent, last longer and need higher doses of treatment. Having sores that persist for more than a month is considered an AIDS-defining illness.

Oral acyclovir (Zovirax) and famciclovir (Famvir) are used to treat herpes. Valacyclovir (Valtrex) requires fewer pills and thus is easier to incorporate into treatment regimens where many other pills are being used. However, it is not recommended for use in people with immune suppression. Some still use valacyclovir, however, and monitor carefully for side effects. For women with frequent outbreaks, daily acyclovir therapy may help prevent them. If herpes stops responding to acyclovir (sores don't go away within two weeks), other therapies are available. These include intravenous foscarnet (Foscavir).

Many of the same tips provided for preventing yeast infections can help in making you more comfortable and aid in healing if you are experiencing a herpes outbreak. See the box on page 2 for these tips.

## Syphilis

Syphilis is a sexually transmitted infection caused by the bacteria, *Treponema pallidum*. It enters the body through tiny scratches in the skin, where it multiplies and then spreads.

Early diagnosis and treatment is important to keep the infection from progressing. In adults, genital sores from syphilis also make it easier to get or pass on HIV. There is a 2- to 5-fold higher risk of getting HIV when syphilis is present. Syphilis progresses in three stages: **PRIMARY**, **SECONDARY** and **TERTIARY** syphilis.

**PRIMARY SYPHILIS** occurs about three weeks after an exposure. The first symptom is a hard, painless, red-rimmed sore at the site of sexual contact. It disappears after 2–6 weeks.

**SECONDARY SYPHILIS** occurs one week to six months after the sore heals. Symptoms include widespread painless lesions, swollen lymph glands and a rash especially on the palms of the hands and soles of the feet.

**TERTIARY SYPHILIS** may show up years later when an infected person was not treated, even people who never had symptoms. It remains in the body and may begin to damage the brain, nerves, eyes, heart, blood vessels, liver, bones and joints. Late stage symptoms include poor muscle movements, paralysis, numbness, gradual blindness and dementia. This damage may cause death.

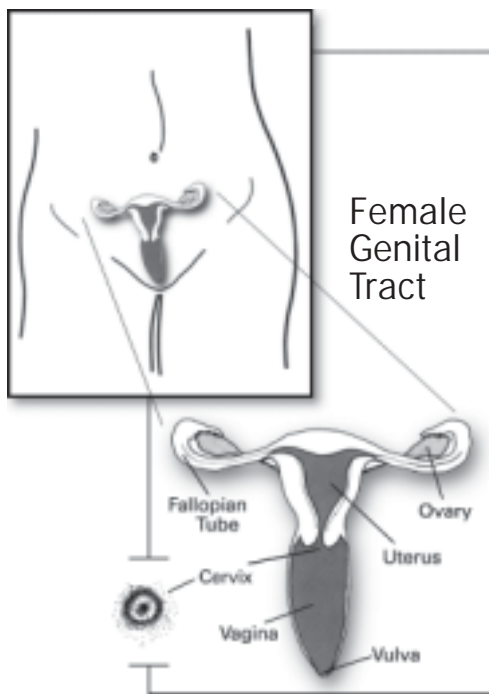
Standard treatment for syphilis is an injection of Benzathine penicillin. The dosage will depend on the stage of syphilis. For patients who are allergic to penicillin, doxycycline and tetracycline are prescribed.

A single dose of penicillin can cure a person who has syphilis for less than a year. Penicillin will kill the bacteria and prevent further damage, but it will not repair any damage already done. Several studies report that treating primary syphilis with a single dose of penicillin may fail in HIV-positive persons. Therefore, it may be necessary to treat it with higher doses or require longer courses of antibiotics. Some people have no symptoms of syphilis despite infection, so it's important to routinely screen for this and other STDs, even when symptoms are not present.

### other common s.t.i.s

Other sexually transmitted infections like chlamydia, gonorrhea, bacterial vaginosis and trichomonas commonly occur in women with HIV. Standard treatments are used to treat these conditions. They include antibiotics such as azithromycin (Zithromax) to treat chlamydia or ceftriaxone (Rocephin) to treat gonorrhea. Both bacterial vaginosis and trichomonas are treated with metronidazole (Flagil).

When these infections occur, the vaginal acid level changes, making the area more welcoming to other infections, including HIV. Furthermore, untreated GYN conditions, especially chlamydia and gonorrhea, are common causes of pelvic inflammatory disease and cervicitis (as explained later).



## Cervicitis

Cervicitis is an inflammation of the cervix. Several conditions can lead to cervicitis, including chlamydia, gonorrhea, trichomonas, bacterial vaginosis and cytomegalovirus (CMV). The treatment for cervicitis depends on its cause. If you have mild cervicitis, you may not notice any symptoms. However, when they do occur, they include a pus-like vaginal discharge with an odor, painful intercourse, spotting or bleeding after intercourse, and abdominal or back pain.

## Pelvic inflammatory disease

Pelvic inflammatory disease (PID) is a range of disorders in the upper reproductive tract, including the fallopian tubes, uterus, ovaries and, in advanced stages, the abdominal lining. Common symptoms include chronic, moderate-to-severe pain; tenderness in the abdomen; irregular periods; non-menstrual bleeding; and painful and frequent urinating.

Like other GYN conditions, PID appears to be more common, severe and resistant to treatment in women with HIV, especially those with AIDS. The Centers for Disease Control and Prevention recommends that HIV-infected women who develop PID be followed closely with early hospitalization and IV therapy with a recommended antibiotic regimen, if possible.

## Human papillomavirus

Human papillomavirus (HPV) is a sexually transmitted infection that causes abnormal growth of tissue on the feet, hands, vocal chords, mouth, anus or genitals. Many women do not experience symptoms of HPV. If symptoms are present, they can include itching, burning, slight bleeding, or a slight discharge. HPV is diagnosed by a Pap smear, colposcopy or biopsy (see Screening, page 9). Two kinds of abnormal growth can occur: genital warts or dysplasia.

Genital warts are soft, moist, red or pink swellings. They can develop on the vulva, in or around the vagina or anus, on the cervix or thigh. Dysplasia refers to abnormal changes in the size, shape or appearance of the cells that line the cervix and/or anus. There are several types of HPV that have been linked to cervical cancer. Although dysplasia is not cancer, if left untreated it can turn into cancer.

There are many ways to treat HPV, including surgery, electric current (electro-cautery), chemicals, lasers and the topical cream imiquimod (Aldara). Treatment can be painful and may need to be repeated.

Recent studies caution against using cryotherapy, which involves freezing off the warts or abnormal cells. It can cause normal tissue to heal over deeper areas of dysplasia. In this case, future screenings may appear normal while abnormal tissue grows undetected. Also, many women report that the time after cryotherapy can be very painful.

For women living with HIV, there are additional challenges to consider when diagnosed with HPV. Many women may respond poorly to standard therapies, especially those who have low CD4+ cell counts or HGSIL (see *Reading Pap Smear Results*, page 10). Multiple treatments using different methods may be needed.

## Menstrual changes

Changes in periods are common, for both HIV-positive and -negative women. For HIV-positive women, these changes can include irregular, heavier or lighter periods; worsening of symptoms from premenstrual syndrome (PMS); darkening of menstrual blood; and no periods for more than 90 days (*amenorrhea*). In some studies, amenorrhea was more frequent among women with CD4+ cell counts below 50.

It is not known exactly how HIV disease affects the reproductive system, hormones and menstrual cycles. It is also not known how the female hormones, estrogen and progesterone, interact with the immune system. Studies show that substance abuse, chronic illness and major weight loss can impair the hypothalamus. (The hypothalamus is the part of the brain that controls sex hormone secretion and can affect menstruation.) It is presumed that problems with a woman's immune system due to HIV cause changes in her hormones and results in menstrual problems.

HIV-positive women with changes in menstrual bleeding should seek medical attention to determine its cause. Heavy bleeding or painful periods can be associated with PID. They may also be explained by low platelets (the part of the blood involved in clotting and immune response) from HIV infection.

Your doctor can order a complete blood count (CBC) to determine your platelet count. If your platelet count is low (under 50,000), be sure to review your meds with your doctor. Some medications, in-

---

HIV-POSITIVE WOMEN WITH CHANGES IN MENSTRUAL BLEEDING SHOULD SEEK MEDICAL ATTENTION TO DETERMINE ITS CAUSE.

---

cluding aspirin and ibuprofen, may affect your body's bloodclotting process. Many treatments are used for platelet counts below 20,000, including AZT, corticosteroids, intravenous gammaglobulins and platelet transfusions. Alcohol should also be avoided because it may block platelets and interfere with normal blood clotting.

Anemia is also common among HIV-positive women and can cause fatigue. Heavy and/or frequent menstrual bleeding (*dysmenorrhea*) can cause anemia, or low red blood cells, which can also lead to amenorrhea. While the symptoms of dysmenorrhea and amenorrhea are opposite, they both may be caused by anemia. Anemia can be treated with Epogen (Epoetin alfa).

It is important to check into all possible causes of amenorrhea. These may include anemia, pregnancy, ovarian cysts, opportunistic infections, menopause or other GYN conditions. Other factors may include using some anti-HIV therapy and other meds (like megestrol), street drugs (especially

heroin and marijuana) and poor nutrition. Finally, body weight changes, stress and too much exercise can interrupt the menstrual hormone necessary for normal periods to occur.

There are several ways to ease many of the symptoms that come with common menstrual problems. Cramping before and during periods usually responds to over-the-counter medications like aspirin, ibuprofen (Motrin, Advil) or naproxen (Aleve). Some women choose to treat their symptoms with hormone replacement therapy or herbal and nutritional therapies. Birth control pills that mimic normal menstrual cycles are also used. Finally, reducing your stress, adding vitamins to your diet, exercising regularly and maintaining good nutrition can be included in any treatment plan.



## BACTERIAL VAGINOSIS

A bacterial infection of the vagina that can be sexually transmitted.

**SYMPTOMS** Many women experience no symptoms. If symptoms are present they can include, abnormal vaginal discharge (white or gray), unpleasant odor (can be a strong fish-like odor), burning when urinating, or itching around outside of vagina.

**DIAGNOSIS** A doctor will examine the vagina and may perform lab tests on a sample of vaginal fluid.

**TREATMENT** Antibiotics that can include oral or topical applications of metronidazole (Flagil) or clindamycin (Cleoviv). **Note:** treat all sex partners.

## CERVICITIS

An inflammation of the cervix, caused by an infection such as a sexually transmitted infection or vaginal candidiasis or an allergic reaction to a birth control device, such as a diaphragm or contraceptive spermicide.

**SYMPTOMS** Women may experience no symptoms. If symptoms are present they can include unusual vaginal discharge, abnormal vaginal bleeding, painful intercourse and pain when urinating.

**DIAGNOSIS** A pelvic exam or test for sexually transmitted disease, i.e. gonorrhea or chlamydia.

**TREATMENT** Treatment will depend on the cause of the cervicitis. Once the cause is identified, treatment options can include antibiotics, over-the-counter creams or suppositories.

## CHLAMYDIA

A sexually transmitted infection that is caused by a bacterium (*Chlamydia trachomatis*) and can affect a woman's reproductive organs (cervix, uterus, ovaries and fallopian tubes).

**SYMPTOMS** Many women experience mild to no symptoms. If symptoms are present, they can include unusual vaginal discharge and burning when urinating. More advanced symptoms can include lower abdominal and back pain, nausea, fever, pain during intercourse, pain during sex; bleeding between periods and low-grade fever.

**DIAGNOSIS** Two kinds of laboratory tests are available. One test collects a sample from the infected site; the other test takes a urine sample and sends it to the lab.

**TREATMENT** A doctor will prescribe antibiotics such as azithromycin (Zithromax), or doxycycline (Adoxa, Monodox, Vibramycin) taken orally. Alternative treatments include erythromycin or ofloxacin (Floxin) or levofloxacin (Quixin or Levaquin). **Note:** Treat sexual partners even if they have no symptoms. Avoid sex until treatment is completed. Avoid use of doxycycline, and ofloxacin during pregnancy.

## GONORRHEA

A sexually transmitted disease caused by bacteria (*Neisseria gonorrhoeae*) that can affect a woman's reproductive organs (cervix, uterus, ovaries and fallopian tubes), the anus, mouth and throat.

**SYMPTOMS** Women can experience mild to no symptoms. If symptoms are present, they can include unusual vaginal discharge and burning when urinating. Symptoms of an infection in the anus can include discharge, anal itching, soreness, bleeding and painful bowel movements.

**DIAGNOSIS** Two kinds of lab tests are available. One test collects a sample from the infected site; the other test takes a urine sample and sends it to the lab.

**TREATMENT** Antibiotics, including ceftriaxone (Rocephin), ciprofloxacin (Cipro), ofloxacin (Floxin) or levofloxacin (Quixin or Levaquin). It is common to be coinfected with chlamydia. Alternative treatments may include an intramuscular injection spectinomycin (Trobicin). If chlamydia is not ruled out then a doctor may prescribe azithromycin or doxycycline (see treatments for chlamydia).

## HERPES SIMPLEX VIRUS

A sexually transmitted infection caused by herpes simplex virus (HSV). There are two virus types, II or I. Type II (genital herpes) is sexually transmitted and causes genital sores. Herpes Simplex I causes oral herpes, and is characterized by cold sores or fever blisters on the mouth or eyes.

**SYMPTOMS** Most women may experience mild to severe symptoms. If symptoms are present, they can include a burning or itching sensation, genital blister that break leaving tender ulcers (sores), pain in the legs, butt or genital area, abnormal discharge and lower abdominal pressure. These symptoms can last 2-4 weeks, when they first occur. However, the number of outbreaks and severity tends to decrease over time.

**DIAGNOSIS** Can sometimes be diagnosed by visual exam. Fluid from the sores should be taken to culture (try to grow in a laboratory) to confirm infection. Blood tests can also confirm infection, but not if infection is currently active.

**TREATMENT** There are no treatments that can cure HSV II (genital herpes), however medications are available to shorten and prevent outbreaks. A doctor will prescribe antiviral medications including Acyclovir (Zovirax), Famciclovir (Famvir) or Valacyclovir (Valtrex). The dosage will depend on the number of episodes or outbreaks a person has had.

## HUMAN PAPILLOMAVIRUS

A sexually transmitted viral infection causes the abnormal growth of tissue in the forms of warts or dysplasia (change in the size, shape or appearance of cells). HPV can affect the cervix, vagina, vulva, urethra and/or anus.

**SYMPTOMS** Most women experience mild to no symptoms. If symptoms are present they can include multiple small warts (white spots) on the vagina or around the anus; vaginal discharge; or pain during intercourse.

**DIAGNOSIS** Can often be diagnosed visually, or with a Pap smear, colposcopy or biopsy.

**TREATMENT** Depending on the severity, and the patient's preference, options can include gels or chemicals applied to warts, cryotherapy, or electrocautery (tissue destruction by electric current). Several types and multiple attempts of treatment may be necessary.

## MOLLUSCUM

A non-cancerous skin growth caused by a viral infection and is transmitted by skin contact.

**SYMPTOMS** Small flesh colored or pink dome-shaped growths that can appear on the face, chest, abdomen, arms, groin or butt. They can become red or inflamed and can spread.

**DIAGNOSIS** Usually diagnosed by visual exam. Early biopsy is recommended for atypical lesions.

**TREATMENT** Can include applying liquid nitrogen, electrocautery (tissue destruction by electric current), topical application of cream, gel or antiviral medication, or surgical removal.

## PELVIC INFLAMMATORY DISEASE

A general term that refers to the infection of a woman's internal reproductive organs (fallopian tubes, ovaries and uterus) and is often caused by untreated sexually transmitted infections, particularly chlamydia and gonorrhea. If left untreated it can lead to serious consequences including infertility, ectopic pregnancy, abscess and chronic pelvic pain.

**SYMPTOMS** Symptoms can vary from none to severe. If symptoms are present they can include lower abdominal pain, fever, unusual vaginal discharge, burning when urinating, painful intercourse, irregular menstrual bleeding.

**DIAGNOSIS** PID is difficult to diagnose and there are no tests specific for PID. A pelvic exam or pelvic ultrasound may be performed.

**TREATMENT** A doctor will prescribe antibiotics. A combination of antibiotics

can include cefotetan (Cefotan), cefoxitin (Mefoxin), doxycycline, clindamycin (Cleocin) and gentamicin (Amikin) and is either administered intravenously or orally. Depending on the severity of the infection, hospitalization may be recommended.

## PERIOD PROBLEMS

Abnormal or changing menstrual cycles with a variety of possible causes including: chronic infection like HIV, use of street drugs (i.e. heroine), AIDS-related wasting, menopause, anemia, anti-HIV drugs or sexually transmitted infection.

**SYMPTOMS** Absence or suppression of menstruation (amenorrhea); irregular periods; bleeding between cycles; heavy or frequent bleeding (dismenorrhea); or worsening of symptoms associated with PMS.

**DIAGNOSIS** If you have any of these symptoms, discuss them with your doctor.

**TREATMENT** Treatment is dependent on the cause.

## SYPHILIS

A sexually transmitted infection caused by a bacterium (*Treponema pallidum*). Pregnant women can transmit syphilis to their baby.

**SYMPTOMS** Many women may experience mild to no symptoms for years. Sores can occur mainly on the external genitals, vagina, anus, or in the rectum. If untreated, it progresses through 3 stages: primary (painless ulcers or lesions); secondary (widespread lesions and swollen lymph glands); tertiary (advanced organ and tissue lesions).

**DIAGNOSIS** A doctor can use a microscope to examine the lesions, or conduct a blood test.

**TREATMENT** Standard treatment for syphilis is an injection of Benzathine penicillin. For patients who are allergic to penicillin, doxycycline and tetracycline are prescribed.

## TRICHOMONAS (TRICH)

A sexually transmitted infection caused by a protozoan (*Trichomonas vaginalis*).

**SYMPTOMS** Many women experience mild to no symptoms. If symptoms are present, they can include a frothy, yellow-green vaginal discharge with a strong odor, pain during intercourse and when urinating, irritation and itching around the vagina.

**DIAGNOSIS** A doctor will perform a pelvic exam and lab test on a sample of vaginal fluid.

**TREATMENT** A doctor will prescribe metronidazole (Flagil) taken orally. **Note:** treat all sex partners.

## VAGINAL CANDIDIASIS

*Yeast Infection, Vaginitis, Candida*

Fungal infection of the vulva and vagina. Recurrent infections are the most common initial symptom of HIV infection in women and one of the most common complications experienced.

**SYMPTOMS** Itching with a thick vaginal discharge; burning upon urination; redness and white patches at the sites of infection; pain during sex.

**DIAGNOSIS** Usually first diagnosed by appearance and symptoms. If symptoms do not resolve after initial treatment, lab tests may be performed.

**TREATMENT** Over-the-counter topical creams such as clotrimazole (Gyne-Lotrimin cream); miconazole (Monistat) or butoconazole (Femstat cream). Some treatments such as miconazole and clotrimazole are also available by prescription as suppositories. If the yeast infection does not go away with the cream or suppository, a physician may prescribe a stronger drug such as ketoconazole (Nizoral) or fluconazole (Diflucan) tablets. For women who are pregnant, avoid using oral drugs or suppositories to treat yeast infections, as they can harm the fetus.



## Menopause

Menopause—the end of menstruation—is a natural phase for women. It occurs because of natural changes that happen over time (usually 10–15 years) in a woman’s reproductive system. These changes include the declining production of estrogen. Without enough estrogen, the uterine lining cannot thicken to prepare for an embryo. Therefore, no ovulation occurs (the passing of an egg from the fallopian tubes into the uterus walls) and menstruation stops.

Women usually experience menopause between the ages of 38–58, and most enter it around the age of 50. There’s some evidence that women with HIV may experience menopause earlier. This may be due to many factors such as anemia, lower hormone production, chronic illness, weight loss, anti-HIV drugs, street drugs and smoking. However, the symptoms of menopause appear to be the same for both HIV-positive and -negative women. They include heavier, irregular or missed periods; hot flashes; vaginal dryness; and other changes of the vagina.

Many women undergo hormone replacement therapy (HRT, see box at right) in order to replace the estrogen lost during menopause. As with any therapy, HRT has its risk and benefits. For women living with HIV, there are still many questions as to the impact of HRT. Unfortunately, there’s not enough research yet to point to the dangers or benefits of HRT in women with HIV.

## drug interactions

### Interactions between anti-HIV drugs and oral contraceptives

Several anti-HIV drugs interfere with the way the body processes oral contraceptives (OCs). The most common OC is called ethinyl-estradiol (estrogen + progesterone). The following is a list of known drug interactions. If you take any of the anti-HIV drugs below and use an OC, talk with your doctor and consider using another method of birth control.

- **INDINAVIR (Crixivan)** may increase ethinyl-estradiol levels in the blood.
- **NEVIRAPINE (Viramune)** may decrease ethinyl-estradiol levels in the blood, making OC less effective; increase OC dose or another method of birth control recommended.
- **NELFINAVIR (Viracept)** may decrease ethinyl-estradiol levels in the blood, making OC less effective; increase OC dose or another method of birth control recommended.
- **RITONAVIR (Norvir)** may decrease ethinyl-estradiol levels in the blood, making OC less effective; increase OC dose or another method of birth control recommended.
- **EFAVIRENZ (Sustiva)** may increase ethinyl-estradiol levels in the blood.

## the use of h.r.t.

Below are both the benefits and risks associated with HRT use. Remember, the bottom line is that this is your decision, and the best one for you may differ from someone else’s. This does not make one right or wrong. A decision to start HRT or not is an individual one and one you can make in your own time.



- Relieves symptoms of menopause including hot flashes, night sweats and vaginal dryness.
- Reduces the risk of osteoporosis.
- May reduce the risk of heart disease.
- May help to improve memory.



- Can have some unpleasant side effects like bloating, irritability, breast tenderness, cramping and sometimes spotting or return of your monthly periods for a few months or years.
- May increase the risk for breast cancer—long-term use appears to pose the greatest risk.
- An increase in the risk of developing blood clots.



## Screening

Since women with HIV have high rates and generally more severe cases of GYN conditions, it's important to get frequent and regular screening (see page 10 for more information).



### PAP SMEAR

A Pap smear is a standard part of the routine GYN exam. This is a test in which a doctor will collect cells from your cervix. A Pap smear can detect any inflammation, and in most cases predict abnormalities in cervical cells. For women living with HIV, if your CD4+ cell count is below 300 or has been dropping, it is suggested that you have a Pap smear every six months. If you have an abnormal Pap smear, further evaluation with a *colposcopy* is suggested.

The Pap smear usually may cause a sensation that feels like pressure on the cervix. However, when there is tenderness or swelling, even a Pap smear can cause pain and discomfort. While the Pap smear is fairly non-invasive, some experts are beginning to question its usefulness. This is especially true when it's used to screen for cervical cancer in women with HIV.

The problem with Pap smears is that 15–30% of the results that come

back as “normal” are, upon doing further tests, actually abnormal. These are called false-negative results. In other words, abnormal cell growth that may need further examination or immediate treatment may pass undetected. This problem has led some healthcare providers to suggest colposcopy as a more accurate procedure, especially for HIV-positive women when early detection of GYN problems is critical.

### COLPOSCOPY

A solution of diluted vinegar is applied to the cervix/anus to remove the mucus and highlight the abnormal cells. Using a light and a microscope (called a colposcope, or anoscope if they're looking at anal tissue), the doctor can look at the tissue closely. The vinegar makes the abnormal cells white and the normal cells appear pink. Lesions, warts and inflammation are usually visible during the colposcopy, however it is difficult to

determine if the changes are mild or severe. If abnormal cells are seen a biopsy is usually done.

This procedure may cause discomfort, however, it usually isn't painful. A colposcopy needs to be done by a specialist. It may also be done with a biopsy, there is a risk of infection and bleeding.

### BIOPSY

A biopsy is when a small amount of tissue is taken from the area where abnormal cells are found. A biopsy can tell the difference between a mild lesion and a severe lesion. A biopsy can be uncomfortable and painful. Some women experience mild bleeding after the procedure.

REGULAR EXAMS ARE CRUCIAL SINCE MANY GYN CONDITIONS LACK OBVIOUS SYMPTOMS AND CAN PERSIST UNDETECTED.

## some final words on gyn conditions

Many GYN problems that HIV-positive women experience also affect negative women. For HIV-positive women, GYN conditions tend to be more frequent and are more serious and difficult to treat. GYN conditions may further damage the immune system. Therefore, it's very important that your healthcare provider monitor, diagnose and treat these conditions as early as possible.

If your healthcare provider isn't skilled at screening and diagnosing GYN conditions, it's important that you ask for a referral to a specialist, like a *gynecologist*. If you go to a

specialist, be sure that your HIV doctor is aware of results from GYN screening tests and any treatments you might be on for GYN conditions. Make sure that your gynecologist is aware of what medications you are taking for other conditions.

Regular exams, like Pap smears and colposcopies, are crucial since many GYN conditions lack obvious symptoms and can persist undetected. Detection and treatment at these early stages is a critical step in preventing a GYN condition from progressing. It's just as important to monitor your own GYN health and advocate for yourself.

## Standard GYN Screening for Women

EXAM	RESULT	FOLLOW-UP
Pap smear	Normal	Pap every 12 months.
Pap smear	Inflammation	Pap every 3 months.
Pap smear	Abnormal cells (dysplasia)	Colposcopy, biopsy. Pap every 3 months.

NOTE: For women with symptomatic HIV infection and/or a CD4+ cell count below 200, a Pap smear is suggested every 6 months.

## Reading the Pap Smear Results

There are two methods that have been used to read the results from Pap smears. Most labs use the Bethesda System. Results are divided into categories based on the changes in the size and shape of the cells. Some labs may use another system to report the results called the Cervical Intraepithelial Neoplasia (CIN) System. In this system the degree of cell abnormality is assigned a number. Below is a chart explaining what the results for the Bethesda and CIN Systems mean.

Bethesda System	CIN System	What does this mean?
Negative for Squamous Intraepithelial Lesions or Dysplasia	Not Applicable	There are no abnormal cell changes detected.
Atypical (unusual) Squamous Cells of Undetermined Significance (ASCUS) <i>ASC-H is a new category added which means atypical squamous cells and high-grade lesions cannot be ruled out.</i>	Atypia	There may be inflammation in the cervix; however, it cannot be determined if the cells are normal or abnormal. Suggest follow-up with a colposcopy.
Low Grade Squamous Intraepithelial Lesions (LGSIL)	CIN I	Mild cell abnormalities ( <i>dysplasia</i> ) are present on the surface of the cervix. For women living with HIV, treatment is not considered standard; however, careful monitoring is strongly suggested.
High Grade Squamous Intraepithelial Lesions (HGSIL)	CIN II/ CIN III	Moderate to severe dysplasia and/or precancerous lesions. Treatment is recommended.

## Understanding your immune system

Your immune system is your body's defense against infections and diseases. If a germ—like bacteria, fungus or virus—gets into your body, a variety of cells respond by fighting off and killing the organism, or at least keeping it in check so that it doesn't cause disease. Understanding this response helps to better understand HIV, GYN conditions and other diseases.

The immune system plays an important role in controlling symptoms of infection. In fact, you can have an infection without having a disease. A good example of this is herpes. Many are infected with the virus, but only when it becomes active and sores appear does someone actually have the disease.

In this case, acyclovir helps the immune system keep the herpes virus as inactive as possible. However, drugs are not a substitute for the immune system. Generally, drugs work with the immune system to prevent or treat disease. When a person has a weakened immune system, a drug alone will not work as well in controlling the disease.

In some ways, HIV is similar to herpes in that you can be infected with HIV and not have symptoms. The difference, however, is that HIV is slowly attacking and destroying your immune system. It destroys important cells that help to control diseases. So even though you may feel good and have no symptoms of HIV disease, a doctor might recommend you start anti-HIV meds. They can help keep HIV from severely damaging your immune system and potentially from getting symptoms of HIV disease.

So what does this have to do with GYN health? Getting more GYN conditions could be a sign that your immune system is weakening and is beginning to lose its ability to keep viruses, fungi and bacteria under control in your vagina and genital tract. Repeated symptoms, like yeast infections or skin problems, tell you that your immune system is damaged and the infections only make the situation worse. Preserving your immune system before these conditions occur is critical.

Therefore, it's also important to treat the real underlying problem—a weakened immune system. If HIV

continues to damage the immune system, the GYN conditions and many other infections will become more of a problem.

Intervening when complications do occur by seeking treatment and care for all of HIV disease, including GYN conditions, is key to preserving, promoting and enhancing your immune health. Taking care of and treating your HIV disease can rebuild your immune system, making it better able to fight off infections in the long-term. It's never too early to take charge of your health! Knowing and understanding what your body is telling you is the first step!



### Stress and how it affects your immune system

When people are under stress they may develop more infections, common colds, herpes outbreaks, yeast infections or other diseases. Why does this happen? It's partly because the chemicals released in your body when you experience stress actually weaken your immune system. As well, the organ that produces important immune cells, called the thymus, becomes damaged.

In other words, both the cells as well as the source for new cells become weakened by these chemicals. Finding ways to ease stress—such as going for a walk, talking about your feelings with a close friend, taking a bath, doing meditation or getting a massage—can help to strengthen your immune system.

The ways that stress affects other parts of our lives can also weaken the immune system. Sometimes when we feel stressed out we also get depressed, don't eat regularly, don't sleep well or find it difficult to take care of ourselves on a daily basis. All of these can further weaken your immune system.

Understanding health as it relates to your whole body—and including stress reduction, improved diet, healthful exercise, normal sleep patterns and steps to improve your general well-being—are important. Managing your HIV disease is not just about anti-HIV drugs, viral load and GYN conditions. It's a broader picture about many parts of your life!

# Resources

---

Project Inform provides a treatment resource guide, including national publications, hotlines, web sites and education programs. Call our toll-free National HIV/AIDS Treatment Infoline at 1-800-822-7422 and request *Guide to HIV/AIDS Related Resources*. We provide many other publications including *Day One* and *Making Decisions About Therapy*. In addition, we publish *PI Perspective* which provides updates on advances in HIV research and treatment, advocacy and policy issues. These and other materials are free of charge to all those who need them. For more information, contact our Infoline or visit [www.projectinform.org](http://www.projectinform.org). The following list contains national resources. For local and regional resources, contact your local AIDS service organization.

## WOMEN SPECIFIC PROGRAMS AND NEWSLETTERS

---

### Women Alive

Women Alive is a national treatment-focused, non-profit organization by and for women living with HIV/AIDS. They publish a quarterly newsletter and are active in policy and treatment issues, as well as providing a range of services for women living with HIV.

1566 Burnside Avenue  
Los Angeles, CA 90019  
213-965-1564 or 1-800-554-4876  
[www.women-alive.org](http://www.women-alive.org)

### WORLD (Women Organized to Respond to Life-threatening Diseases)

WORLD is an information and support network for women with HIV. WORLD has several programs for HIV-positive women and their families.

414 Thirteenth Street, 2nd Floor  
Oakland, CA 94612  
510-986-0340  
[www.womenhiv.org](http://www.womenhiv.org)

### Iris House

Iris House provides services to women and their families who are infected and affected by HIV/AIDS. Services include prevention, case management, nutrition, social support, child care, education and information, housing and a variety of health and wellness services.

Main Office  
2348 Adam Clayton Powell, Jr. Blvd.  
New York, NY, 10030  
646-548-0100 fax 646-548-0200  
EMAIL: [irishouse1@aol.com](mailto:irishouse1@aol.com)

### SisterLove

SisterLove is a reproductive and sexual health organization focusing on HIV/AIDS, providing a host of educational, prevention and support services to women and their families in the United States and around the world.

PO Box 10558  
1285-A Ralph David Abernathy Blvd, SW  
Atlanta, Georgia 30310  
404-753-7733  
[www.sisterlove.org](http://www.sisterlove.org)

## OTHER RESOURCES FOR WOMEN

---

### AIDS Community Research Initiative of America (ACRIA)

ACRIA is a non-profit community-based AIDS research and treatment education center working in collaboration with recognized leaders in AIDS research and treatment, primary care providers and people living with HIV/AIDS.

230 W 38th Street, 17th Floor  
New York NY 10018  
212-924-3934  
[www.criany.org](http://www.criany.org)

## INFORMATION ON THE INTERNET FOR HIV-POSITIVE WOMEN

---

### AIDSmeds.com

AIDSmeds.com is dedicated to providing people living with HIV the necessary information they need to make empowered treatment decisions.

[www.aidsmeds.com](http://www.aidsmeds.com)

### National Women's Health Information Center

The Center was established in 1991 within the US Department of Health and Human Services and coordinates the efforts of all the HHS agencies involved in women's health. The Center works to improve the health and well-being of women and girls in the United States.

[www.4woman.gov](http://www.4woman.gov)

### National Women's Health Resource Center

Since the late 1980s, the Center has helped millions of women educate themselves about the health topics that concern them the most. The organization, dedicated to helping women make informed decisions about their health, encourages women to embrace healthy lifestyles to promote wellness and prevent disease.

[www.healthywomen.org](http://www.healthywomen.org)

### Project Inform

Project Inform is a national HIV treatment information and advocacy organization. A subsection of its website is devoted to women-specific issues.

[www.projectinform.org/pub/ww\\_index.html](http://www.projectinform.org/pub/ww_index.html)

### The Well Project

The website includes fact sheets, profiles of women living with HIV, discussion boards, descriptions of HIV-related events/conferences, and how-to guides to assist those working in HIV care.

[www.wellproject.org](http://www.wellproject.org)