



LIVING WELL

A Guide for
Newly
Diagnosed
Clients





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PREFACE

If you are reading this guide, you probably have been recently diagnosed with HIV. It is also possible that you have been diagnosed for some time but are reading this guide to get more information about your health status. Whichever situation is true for you, the important thing is that you are taking the opportunity to gather tools that can help you learn more about HIV. Living with HIV may mean making some difficult decisions about your health, and having more information will assist you in getting the best health care possible.

As you are reading this guide, remember that this guide covers basic information that is intended to provide you with some knowledge that can give you an opportunity to be more active in your medical care. It is suggested that you use this information to begin to ask questions of your physician and other health care providers. This guide should not replace advice from your medical provider regarding available medical treatment. It should encourage you to seek quality medical treatment and care.

Although it is good for you to read this entire guide, the table of contents will allow you to go directly to the topics that you want to know about the most. Thank you for taking interest in this guide and your health!

WHAT IS HIV/AIDS?

This section will discuss the difference between human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), and give you a basic definition of each term that will allow you to understand other information covered later in this guide. This section will also discuss some common symptoms of HIV infection. Remember that every person's body is different and may respond differently to an infection or illness. Therefore, not all people experience the same symptoms. However, the symptoms discussed will be the most frequently reported symptoms that people infected with HIV have experienced.

These definitions will help you to see that having HIV does not necessarily mean that you have AIDS. The time between being newly infected with HIV to the onset of AIDS varies greatly, but for about half of the people with HIV it is approximately 10 years.

What is HIV?

HIV stands for human immunodeficiency virus. It is the virus that can lead to acquired immunodeficiency syndrome if not treated. Unlike some other viruses, the human body can't get rid of HIV completely, even with treatment. So once you get HIV, you have it for life.

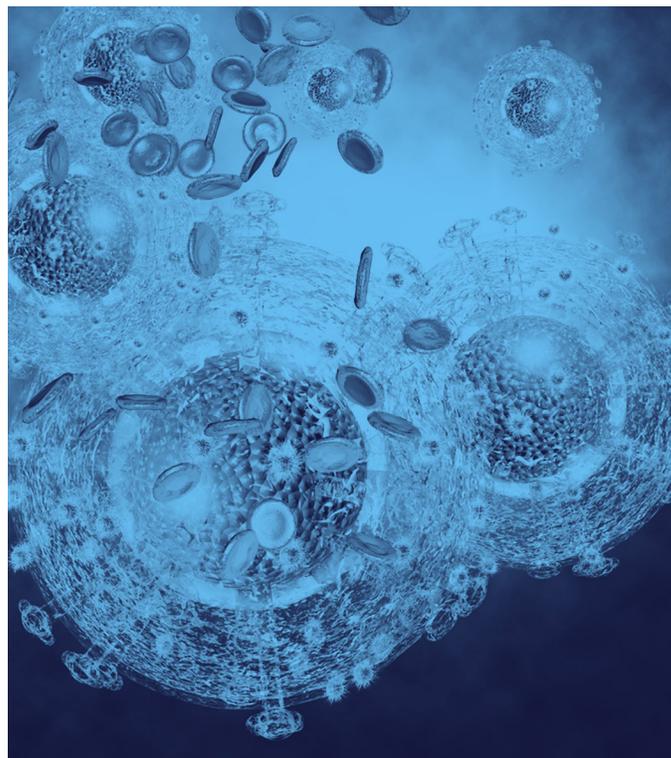
HIV attacks the body's immune system, specifically the CD4 cells (T cells), which help the immune system fight off infections. Untreated, HIV reduces the number of CD4 cells (T cells) in the body, making the person more likely to get other infections or infection-related cancers. Over time, HIV can destroy so many of these cells that the body can't fight off infections and disease. These opportunistic infections or cancers take advantage of a very weak immune system and signal that the person has AIDS, the last stage of HIV infection.

No effective cure currently exists, but with proper medical

care, HIV can be controlled. The medicine used to treat HIV is called combined antiretroviral therapy (cART). If taken the right way, every day, this medicine can dramatically prolong the lives of many people infected with HIV, keep them healthy, and greatly lower their chance of infecting others. Before the introduction of cART in the mid-1990s, people with HIV could progress to AIDS in just a few years. Today, someone diagnosed with HIV and treated before the disease is far advanced can live nearly as long as someone who does not have HIV.

What is AIDS?

AIDS is the most severe phase of HIV infection. People with AIDS have such badly damaged immune systems that they get an increasing number of severe illnesses, called opportunistic infections.



Some Common Symptoms of HIV Infection

The symptoms of HIV vary, depending on the individual and what stage of the disease you are in: the early stage, the clinical latency stage, or AIDS (the late stage of HIV infection). Following are the symptoms that some individuals may experience in these three stages. Not all individuals will experience these symptoms.

Early Stage of HIV

About 40 percent to 90 percent of people have flu-like symptoms within 2-4 weeks after HIV infection. Other people do not feel sick at all during this stage, which is also known as acute HIV infection. Early infection is defined as HIV infection in the past six months (recent) and includes acute (very recent) infections. Flu-like symptoms can include:

- Fever
- Chills
- Rash
- Night sweats
- Muscle aches
- Sore throat
- Fatigue
- Swollen lymph nodes
- Mouth ulcers

These symptoms can last anywhere from a few days to several weeks. During this time, HIV infection may not show up on some types of HIV tests, but people who have it are highly infectious and can spread the infection to others.

You should not assume you have HIV just because you have any of these symptoms. Each of these symptoms can be caused by other illnesses. And some people who have HIV do not show any symptoms at all for 10 years or more. The only way to know for sure if you have HIV is to get tested (see section on Testing for HIV).

Clinical Latency Stage

After the early stage of HIV infection, the disease moves into a stage called the clinical latency stage (also called “chronic HIV infection”). During this stage, HIV is still active but reproduces at very low levels. People with chronic HIV infection may not have any HIV-related symptoms, or only mild ones.

For people who aren't taking antiretroviral therapy medicine to treat HIV, this period can last a decade or longer, but some may progress through this phase faster. People who are taking medicine to treat HIV, and who take their medications the right way, every day, may be in this stage for several decades because treatment helps keep the virus in check.

It's important to remember that people can still transmit HIV to others during this phase even if they have no symptoms, although people who are on cART and stay virally suppressed (having a very low level of virus in their blood) are much less likely to transmit HIV than those who are not virally suppressed.

Progression to AIDS

If you have HIV and you are not on cART, eventually the virus will weaken your body's immune system and you will progress to AIDS (acquired immunodeficiency syndrome), the late stage of HIV infection. Symptoms can include:

- Rapid weight loss
- Recurring fever or profuse night sweats
- Extreme and unexplained tiredness
- Prolonged swelling of the lymph glands in the armpits, groin, or neck
- Diarrhea that lasts for more than a week
- Sores of the mouth, anus, or genitals
- Pneumonia
- Red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids
- Memory loss, depression, and other neurologic disorders

Each of these symptoms can also be related to other illnesses. So the only way to know for sure if you have HIV is to get tested.

Many of the severe symptoms and illnesses of HIV disease come from the opportunistic infections that occur because your body's immune system has been damaged.

SOURCE: www.HIV.gov

HOW IS HIV SPREAD?

Since the early years of HIV disease there have been many myths about how HIV is spread. Many of these myths stem from people not being informed about how the virus is actually spread from one person to another. Many of these myths are about which body fluids spread HIV. As you encounter people with or without HIV, you may be asked questions about how HIV is spread. The following sections will help to equip you with some factual information about how HIV is and is not spread from one person to another. Having this information can assist you in talking to close friends or family about HIV, and dismiss some myths they may believe about how HIV is spread.

Ways HIV is Spread

You can get or transmit HIV only through specific activities. Most commonly, people get or transmit HIV through sexual behaviors and needle or syringe use. Only certain body fluids — blood, semen (cum), pre-seminal fluid (pre-cum), rectal fluids, vaginal fluids, and breast milk — from a person who has HIV can transmit HIV. These fluids must come in contact with a mucous membrane or damaged tissue or be directly injected into the bloodstream (from a needle or syringe) for transmission to occur. Mucous membranes are found inside the rectum, vagina, penis, and mouth.

In the United States, HIV is spread mainly by:

- Having anal or vaginal sex with someone who has HIV without using a condom or taking medicines to prevent or treat HIV.
 - For the HIV-negative partner, receptive anal sex (bottoming) is the highest-risk sexual behavior, but you can also get HIV from insertive anal sex (topping).
 - Either partner can get HIV through vaginal sex, though it is less risky than receptive anal sex.
- Sharing needles or syringes, rinse water, or other equipment (works) used to prepare drugs for injection with someone who has HIV. HIV can live in a used needle up to 42 days depending on temperature and other factors.

Less commonly, HIV may be spread from:

- Mother to child during pregnancy, birth, or breastfeeding. Although the risk can be high if a mother is living with HIV and not taking medicine, recommendations to test all pregnant women for HIV and start HIV treatment immediately have lowered the number of babies who are born with HIV.
- A stick with an HIV-contaminated needle or other sharp object. This is a risk mainly for health care workers.

In extremely rare cases, HIV has been transmitted by:

- Oral sex — putting the mouth on the penis (fellatio), vagina (cunnilingus), or anus (rimming). In general, there's little to no risk of getting HIV from oral sex. But transmission of HIV, though extremely rare, is theoretically possible if an HIV-positive man ejaculates in his partner's mouth during oral sex.
- Receiving blood transfusions, blood products, or organ/tissue transplants that are contaminated with HIV. This was more common in the early years of HIV, but now the risk is extremely small because of rigorous testing of the US blood supply and donated organs and tissues.
- Eating food that has been pre-chewed by an HIV-infected person. The contamination occurs when infected blood from a caregiver's mouth mixes with food while chewing. The only known cases are among infants.
- Being bitten by a person with HIV. Each of the very small number of documented cases has involved severe trauma with extensive tissue damage and the presence of blood. There is no risk of transmission if the skin is not broken.
- Contact between broken skin, wounds, or mucous membranes and HIV-infected blood or blood-contaminated body fluids.
- Deep, open-mouth kissing if both partners have sores or bleeding gums and blood from the HIV-positive partner gets into the bloodstream of the HIV-negative partner.

Body Fluids that Spread HIV

The person-to-person spread of HIV is called **HIV transmission**. HIV is transmitted only in certain body fluids from a person infected with HIV:

- Blood
- Semen/Pre-ejaculate
- Rectal Fluid
- Vaginal Fluid
- Breast Milk

HIV transmission is only possible if these fluids come in contact with a mucous membrane or damaged tissue or are directly injected into the bloodstream (from a needle or syringe). Mucous membranes are found inside the rectum, the vagina, the opening of the penis, and the mouth. HIV can also spread from an HIV-infected woman to her child during pregnancy, childbirth (also called labor and delivery), or breastfeeding. This spread of HIV is called mother-to-child transmission of HIV.

SOURCE: aidsinfo.nih.gov

Body Fluids that Do Not Spread HIV

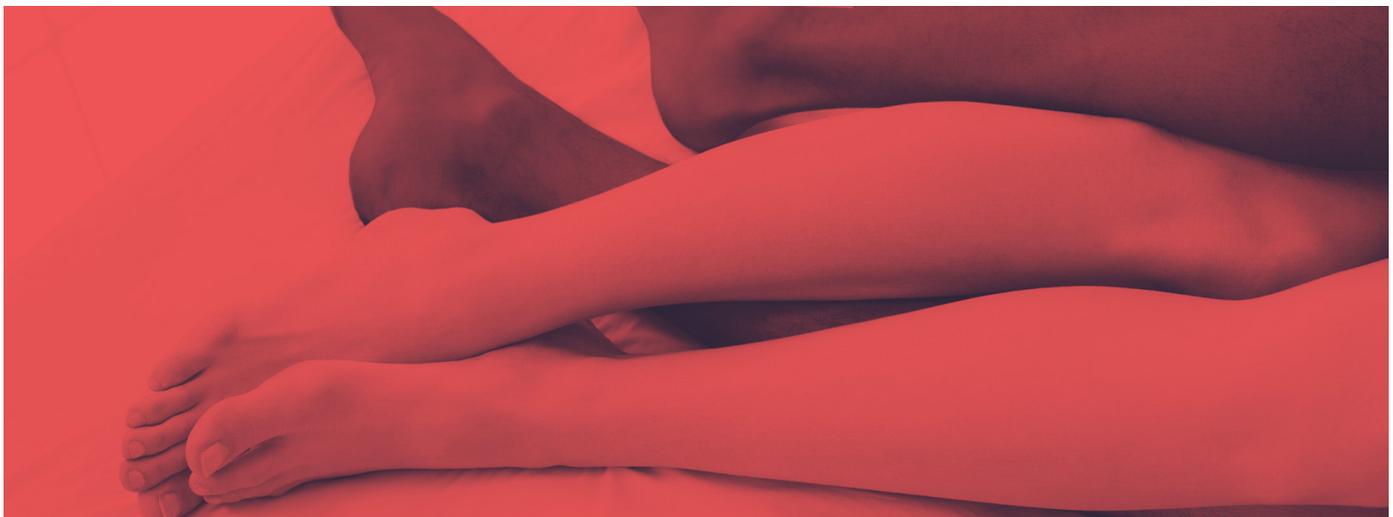
- Saliva
- Tears
- Sweat
- Urine
- Feces
- Mucus
- Vomit

Ways HIV is Not Spread

You can't get HIV from casual contact with a person infected with HIV. There is no evidence that HIV is spread by:

- Contact with saliva, tears, or sweat
- Shaking hands
- Hugging
- Sharing food utensils
- Sharing linens, like towels and bedding
- Swimming in the same pool
- Normal contact children experience in schools and homes
- Using the same telephone
- Using the same toilet seats
- Bites from insects or other animals
- Pets

SOURCE: nichd.nih.gov



HIV 101

Without treatment, HIV (human immunodeficiency virus) can make a person very sick and even cause death. Learning the basics about HIV can keep you healthy and prevent transmission.

HIV Can Be Transmitted By



Sexual Contact



Sharing Needles to Inject Drugs



Mother to Baby during pregnancy, birth, or breastfeeding

HIV Is **NOT** Transmitted By



Air or Water



Saliva, Sweat, Tears, or Closed-Mouth Kissing



Insects or Pets



Sharing Toilets, Food, or Drinks

Protect Yourself From HIV

- Get tested at least once or more often if you are at risk.
- Use condoms the right way every time you have anal or vaginal sex.
- Choose activities with little to no risk like oral sex.
- Limit your number of sex partners.
- Don't inject drugs, or if you do, don't share needles or works.



- If you are at very high risk for HIV, ask your health care provider if pre-exposure prophylaxis (PrEP) is right for you.
- If you think you've been exposed to HIV within the last 3 days, ask a health care provider about post-exposure prophylaxis (PEP) right away. PEP can prevent HIV, but it must be started within 72 hours.
- Get tested and treated for other STDs.



Keep Yourself Healthy And Protect Others If You Are Living With HIV

- Find HIV care. It can keep you healthy and greatly reduce your chance of transmitting HIV.
- Take your medicines the right way every day.
- Stay in HIV care.



- Tell your sex or drug-using partners that you are living with HIV. Use condoms the right way every time you have sex, and talk to your partners about PrEP.
- Get tested and treated for other STDs.



For more information please visit www.cdc.gov/hiv

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Division of HIV/AIDS Prevention



WHAT IS MY IMMUNE SYSTEM?

Your immune system is a complex network of cells, tissues, and organs that work together to defend against germs. It helps your body to recognize these “foreign” invaders such as viruses, bacteria, parasites and fungi. The immune system defends the body in a way that prevents illness and infection. It also acts to repair and heal the body when an infection or damage to the body occurs. Your immune system does many things daily to keep your body healthy and well. This page explains how CD4 cells, often called T cells, help the immune system fight off infections. HIV reduces the number of CD4 cells in the body when left untreated. This makes it harder for the body to fight off infections and some other diseases.

What are CD4 Cells?

CD4 cells are white blood cells that play an important role in the immune system. Your CD4 cell count gives you an indication of the health of your immune system — your body’s natural defense system against pathogens, infections and illnesses. CD4 cells are sometimes also called T-cells, T-lymphocytes, or helper cells.

Your CD4 cell count is the number of blood cells in a cubic millimeter of blood (a very small blood sample). It is not a count of all the CD4 cells in your body. A higher number indicates a stronger immune system.

- The CD4 cell count of a person who does not have HIV can be anything between 500 and 1500.
- People living with HIV who have a CD4 count over 500 are usually in pretty good health.
- People living with HIV who have a CD4 cell count below 200 are at high risk of developing serious illnesses. HIV treatment is recommended for all people living with HIV. It is especially important for people with low CD4 counts.

count will fall over time. The lower the CD4 cell count, the greater the damage to the immune system and the greater the risk of illness.

What is Viral Load?

Viral load is the term used to describe the amount of HIV in a body fluid. Viral load tests measure the amount of HIV in a small sample of blood. This is one of the tests that your HIV clinic will carry out regularly to monitor your health and help inform your decisions about treatment. The result of a viral load test is described as the number of copies of HIV’s genetic material (RNA) per milliliter (copies/ml). Normally your doctor will just give your viral load as a number.

There are a number of different viral load tests in use, each using a slightly different technique to measure the number of HIV particles in the blood. All the tests are equally reliable at determining if a viral load is high, medium or low. However, each test has a limit below which it cannot reliably detect HIV. This is referred to as viral load being undetectable.

Undetectable viral load is usually defined as below 50 copies/ml. Until recently, this was the lowest detectable level for tests most commonly used in routine viral load monitoring. There are now some ultra-sensitive tests that can measure below 20 copies/ml.

As well as reducing viral load in your blood, HIV treatment also reduces viral load in other body fluids to between 0 and 50 copies/ml. Having an undetectable viral load is a good thing, helping your immune system to recover and stay strong.

If you have HIV and do not take HIV treatment, your CD4

SOURCE: www.AIDSMAP.com

TESTING FOR HIV

How Can I Tell if I Have HIV?

You cannot rely on symptoms to tell whether you have HIV. The only way to know for sure if you have HIV is to get tested. Knowing your status is important because it helps you make healthy decisions to prevent getting or transmitting HIV.

However, if you think you may have been exposed to HIV and could be in the early stage of HIV infection, get an HIV test. Most HIV tests detect antibodies (proteins your body makes as a reaction against the presence of HIV), not HIV itself. But it can take a few weeks or longer for your body to produce these antibodies. Some places use HIV tests that can detect acute and recent infections, but others do

You can't rely on symptoms to tell if you have HIV. The only way to know for sure is to get tested.

not. So be sure to let your testing site know if you think you may have been recently infected with HIV. Tests that can detect acute infection look for HIV RNA or p24 antigen. Most doctors and clinics that provide a

full range of health care services can do this test, but some places that only do HIV testing may not have it, so you may want to contact the site before you go to ask if they can test you for acute HIV infection.

After you get tested, it's important to find out the result of your test. If you're HIV-positive, you should see a doctor and start HIV treatment as soon as possible. You are at high risk of transmitting HIV to others during the early stage of HIV infection, even if you have no symptoms. For this reason, it is very important to take steps to reduce your risk of transmission. If you're HIV-negative, explore HIV-prevention options, like pre-exposure prophylaxis (PrEP), that can help you stay negative.

SOURCE: www.HIV.gov

What Can I Expect When I Go In for an HIV Test?

If you take a test in a health care setting, when it's time to take the test, a health care provider will take your sample (blood or oral fluid), and you may be able to wait for the results if it's a rapid HIV test. If the test comes back negative, and you haven't had an exposure for three months, you can be confident you're not infected with HIV.

If your HIV test result is positive, you may need to get a follow-up test to be sure you have HIV.

Your health care provider or counselor may talk with you about your risk factors, answer questions about your general health, and discuss next steps with you, especially if your result is positive.

How Soon After Exposure to HIV Can an HIV Test Detect If I Am Infected

No HIV test can detect HIV immediately after infection. If you think you've been exposed to HIV, talk to your health care provider as soon as possible.

The time between when a person gets HIV and when a test can accurately detect it is called the *window period*. The window period varies from person to person and also depends upon the type of HIV test.

- Most HIV tests are antibody tests. Antibodies are produced by your immune system when you're exposed to viruses like HIV or bacteria. HIV antibody tests look for these antibodies to HIV in your blood or oral fluid.
- The soonest an antibody test will detect infection is three weeks. Most (approximately 97 percent), but not all, people will develop detectable antibodies within three to 12 weeks (21 to 84 days) of infection.



- A combination, or fourth-generation, test looks for both HIV antibodies and antigens. Antigens are foreign substances that cause your immune system to activate. The antigen is part of the virus itself and is present during acute HIV infection (the phase of infection right after people are infected but before they develop antibodies to HIV).
- Most, but not all people, will make enough antigens and antibodies for fourth-generation or combination tests to accurately detect infection two to six weeks (13 to 42 days) after infection.
- A nucleic acid test (NAT) looks for HIV in the blood. It looks for the virus and not the antibodies to the virus. This test is very expensive and not routinely used for screening individuals unless they recently had a high-risk exposure or a possible exposure with early symptoms of HIV infection.
- Most, but not all people, will have enough HIV in their

blood for a nucleic acid test to detect infection one to four weeks (7 to 28 days) after infection.

Ask your health care provider about the window period for the test you're taking. If you're using a home test, you can get that information from the materials included in the test's package. If you get an HIV test within three months after a potential HIV exposure and the result is negative, get tested again in three more months to be sure.

If you learned you were HIV-negative the last time you were tested, you can only be sure you're still negative if you haven't had a potential HIV exposure since your last test. If you're sexually active, continue to take actions to prevent HIV, like using condoms the right way every time you have sex and taking medicines to prevent HIV if you're at high risk.

HIV TREATMENT

What Are the Treatments for HIV?

There are currently more than 30 drugs approved to fight HIV. However, these drugs:

- Do not cure HIV or AIDS
- Do not stop the virus from spreading from person to person, although they do make transmission less likely

HIV drugs keep the virus from multiplying in the body. This helps to keep people with an HIV infection from developing AIDS and helps them live longer, healthier lives. However, it is still possible to transmit the virus to others, and people must continuously take the antiretroviral drugs to stay healthy.

People with AIDS or advanced HIV often get other illnesses due to their weakened immune systems. There are treatments available for many of these other illnesses.

HIV treatment involves taking medicines that slow the progression of the virus in your body. HIV is a type of virus called a retrovirus, and the drugs used to treat it are called antiretrovirals (ARV). These drugs are always given in combination with other ARVs; this combination therapy is called combined antiretroviral therapy (cART). Many cART drugs have been used since the mid-1990s and are the reason why the annual number of deaths related to AIDS has dropped over the past two decades.

Although a cure for HIV does not yet exist, cART can keep you healthy for many years and greatly reduces your chance of transmitting HIV to your partner(s) if taken consistently and correctly. cART reduces the amount of virus (or viral load) in your blood and body fluids. cART is recommended for all people living with HIV, regardless of how long they've had the virus or how healthy they are.

Why Is Treatment Important?

To protect your health, it is important to get on and stay on HIV treatment. HIV treatment is important because it helps your body fight HIV. You may hear the phrase "treatment adherence," which means staying on your treatment plan. Most people living with HIV who don't get treatment eventually develop AIDS.

If left untreated, HIV attacks your immune system and can allow different types of life-threatening infections and cancers to develop. If your CD4 cell count falls below a certain level, you are at risk of getting an opportunistic infection. These are infections that don't normally affect people with healthy immune systems but can infect people with immune systems weakened by HIV infection. Your health care provider may prescribe medicines to prevent certain infections.

HIV treatment is most likely to be successful when you know what to expect and are committed to taking your medicines exactly as prescribed. Working with your health care provider to develop a treatment plan will help you learn more about HIV, manage it effectively, and make decisions that help you live a longer, healthier life. HIV treatment will also greatly reduce your chance of transmitting HIV to your partner(s) if taken consistently and correctly. Learn more about HIV treatment as prevention.



When Should I Start Treatment?

Treatment guidelines from the U.S. Department of Health and Human Services recommend that a person living with HIV begin combined antiretroviral therapy (cART) as soon as possible after diagnosis. Starting cART slows the progression of HIV and can keep you healthy for many years. If you delay treatment, the virus will continue to harm your immune system and put you at higher risk for developing opportunistic infections that can be life threatening.

Does cART Cause Side Effects?

Like most medicines, combined antiretroviral therapy (cART) can cause side effects. However, not everyone experiences side effects from cART. The HIV medications used today have fewer side effects, fewer people experience them, and they are less severe than in the past. Side effects can differ for each type of cART medicine and from person to person. Some side effects can occur once you start a medicine and may only last a few days or weeks. Other side effects can start later and last longer. If you experience side effects that are severe or make you want to stop taking your HIV medication, talk to your health care provider or pharmacist before you miss any doses or stop taking the medication. Skipping doses or starting and stopping medication can lead to drug resistance, which can harm your health and limit your future treatment options.

Some side effects of cART that are most commonly reported include:

- Nausea and vomiting
- Rash
- Diarrhea
- Dizziness
- Difficulty sleeping
- Fatigue
- Dry mouth
- Pain
- Headache

Contact your health care provider or pharmacist immediately if you begin to experience problems or if your treatment makes you sick. If side effects make you want to skip taking your medications sometimes or stop taking them altogether, talk to your health care provider or pharmacist right away to find solutions that work for you. Your health care provider may prescribe medicines

to reduce or eliminate side effects or may recommend changing your medication to another type of cART that might work better for you.

Drug Resistance

Drug resistance can be a cause of treatment failure for people living with HIV. As HIV multiplies in the body, the virus sometimes mutates (changes form) and produces variations of itself. Variations of HIV that develop while a person is taking HIV medicines can lead to drug-resistant strains of HIV. With drug resistance, HIV medicines that previously controlled a person's HIV are not effective against new, drug-resistant HIV. In other words, the HIV medicines can't prevent the drug-resistant HIV from multiplying. Drug resistance can cause HIV treatment to fail.

A person can initially be infected with drug-resistant HIV or develop drug-resistant HIV after starting HIV medicines. Drug-resistance testing identifies which, if any, HIV medicines won't be effective against a person's HIV. Drug-resistance testing results help determine which HIV medicines to include in an HIV treatment regimen.

Why Is It Important for Me to Take My HIV Medications Every Day?

Medication adherence — taking HIV medicines every day and exactly as prescribed — reduces the risk of drug resistance and provides many benefits. Among them, it:

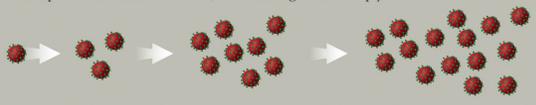
- Allows HIV medications to reduce the amount of HIV in your body. If you skip your medications, even now and then, you are giving HIV the chance to multiply rapidly. Keeping the amount of virus in your blood as low as possible is the best way to protect your health.
- Helps keep your immune system stronger and better able to fight infections.
- Reduces the risk of passing HIV to others. Staying on your treatment plan and keeping the amount of HIV in your body as low as possible means that it is less likely that you can pass the virus to others.
- Helps prevent drug resistance. Drug resistance develops when the virus changes form and no longer responds

to certain HIV medications. This is a problem because that drug no longer works on your HIV. Skipping your medicines makes it easier for drug resistance to develop. Also, HIV can become resistant to the medications you

are taking or to similar ones that you have not yet taken. This limits the options for successful HIV treatment. Drug-resistant strains of HIV can be transmitted to others, too.

HIV Drug Resistance

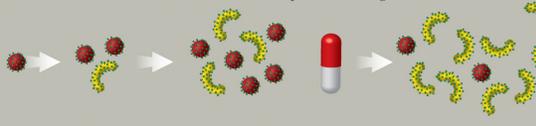
- 1** Once a person is infected with HIV, the virus begins to multiply.


- 2** HIV medicines block HIV from multiplying. Taking HIV medicine daily reduces the amount of HIV in the body.

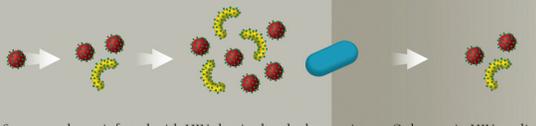

- 3** If a person stops taking their HIV medicines, the virus begins to multiply again. As HIV multiplies, the virus sometimes mutates or changes form.

Mutant HIV


- 4** The new mutant HIV is not affected by the HIV medicines that previously blocked the person's HIV from multiplying. This is called **HIV drug resistance**: the mutant HIV is resistant to one or more HIV medicines that the person is taking.


- 5** Once drug-resistant HIV develops, a person must change HIV medicines. Different HIV medicines are needed to block the drug-resistant HIV from multiplying.

Some people are infected with HIV that is already drug resistant. Only certain HIV medicines will be effective against their drug-resistant strain of HIV.


- 6** Taking HIV medicines every day and exactly as prescribed helps prevent drug resistance. HIV medicines block HIV from multiplying. Having less HIV in the body reduces the chances that the virus will mutate and produce drug-resistant HIV.



Prevent drug resistance. Take your HIV medicines daily.



For more information on drug resistance, visit:
<https://go.usa.gov/xN8Gx>

AIDSinfo
 For more information, visit: aidsinfo.nih.gov

What Should I Do If I Miss a Dose?

Taking your HIV medicines exactly the way your health care provider tells you to will help keep your viral load low and your CD4 cell count high. If you skip your medicines, even now and then, you are giving HIV the chance to multiply rapidly. This could weaken your immune system, and you could become sick.

Talk to your health care provider if you miss a dose. In most cases, if you realize you missed a dose, take the medicines as soon as you can, then take the next dose at your usual scheduled time (unless your pharmacist or health care provider has told you something different).

If you find you miss a lot of doses, talk to your health care provider or pharmacist about ways to help you remember your medicines. You and your health care provider may even decide to change your treatment regimen to fit your health care needs and life situation, which may change over time.

Do I Have to Take My Medicines If My Viral Load Is Undetectable?

Yes, combined antiretroviral therapy (cART) reduces viral load, ideally to an undetectable level. If your viral load goes down after starting ART, then the treatment is working, and you should always take your medicine as prescribed by your health care provider. Even when your viral load is undetectable, HIV can still exist in semen, vaginal and rectal fluids, breast milk, and other parts of your body, so you should continue to take steps to prevent HIV transmission. Taking your HIV medications on schedule will help keep your viral load very low and help you maintain your health. It will also make it more difficult for you to pass HIV on to others.

What Are Some Tips to Help Me Take My Medications Every Day?

Some tips that may help you take your HIV medications every day are:

- Take your medicine at the same time each day.
- Match your medicine schedule to your life. Add taking your medicines to things you already do each day, like brushing your teeth or eating a meal.
- Try a weekly or monthly pill tray with compartments for each day of the week to help you remember whether or not you took your medicine that day.
- Set an alarm on your clock, watch, or phone for the time you take your medicines.
- Use a calendar to check off the days you have taken your medicines.
- Download a free app from the Internet to your computer or on your smartphone that can help remind you when it's time to take your medicines. Search for "reminder apps" and find many choices.
- Ask a family member or friend to help you remember to take your medicine.

You can also visit HIV.gov's Positive Spin or CDC's HIV Treatment Works campaign to view stories of how people living with HIV are taking their HIV medication every day.

What Are Some Challenges I Might Expect to Taking My Medications Every Day?

Taking medications every day can be difficult. That is why it is important to understand some of the challenges you may face and to think through how you might address them before they happen. For example, remembering when to take your medicines can be complicated. Some medication regimens involve taking several pills every day—with or without food—or before or after other medications. Making a schedule of when and how to take your medicines can be helpful. Or ask your health care provider about the availability of multiple drugs combined into one pill.

Other factors can make it difficult to take your HIV medications every day, including:

- Problems taking medications, such as trouble swallowing pills, can make staying on treatment challenging. Your health care provider can offer tips and ideas for addressing these problems.
- Side effects from medications, for example, nausea or diarrhea, can make a person not want to take them. Talk to your health care provider. There are medicines or other support, like nutritional counseling to make sure you are getting important nutrients, which can help with the most common side effects. But don't give up. Work with your health care provider to find a treatment that works for you.
- A busy schedule. Work or travel away from home can make it easy to forget to take pills. Planning ahead can help. Or, it may be possible to keep extra medicines at work or in your car for the times that you forget to take them at home. But make sure you talk to your health care provider—some medications are affected by extreme temperatures, and it is not always possible to keep medications at work.
- Being sick or depressed. How you feel mentally and physically can affect your willingness to stick to your HIV medications. Again, your health care provider is an important source of information to help with your mental health needs.
- Alcohol or drug use. If substance use is interfering with your ability to keep yourself healthy, it may be time to seek help to quit or better manage it.
- Treatment fatigue. Some people find that taking their HIV medications becomes harder over time. Every time you see your health care provider, make it a point to talk about staying adherent to your medications.

Your health care provider will help you identify barriers to keeping up with your HIV medication regimen and ways to address those barriers. Understanding issues that can make keeping up with your HIV medication regimen difficult will help you and your health care provider select the best treatment for you. Tell your health care provider right away if you're having trouble taking your HIV medication every day. Together you can identify the reasons why you're skipping medications and make a plan to address those reasons. Joining a support group, or enlisting the support of family and friends, can also help you.

SOURCE: www.HIV.gov

BEING ACTIVE IN YOUR MEDICAL TREATMENT

What Can I Expect at My Medical Visits?

Living with HIV can be challenging at times. Partnering with your health care provider will help you manage your health and HIV care.

During your medical appointments, your health care provider may:

- Conduct medical exams to see how HIV is affecting your body.
- Ask you questions about your health history.
- Take a blood sample to check your CD4 count and viral load.
- Look for other kinds of infections or health problems that may weaken your body, make your HIV infection worse, or prevent your treatment from working as well as possible.
- Give you immunizations, if you need them.
- Discuss, prescribe, and monitor your HIV medicines, including when and how to take them, possible side effects, and continued effectiveness.
- Discuss strategies that will help you follow your HIV treatment plan and maintain your treatment.
- Help identify additional support you may need, such as: finding a social worker, case manager or patient navigator; finding an HIV support group; finding support services for mental health or substance use issues; or finding support services for transportation or housing.
- Ask you about your sex partner(s) and discuss ways to protect them from getting HIV.
- Ask you about your plans, or your partner's plans, for getting pregnant.

Talk regularly with your health care provider about how you are feeling and communicate openly and honestly. Tell your health care provider about any health problems you are having so that you can get proper treatment. Discuss how often you should expect to attend medical visits. Staying informed about HIV care and treatment advances and partnering with your health care provider are important steps in managing your health and HIV care.

SOURCE: www.HIV.gov

Preparing for Your Medical Visit

Before your appointment, you might want to write a list answering the following questions:

- How do you think you were exposed to HIV?
- What are your symptoms?
- Do you have risk factors, such as participating in unprotected sex or using intravenous drugs?
- What prescription drugs or supplements do you take?

SOURCE: www.MayoClinic.org

Questions to Ask Your Health Care Provider About HIV Drugs

One of the most important things you can do to make sure you take your medicine correctly is to talk with your doctor about your lifestyle, such as your sleeping and eating schedule. If your doctor prescribes a drug, be sure and ask the following questions (and make sure you understand the answers):

- What dose of the drug should be taken?
How many pills does this mean?
- How often should the drug be taken?
- Does it matter if it is taken with food, or on an empty stomach?
- What should I do if I forget to take a dose?
- What are the side effects of the drug?
- What should be done to deal with the side effects?
- How severe do side effects have to be before a doctor is called?
- Does this medication interact with any other medications I am taking?

During every visit to your doctor, you should talk about whether you are having trouble staying on your treatment plan. Studies show that patients who take their medicine in the right way get the best results: their viral loads stay down, their CD4 counts stay up, and they feel healthier.

Questions to Ask Your Doctor About Combination Therapy

Here are some questions to ask your doctor when discussing taking combination drug therapy:

- How powerful is the combination?
- What are the possible side effects?
- How much is known about the combination?
- How many pills need to be taken, and how often do they need to be taken?
- Will a particular combination interact with other meds?



TAKING CARE OF YOURSELF

At this point in your life it's very important for you focus on yourself, even if you have other people who depend on you to help take care of them such as children, a spouse, or a partner. In fact, they are special reasons why you should take extra care of yourself now. If you stay healthy enough to care for yourself, then you will continue to be healthy enough to care for them. Sometimes in the midst of taking care of others, people forget about themselves. One thing to remember is balance! Find time for yourself to go to the doctor, have quiet time, take your medications and do things that are enjoyable to you. If you live by yourself and only have yourself to care for, great! Seize the opportunity. Don't allow yourself to think that living alone means having to be lonely. Think alone, but not lonely. Remember there are people out there who genuinely care about you and your health. Family and friends can be a great support even though we think they might not. Sometimes they just need to be given a chance. If family or friends have not proven to be as supportive as you would like, try other ways to gain the support you need. Many cities have agencies that have support groups for people living with HIV. There are often opportunities to volunteer with these agencies and attend different events they are hosting. Get out there and get connected. Staying connected with other people can help with your mental health and give you the encouragement you might need.

Being Active in Your Medical Treatment

Often times when people go to the doctor there is not much conversation between the patient and the doctor. Sometimes this is because the patient believes that the doctor should be the only one asking questions, and it's just the job of the patient to answer those questions. Does this describe you? If so, then the truth is that as a patient

you have the right to be active in the medical treatment you are receiving. This means you should have the opportunity to ask questions about your treatment, and have those questions answered. You have the right to have the pros and cons of all treatments and procedures explained to you in a way that you understand. If you are prescribed a medication, ask your doctor to explain the expected results of medication. Also ask what are the potential side effects of taking the medication, and how long they are expected to last. Remember that you are part of a health care team along with your doctor, so don't be afraid to do your part by asking questions.

When you have an appointment to see your doctor, make preparations. Make a list of any complications you have been having. Dizziness, swollen lymph nodes, trouble breathing, persistent coughing, or trouble seeing are some things that should be reported to your doctor. If you have been experiencing problems with any medications you are taking, include them on your list. Nausea, vomiting, itching, rash, or diarrhea are just a few examples of some side effects you should report. Doctors cannot always tell what is going on with your body just by looking at you or by reading the results of your lab tests. Some things will have to be explained by you. Many health problems can be found sooner if you talk with your doctor. The sooner a health problem is discovered the better chances you have of more treatment options being available.

The Centers for Disease Control (CDC) currently recommends that all HIV-infected people have a screening for tuberculosis. You should also ask your doctor if it is appropriate for you to have a pneumococcal vaccine, hepatitis vaccinations, and annual influenza (flu) vaccine.

Counseling and Support Groups

Attending individual counseling or going to a support group can often offer you the outlet that you need to discuss personal issues. Most doctors can give you a referral to an agency that offers mental health counseling, substance abuse counseling, and support groups for people living with HIV. At first glance, many people reject the idea of attending counseling or support groups, but once they become involved they discover it can be very helpful. The resistance to attending individual counseling or support groups may be because people say, "I don't want anyone to know my business." Counselors and most support groups establish rules of confidentiality to protect your privacy, meaning neither the counselor nor the support group members are allowed to discuss your business with anyone else. There are specific laws in place to protect the privacy of people seeking mental health and substance abuse counseling in every state. Asking counselors and support group facilitators about their confidentiality policies before deciding to attend can give you the extra comfort you need. Counseling and support groups can help you to deal with all kinds of issues including: anxiety, depression, bereavement (feelings of grief and loss), suicide, and guilt. You should not feel strange or outcast if these are some emotions you have been dealing with. The one thing to remember is that you are still human, and there are people and agencies out there who want to offer you help. But sometimes you have to make the first step.

It's Not Over!

Life changes frequently and sometimes without notice, and although being diagnosed with HIV may be a life change that was sudden and without warning, it does not mean the end. With all of the current research and treatments now available, HIV is a more manageable disease than it was 15-20 years ago. As with most diseases, staying positive and maintaining a positive network of support could be the best medicine for continuing a life full of quality.



WHAT ARE OPPORTUNISTIC INFECTIONS?

Opportunistic infections (OIs) are infections that occur more frequently and are more severe in individuals with weakened immune systems, including people with HIV. People are at greatest risk for OIs when their CD4 count falls below 200, but you can get some OIs when your CD4 count is below 500.

OIs are less common now than they were in the early days of HIV and AIDS because better treatments reduce the amount of HIV in a person's body and keep a person's immune system stronger. However, many people with HIV still develop OIs because they did not know they had HIV for many years after they were infected. Other people who know they have HIV can get OIs because they are not taking combined antiretroviral therapy (cART); they are on cART, but it is failing and the virus has weakened their immune system; or they have AIDS but are not taking medication to prevent OIs.

Staying in care and getting your lab tests done is one of the most important things you can do to prevent opportunistic infections. This will allow your provider to know when you might be at risk for OIs and work with you to prevent them.

If you develop an OI, there are treatments available, such as antibiotics or antifungal drugs. Having an OI may be a very serious medical situation and its treatment can be challenging. The best way to prevent OIs is to reduce your risk by staying in care, taking cART every day, and keeping your viral load undetectable or very low so that your immune system can stay strong.

Most Common Opportunistic Infections

Candidiasis of bronchi, trachea, esophagus, or lungs

This illness is caused by infection with a common (and usually harmless) type of fungus called *Candida*. Candidiasis, or infection with *Candida*, can affect the skin, nails, and mucous membranes throughout the body. Persons with HIV infection often have trouble with *Candida*, especially in the mouth and vagina. However, candidiasis is only considered an OI when it infects the esophagus (swallowing tube) or lower respiratory tract, such as the trachea and bronchi (breathing tube), or deeper lung tissue.

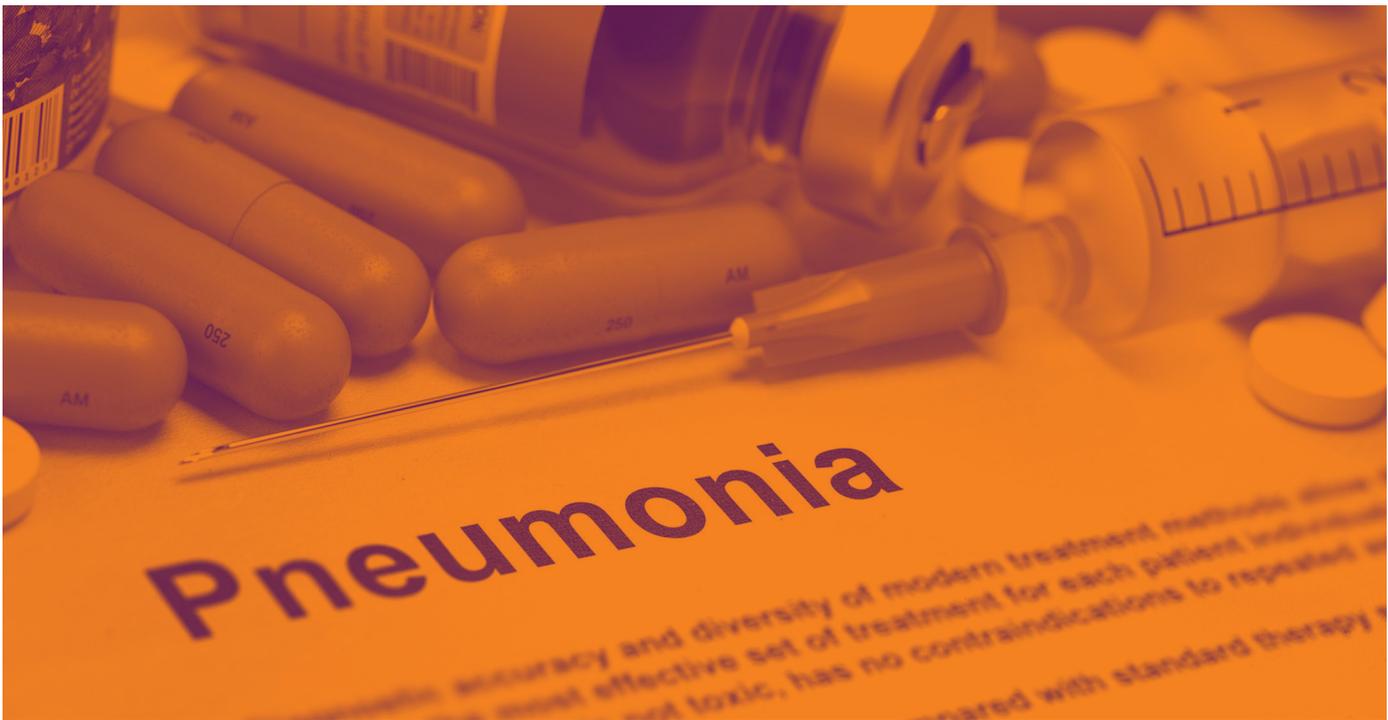
Invasive cervical cancer

This is a cancer that starts within the cervix, which is the lower part of the uterus at the top of the vagina, and then spreads (becomes invasive) to other parts of the body. This cancer can be prevented by having your care provider perform regular examinations of the cervix.

Coccidioidomycosis

This illness is caused by the fungus *Coccidioides immitis*. It most commonly acquired by inhaling fungal spores, which can lead to a pneumonia that is sometimes called desert fever, San Joaquin Valley fever, or valley fever. The disease is especially common in hot, dry regions of the southwestern United States, Central America, and South America.

SOURCE: www.HIV.gov



Cryptococcosis

This illness is caused by infection with the fungus *Cryptococcus neoformans*. The fungus typically enters the body through the lungs and can cause pneumonia. It can also spread to the brain, causing swelling of the brain. It can infect any part of the body, but (after the brain and lungs) infections of skin, bones, or urinary tract are most common.

Cryptosporidiosis, chronic intestinal (greater than one month's duration)

This diarrheal disease is caused by the protozoan parasite *Cryptosporidium*. Symptoms include abdominal cramps and severe, chronic, watery diarrhea.

Cytomegalovirus diseases (particularly retinitis) (CMV)

This virus can infect multiple parts of the body and cause pneumonia, gastroenteritis (especially abdominal pain caused by infection of the colon), encephalitis (infection of the brain), and sight-threatening retinitis (infection of the retina at the back of eye). People with CMV retinitis have difficulty with vision that worsens over time. CMV retinitis is a medical emergency because it can cause blindness if not treated promptly.

Encephalopathy, HIV-related

This brain disorder is a result of HIV infection. It can occur as part of acute HIV infection or can result from chronic HIV infection. Its exact cause is unknown but it is thought to be related to infection of the brain with HIV and the resulting inflammation.

Herpes simplex (HSV): chronic ulcer(s) (greater than one month's duration); or bronchitis, pneumonitis, or esophagitis

Herpes simplex virus (HSV) is a very common virus that for most people never causes any major problems. HSV is usually acquired sexually or from an infected mother during birth. In most people with healthy immune systems, HSV is usually latent (inactive). However, stress, trauma, other infections, or suppression of the immune system (such as by HIV), can reactivate the latent virus and symptoms can return. HSV can cause painful cold sores (sometime called fever blisters) in or around the mouth, or painful ulcers on or around the genitals or anus. In people with severely damaged immune systems, HSV can also cause infection of the bronchus (breathing tube), pneumonia (infection of the lungs) and esophagitis (infection of the esophagus, or swallowing tube).

Histoplasmosis

This illness is caused by the fungus *Histoplasma capsulatum*. *Histoplasma* most often infects the lungs and produces symptoms that are similar to those of influenza or pneumonia. People with severely damaged immune systems can get a very serious form of the disease called progressive disseminated histoplasmosis. This form of histoplasmosis can last a long time and involves organs other than the lungs.

Isosporiasis, chronic intestinal (greater than one month's duration)

This infection is caused by the parasite *Isospora belli*, which can enter the body through contaminated food or water. Symptoms include diarrhea, fever, headache, abdominal pain, vomiting, and weight loss.

Kaposi's sarcoma (KS)

This cancer, also known as KS, is caused by a virus called Kaposi's sarcoma herpesvirus (KSHV) or human herpesvirus 8 (HHV-8). KS causes small blood vessels, called capillaries, to grow abnormally. Because capillaries are located throughout the body, KS can occur anywhere. KS appears as firm pink or purple spots on the skin that can be raised or flat. KS can be life-threatening when it affects organs inside the body, such the lung, lymph nodes or intestines.

Lymphoma, multiple forms

Lymphoma refers to cancer of the lymph nodes and other lymphoid tissues in the body. There are many different kinds of lymphomas. Some types, such as non-Hodgkin lymphoma and Hodgkin lymphoma, are associated with HIV infection.

Tuberculosis (TB)

Tuberculosis (TB) infection is caused by the bacteria *Mycobacterium tuberculosis*. TB can be spread through the air when a person with active TB coughs, sneezes, or speaks. Breathing in the bacteria can lead to infection in the lungs. Symptoms of TB in the lungs include cough, tiredness, weight loss, fever, and night sweats. Although the disease usually occurs in the lungs, it may also affect other parts of the body, most often the larynx, lymph nodes, brain, kidneys, or bones.

***Mycobacterium avium* complex (MAC) or *Mycobacterium kansasii*, disseminated or extrapulmonary. Other *Mycobacterium*, disseminated or extrapulmonary**

MAC is caused by infection with different types of mycobacterium: *Mycobacterium avium*, *Mycobacterium intracellulare*, or *Mycobacterium kansasii*. These mycobacteria live in our environment, including in soil and dust particles. They rarely cause problems for persons with healthy immune systems. In people with severely damaged immune systems, infections with these bacteria spread throughout the body and can be life-threatening.

***Pneumocystis carinii* pneumonia (PCP)**

This lung infection, also called PCP, is caused by a fungus, which used to be called *Pneumocystis carinii*, but now is named *Pneumocystis jirovecii*. PCP occurs in people with weakened immune systems, including people with HIV. The first signs of infection are difficulty breathing, high fever, and dry cough.

Pneumonia, recurrent

Pneumonia is an infection in one or both of the lungs. Many germs, including bacteria, viruses, and fungi can cause pneumonia, with symptoms such as a cough (with mucous), fever, chills, and trouble breathing. In people with immune systems severely damaged by HIV, one of the most common and life-threatening causes of pneumonia is infection with the bacteria *Streptococcus pneumoniae*, also called *Pneumococcus*. There are now effective vaccines that can prevent infection with *Streptococcus pneumoniae* and all persons with HIV infection should be vaccinated.

Progressive multifocal leukoencephalopathy

This rare brain and spinal cord disease is caused by the JC virus. It is seen almost exclusively in persons whose immune systems have been severely damaged by HIV. Symptoms may include loss of muscle control, paralysis, blindness, speech problems, and an altered mental state. This disease often progresses rapidly and may be fatal.

***Salmonella* septicemia, recurrent**

Salmonella are a kind of bacteria that typically enter the body through ingestion of contaminated food or water. Infection with salmonella (called salmonellosis) can affect

anyone and usually causes a self-limited illness with nausea, vomiting, and diarrhea. *Salmonella* septicemia is a severe form of infection in which the bacteria circulate through the whole body and exceeds the immune system's ability to control it.

Toxoplasmosis of brain

This infection, often called toxo, is caused by the parasite *Toxoplasma gondii*. The parasite is carried by warm-

blooded animals including cats, rodents, and birds and is excreted by these animals in their feces. Humans can become infected with it by inhaling dust or eating food contaminated with the parasite. *Toxoplasma* has been found in commercial meats, especially red meats and pork, but rarely poultry. Infection with toxo can occur in the lungs, retina of the eye, heart, pancreas, liver, colon, testes, and brain. Although cats can transmit toxoplasmosis, litter boxes can be changed safely by wearing gloves and washing hands thoroughly with soap and water afterwards. All raw red meats that have not been frozen for at least 24 hours should be cooked through to an internal temperature of at least 150°F.

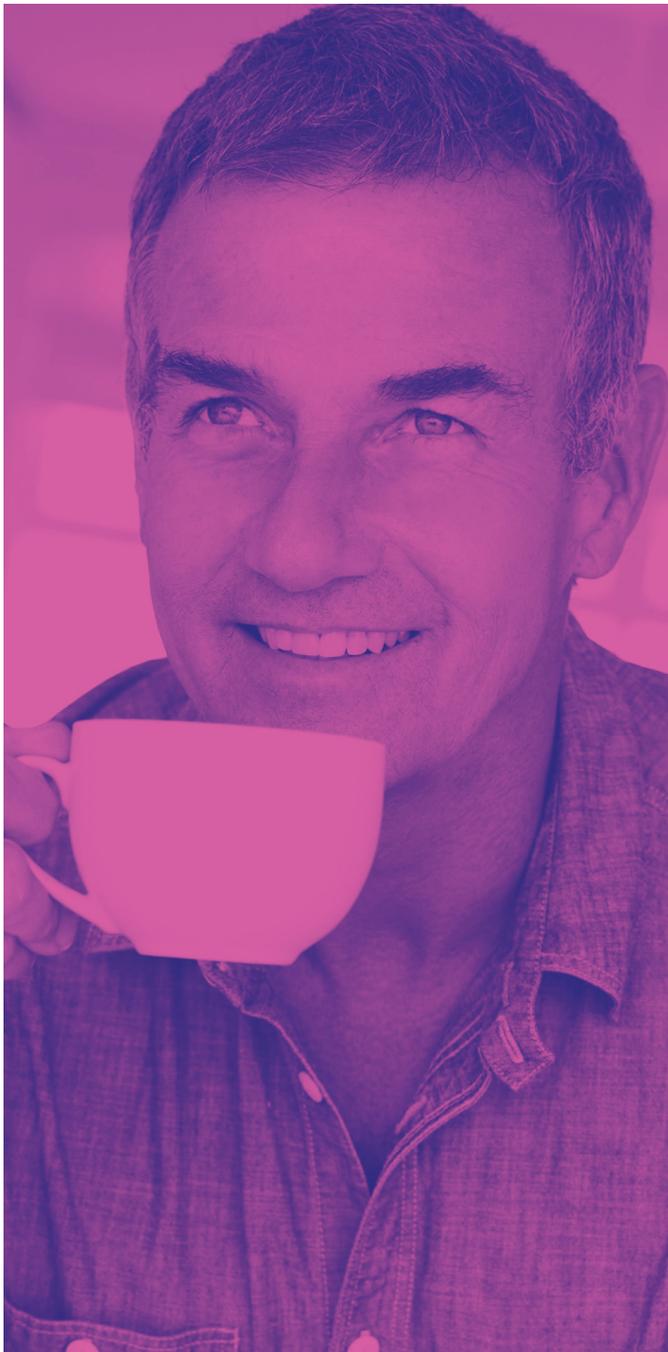
Wasting syndrome due to HIV

Wasting is defined as the involuntary loss of more than 10 percent of one's body weight while having experienced diarrhea or weakness and fever for more than 30 days. Wasting refers to the loss of muscle mass, although part of the weight loss may also be due to loss of fat.

SOURCE: www.AIDS.gov

Treating Opportunistic Infections

If you do develop an OI, there are treatments available, such as antibiotics or antifungal drugs. Having an OI may be a very serious medical situation and its treatment can be challenging. The development of an OI likely means that your immune system is weakened and that your HIV is not under control. That is why it is so important to be on medication, take it as prescribed, see your care provider regularly, and undergo the routine monitoring he or she recommends to ensure your viral load is reduced and your immune system is healthy.



HEPATITIS AND HIV

Hepatitis A

Hepatitis A virus (HAV) is spread by direct or indirect contact with fecal material (human waste). The virus can be contracted through contact with infected people, eating contaminated food or drinking contaminated water.

Exposure to HAV is particularly common in people who travel to developing countries where HAV is widespread. Also, people who engage in oral-anal sex with someone infected with Hepatitis A may be at risk.

The symptoms of Hepatitis A vary from person to person. Children usually have few to no symptoms at all. Adults however can experience symptoms such as diarrhea, nausea, vomiting, fatigue, achiness, fever, loss of appetite, abdominal pain or tenderness, and jaundice (yellowing of the skin/eyes and darkening of urine).

Hepatitis A can be prevented through a vaccination or good hygiene. There is no treatment for Hepatitis A; however, people usually clear the infection from their body on their own. An injection of immune globulins (also called gamma globulins) can sometimes be given to people who have been exposed to HAV in order to prevent or reduce the symptoms. Talk to your doctor if you feel you may have been exposed.

Hepatitis B and C Virus Infection

People with HIV infection in the United States are often affected by chronic viral hepatitis; about one-third are coinfecting with either hepatitis B virus (HBV) or hepatitis C virus (HCV). More people living with HIV are infected with HCV than with HBV. About 1 in 10 people living with HIV are coinfecting with HBV, and about 1 in 4 people are coinfecting with HCV.

Like HIV, HBV and HCV are spread by sharing needles, syringes, and other injection equipment. Both viruses can

also be transmitted sexually, but HBV is much more likely than HCV to be transmitted sexually. Sexual transmission of HCV is most likely to happen among gay and bisexual men who are living with HIV. Pregnant women can pass these infections to their infants.

Viral hepatitis progresses faster and causes more liver-related health problems among people with HIV than among those who do not have HIV. Liver disease, much of which is related to HBV or HCV, is a major cause of non-AIDS related deaths among people living with HIV.

Everyone living with HIV should be tested for HBV and HCV. Those who are at risk for HBV should be vaccinated against it. Vaccination is the best way to protect against all of the ways that HBV is transmitted. No vaccine exists for HCV. The best way to prevent HCV infection is to never inject drugs or to stop injecting drugs by getting into and staying in drug treatment. If you continue injecting drugs, always use new, sterile needles or syringes, and never reuse or share needles or syringes, water, or other drug preparation equipment.

HIV-HBV and HIV-HCV coinfections can be effectively treated in most people, but treatment can be complex, and people with coinfection should look for health care providers with expertise in the management of both HIV infection and viral hepatitis. For HBV, treatment can delay or limit liver damage by suppressing the virus. Treatment for HCV infection cures more than 90 percent of people, including those living with HIV, in 12-24 weeks.

Given the risks of HBV or HCV coinfection to the health of people living with HIV, it is important to understand these risks, take steps to prevent infection, know your status, and if necessary, get medical care from someone who is experienced in treating people who are coinfecting with HIV, HBV, and HCV.

Source: www.HIV.gov

Living With HIV 101

Start medical care and HIV treatment as soon as you find out you have HIV.
Staying in medical care can keep you healthy and help protect others.

How Can I Stay Healthy With HIV?

- Get into medical care right away. Locate a provider by visiting www.cdc.gov/hivtreatmentworks.
- Take medicine called ART (antiretroviral therapy) the right way, every day, regardless of how long you've had the virus. This treatment can keep you healthy.
- Stay in medical care. Visit your health care provider regularly.
- Find a local support group, and talk to others who have HIV. Locate a group by visiting <https://npin.cdc.gov/search/organization/support>.



How Can I Get Help Paying For ART?

- If you have health insurance, your insurer is required to cover some medicines used to treat HIV.
- If you don't have health insurance, or you can't afford your copay or co-insurance amount, you may be able to get help through Medicaid, Medicare, the Ryan White HIV/AIDS Program, and community health centers. Visit www.cdc.gov/hivtreatmentworks to learn more.



How Can I Protect Others?

- Take ART every day. This can keep you healthy and greatly reduce your chance of transmitting HIV.
- Tell your sex or drug-using partners that you are living with HIV.
- Use condoms the right way every time you have sex.
- Choose less risky sex, like oral sex.
- If you inject drugs, never share your needles or works with anyone.
- Talk to your partners about them taking daily medicine to prevent HIV, called pre-exposure prophylaxis or PrEP.
- Get tested and treated for other sexually transmitted diseases (STDs).



For more information please visit www.cdc.gov/hiv

December 2016

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention
Division of HIV/AIDS Prevention



LIVING WITH HIV

Today, an estimated 1.1 million people are living with HIV in the United States. Thanks to better treatments, people with HIV are now living longer—and with a better quality of life—than ever before. If you are living with HIV, it's important to make choices that keep you healthy and protect others.

Stay Healthy

You should start medical care and begin HIV treatment as soon as you are diagnosed with HIV. Taking medicine to treat HIV, called combined antiretroviral therapy (cART), is recommended for all people with HIV. Taking medicine to treat HIV slows the progression of HIV and helps protect your immune system. The medicine can keep you healthy for many years and greatly reduces your chance of transmitting HIV to sex partners if taken the right way, every day.

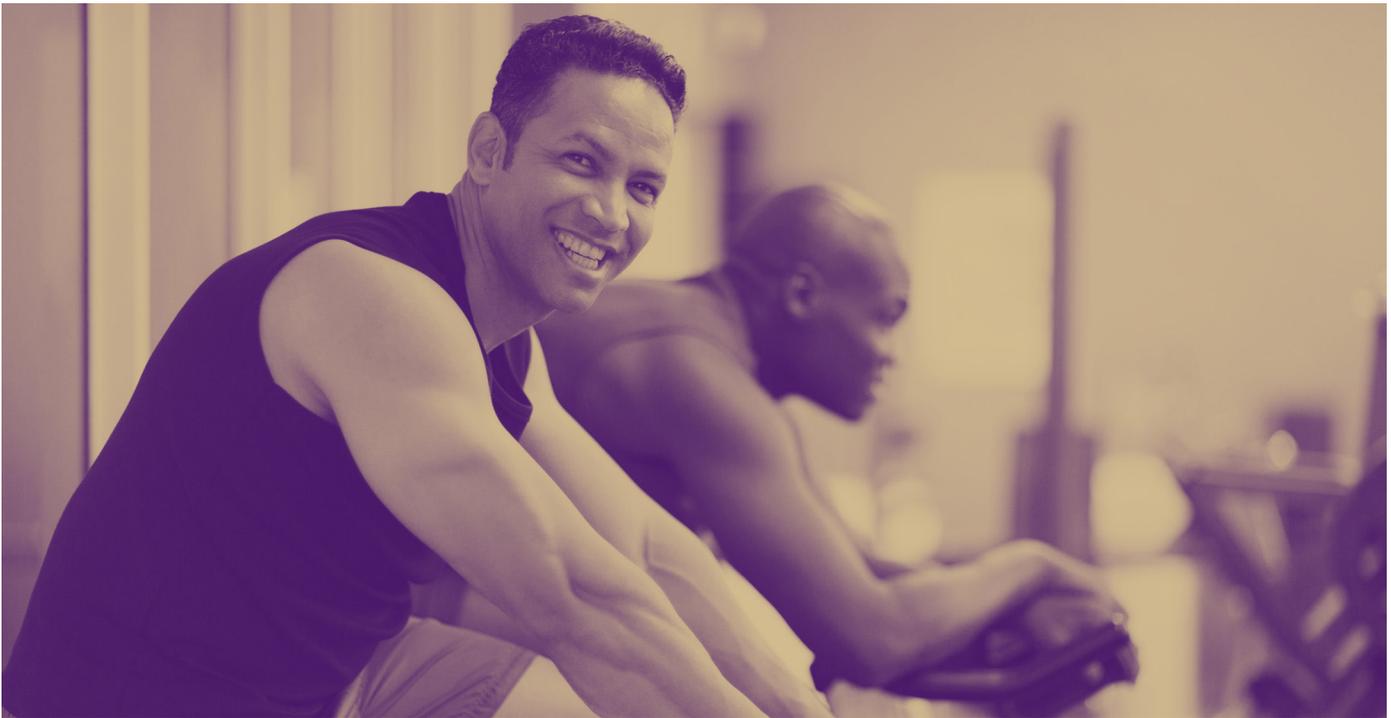
If you're taking medicine to treat HIV, visit your health care provider regularly and always take your medicine as directed to keep your viral load (the amount of HIV in the blood and elsewhere in the body) as low as possible.

Do Tell

It's important to disclose your HIV status to your sex and needle-sharing partners even if you are uncomfortable doing it. Communicating with each other about your HIV status allows you and your partner to take steps to keep both of you healthy.

Many resources can help you learn ways to disclose your status to your partners. For tips on how to start the conversation with your partner, check out CDC's Let's Stop HIV Together and Start Talking campaigns.





Also, ask the Southern Nevada Health District at (702) 759-0702 about free partner notification services. Health District staff can help find your sex or needle-sharing partners to let them know they may have been exposed to HIV and provide them with testing, counseling, and referrals for other services. These partner notification services will not reveal your name unless you want to work with them to tell your partners.

Many states have laws that require you to tell your sexual partners if you're HIV-positive before you have sex (anal, vaginal, or oral) or tell your needle-sharing partners before you share drugs or needles to inject drugs. In some states, you can be charged with a crime if you don't tell your partner your HIV status, even if your partner doesn't become infected.

Get Support

Receiving a diagnosis of HIV can be a life-changing event. People can feel many emotions —sadness, hopelessness, and even anger. Allied health care providers and social service providers, often available at your health care provider's office, will have the tools to help you work

through the early stages of your diagnosis and begin to manage your HIV.

Talking to others who have HIV may also be helpful. Find a local HIV support group. Learn about how other people living with HIV have handled their diagnosis.

Reduce the Risk to Others

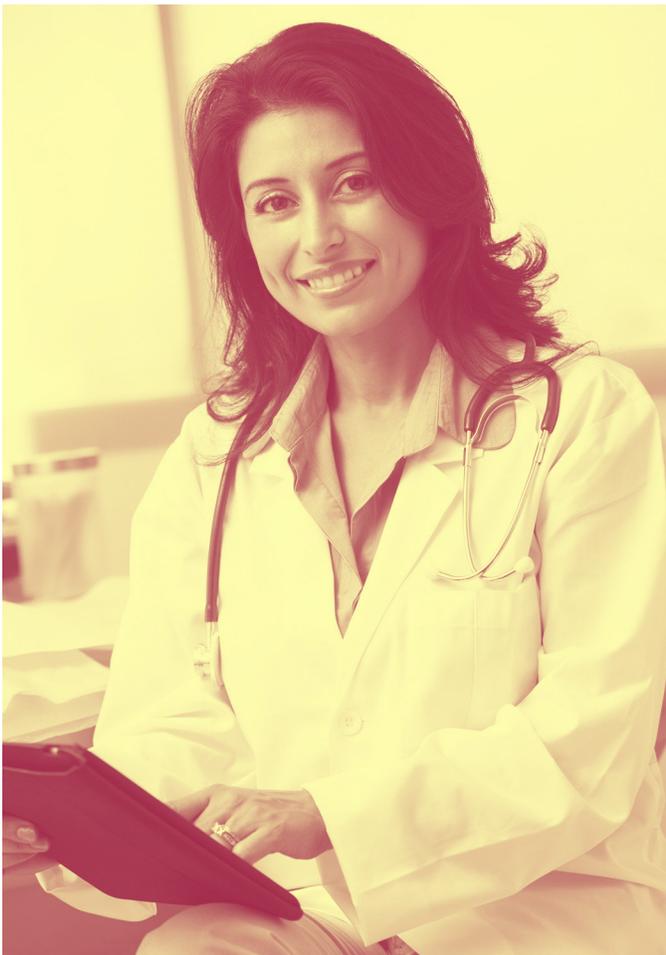
The higher your viral load, the more likely you are to transmit HIV to others. When your viral load is very low (called viral suppression, with less than 200 copies per milliliter of blood) or undetectable (about 40 copies per milliliter of blood), your chance of transmitting HIV is greatly reduced. However, this is true only if you can stay virally suppressed. One thing that can increase viral load is not taking HIV medicines the right way, every day.

You can also protect your partners by getting tested and treated for other sexually transmitted infections (STI). If you have both HIV and some other STI with sores, like syphilis, your risk of transmitting HIV can be about three times as high as if you didn't have any STI with sores.

HIV AND WOMEN'S HEALTH

HIV affects women in unique ways. If you are a woman living with HIV, you may experience changes in your menstrual cycle or get different side effects from HIV medicines than men. HIV can also cause other health problems that are unique to women. But by taking care of your health, taking HIV medicine, and staying in regular medical care, you can keep the virus under control and live a long, healthy life.

Following is some information about health issues that women living with HIV may experience.



HIV and Sexually Transmitted Infections (STIs)

- Genital herpes. Genital herpes is an STI caused by the herpes simplex viruses type 1 (HSV-1) and type 2 (HSV-2). Outbreaks of herpes sores can last longer and happen more often in people with HIV and may be more severe and painful. The sores may be worse when CD4 cell counts are low. Herpes sores can be treated, and medicine can help prevent future outbreaks. But treatment may not work as well for women with HIV, who may develop resistance to the herpes medicine.
- Chancroid. Chancroid is an STI caused by the bacterium *Haemophilus ducreyi*. Very few people are diagnosed in the United States each year with this infection. It begins with open sores on the genitals. You may not notice the sores, and you may not have other symptoms. Symptoms can include pain when urinating or having bowel movements, painful sex, rectal bleeding, or vaginal discharge. Many medicines are used to treat chancroid. For women living with HIV, chancroid ulcers may heal more slowly or may need to be treated more than once.
- Pelvic inflammatory disease (PID). PID is an infection of a woman's pelvic organs (uterus, fallopian tubes, and ovaries). In women living with HIV, PID may be harder to treat, may not go away, or may come back repeatedly as a woman's immune system weakens. PID also can make it harder to get pregnant.

HIV and Cervical Cancer

Cervical cancer is cancer that starts in the cervix, the lower, narrow part of the uterus (womb). Cervical cancer is an AIDS-defining cancer. That means that a diagnosis of cervical cancer marks the point at which HIV infection has progressed to AIDS. Cervical cancer is almost always

caused by human papillomavirus (HPV) infection. The types of HPV that cause cervical cancer are more common in women who are HIV-positive. Women with HIV need to get regular Pap tests to help find changing cervical cells before they turn into cancer. If you are a woman living with HIV, you should get a Pap test two times during the first year after you're diagnosed. Then, if the results are normal, get a Pap test once a year. If results are not normal, talk to your doctor about how often you should get a Pap test and the next steps to take.

HIV and Vaginal Infections

Vaginal yeast infections are infections of the vagina that cause itching and burning of the vulva. They are common and easily treated in most women, but can happen more often and may be harder to treat in women living with HIV. Recurring vaginal yeast infections (at least four times a year) happen more often in women with advanced HIV or AIDS.

Bacterial vaginosis (BV) is a vaginal infection caused by changes in the amount or balance of bacteria normally found in the vagina. BV is more common in women living with HIV and may be harder to treat.

HIV and the Menstrual Cycle

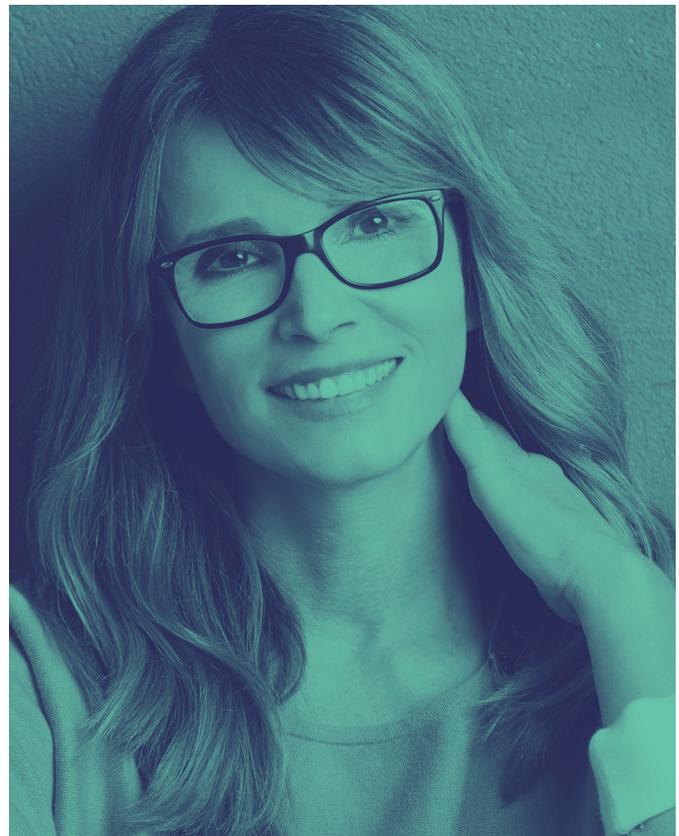
Women with HIV may have more menstrual problems than other women. If you are a woman living with HIV, you may have lighter or heavier bleeding, missed periods, and more severe premenstrual syndrome.

These problems may be caused by other factors that are more common in women with HIV — such as STIs or stress — rather than by the infection. But the change in your immune system could affect your hormones and cause problems with your period. Weight loss, chronic disease, drug abuse, birth control, HIV drugs, uterine fibroids, itching, genital tract infections, and perimenopause can all cause menstrual problems.

HIV Treatment and Women

If you are living with HIV, it is important to take HIV medicines every day, exactly as prescribed, to get the virus under control and stay healthy. However, some other drugs can interact with your HIV medicines. These drug interactions can hurt you or make your HIV medicines weaker. You should tell your doctor if you are:

- Using any other prescribed medicines.
- Using any recreational drugs, alcohol, herbal remedies, or over-the-counter medicines.
- Using hormonal birth control, including the shot, pills, or implants. Some HIV medicines may affect how much of the birth control hormone stays in your system, raising your risk for pregnancy. Talk to your doctor about the type of birth control you use and whether you need to switch to another method.
- Pregnant or planning to become pregnant. This will affect what treatment is best to keep you healthy and prevent HIV transmission to your baby.



HIV medicines also may cause different side effects in women than men. For example:

- Nevirapine. Studies linked the use of nevirapine (also called NVP, Viramune) to a higher risk of rashes and problems with the liver for women with higher CD4 counts.
- Ritonavir. Ritonavir (also called Norvir, RTV) may cause more nausea and vomiting in women but less diarrhea in women than in men. Ritonavir is sometimes prescribed to help other HIV medicines work better.

Other studies show that women are more likely to get fat buildup throughout the body and have problems with the pancreas than men.

Do not change the dose of your HIV medicine on your own. If you are having problems with side effects, talk to your doctor. Read more about HIV medicine and side effects.

Pregnancy and HIV

A diagnosis of HIV does not mean you can't have children. But you can pass HIV to your baby during the pregnancy, while in labor, while giving birth, or by breastfeeding. The good news is that there are ways to lower the risk of passing HIV to your unborn baby to 1 percent or less .

Contact the Health District Case Management Program at 702-759-0800 to speak with a specially trained nurse case manager who can provide information and guidance about pregnancy and childbirth for women living with HIV.

HIV and Healthy Aging for Women Living with HIV

Thanks to treatment, many women with HIV are living longer lives. This also means that as women with HIV age, they will face health problems that are common in all older women. These problems include heart disease, diabetes, high blood pressure, arthritis, and some cancers. See Other Resources on page 42 for information about heart disease and diabetes.



Women with HIV also may face also other health concerns as they age. These include:

- Menopause. HIV affects women with menopause in unique ways. For example, you may enter menopause at a younger age than normal (the average age in the United States is 52). Researchers also think the drop in the female hormone estrogen after menopause may affect CD4 counts. In addition, you may have more severe hot flashes during menopause than women who do not have HIV. Learn more about menopause.
- Osteoporosis. Osteoporosis is a disease of the bones. People with osteoporosis have bones that are weak and break easily. Osteoporosis is a concern for all postmenopausal women, but especially for women living with HIV. Osteoporosis may happen at younger ages in women (and men) who have HIV. Some HIV medicines may also increase the risk of osteoporosis. Learn more about HIV and osteoporosis.

SOURCE: www.HIV.gov

NUTRITION, HYGIENE, AND EXERCISE

Practicing good nutrition has always been key in the establishment and maintenance of good health. According to the USDA's 2015-2020 Dietary Guidelines, the amount of diet-related disease have risen dramatically over the past century. This is due to lifestyle choices, specifically individuals making poor food choices on a consistent basis. The Dietary Guidelines state that about half of all Americans have at least one preventable chronic disease which includes; heart disease, type 2 diabetes, some cancers, poor bone health, and many other diseases. The fact that many people today know little about good nutrition has increased the incidence of diet-related health problems. There are several reasons why many people in the United States practice poor nutrition habits. One factor may be the lack of the proper education about a healthy diet. Also, the lack of financial resources to secure food that is nutritious may be a barrier. Another factor may be the lack of proper storage for nutritious foods. The lack of refrigeration alone is one element that can easily eliminate several options for nutritious eating. People dealing with issues of homelessness or those living in motels often do not have access to refrigeration or even a place to store several days' worth of nonperishable food. The lack of cooking facilities is also a barrier to nutritious eating. The vast availability and convenience of fast food and "junk food" here in the U.S. has also played a role in decreasing healthy eating habits. Speaking with your doctor or a registered dietitian about a nutrition strategy to help you stay healthy is an important step you can take. Some people with HIV may have a difficult time with getting the nutrition that they need.

Some people may feel too tired or sick to prepare food that is nutritious. Others may feel like they have a loss of appetite or they don't want to eat. People with oral thrush, oral herpes or dental problems might find it difficult to chew or swallow food. Diarrhea may also be the cause for nutritional deficiency. When a person has diarrhea,

their body loses vital fluids and nutrients, which must be replaced. If any of these situations describe something that you may be experiencing or if you feel that you are not getting the nutrition you need, see your doctor or a registered dietitian.

Ask case manager for a referral to dietitian who will help develop a healthy eating plan.

When it comes to talking about nutrition many people think about weight. In general, American society has been concerned about too much weight gain; however, for many people living with HIV too much weight loss is sometimes a concern. The loss of muscle mass and even too much loss of body fat can put a strain on your body's immune system. It is important to remember that every person's body is different, and there are several reasons why weight loss may occur. If you feel that you are suffering from the loss of too much body weight (8-10 pounds or more in one month), speak with your doctor or a registered dietitian, they may be able to help you find a solution if your weight loss is a problem.

Maintaining good hygiene is an important factor in nutrition and overall health. Good hygiene includes keeping the area where you store and prepare your food clean. Keeping the area where you store and prepare your food clean helps to avoid food contamination. Many illnesses are caused by poor food storage and preparation. Dirty hands can also play a role in food contamination. Also keeping your entire body as clean as possible will help to avoid infection and illness.

Avoiding exposure to common infections, which may weaken the immune system, may be possible through practicing good hygiene.

Why is Nutrition Important?

Eating well is important in the fight to stay healthy, especially for those with HIV. For people with HIV eating healthy is important to maintaining body weight, muscles, and the immune system. Food is the source of energy for your body. Eating healthy foods increases your physical strength. Without food your body cannot function, and without the proper foods your body cannot function well. It is easy for your body to process certain foods into energy we can use. However, other foods are not as useful to your body. Foods high in sugar, fat, and caffeine may not be as useful to your body as some other foods, and actually may cause or complicate certain disease processes. Nutrition is important in every stage of HIV infection. Certain nutritional deficiencies can cause many additional problems for people with HIV. Weight loss, wasting, loss of lean muscle mass, malnutrition and other complications can occur or be worsened by a poor nutritional diet. Your doctor or a registered dietitian can help you deal with these types of complications, but only if you speak up. Make sure to come prepared to your appointments with a list of questions you would like your medical provider to answer. Your medical provider is here to help you in your journey of leading a healthy life but ultimately we all need to be more proactive with our health.

Learning which foods are nutritious for you is the beginning of starting a nutritious strategy for healthy living. It's a strategy because what you eat and your immune system's ability to fight off disease are connected. One way to begin eating healthy is to buy healthy foods. This may sound simple or even like it goes without saying, but the truth is if you buy healthy foods then you'll be more likely to eat healthy. Your body needs some basic nutrients in order to stay strong; these include proteins, carbohydrates, fats, water, minerals, and vitamins. Each of these nutrients provide your body with the basic building blocks needed to keep you healthy. Your doctor or a registered dietitian can advise you about how much of each of these nutrients you need to keep your body strong.

Eating Well without a Refrigerator or Stove

For some people who do not have access to refrigeration eating well is a daily challenge. Buying fast food everyday can be expensive and it's not always the best nutritional meal. If you have a safe place that you could store your food, then it is still possible to buy food that will provide a nutritious meal even without a refrigerator or a stove. Canned meats like tuna, chicken, sardines, salmon, and Vienna sausages provide needed protein. Canned beans, peanut butter, and nuts or seeds are also good sources of protein. Fresh, canned or dried fruits and vegetables are good for needed vitamins and minerals. Fresh fruit and vegetables will last for 2-3 days at room temperature. Various types of breads, cold and hot cereals, and crackers are a good source of carbohydrates and are good for quickly filling your stomach. Single or small servings of dairy products such as milk, cheese, yogurt, pudding, cottage cheese, and ice cream are good sources for needed vitamins and protein.

Vitamins and Supplements

Vitamins and minerals are important to have in your diet as well as all the other nutrients mentioned in the previous sections. Sometimes doctors or a registered dietitian will prescribe vitamins, minerals, or nutritional supplements because a person is not getting enough in their regular diet. The body needs different kinds of vitamins and minerals, in various amounts, to support functions it completes daily. However, taking large doses of vitamins and minerals can be harmful to the body as well. There are several types of vitamins and minerals available in stores or by prescription. More and more people have been experimenting with taking herbal supplements to help give them energy or as immune boosters. If you are taking any anti-HIV medications, be sure to discuss any herbal supplements you are taking with your doctor or pharmacist to talk about any negative interactions that can occur. For example, the popular herbal supplement St. John's Wort has been found in several studies to have an interaction with many of the anti-HIV medications. The interaction causes a decrease in the amount of anti-HIV

medication in a person's blood and causes the anti-HIV medication to be less effective in fighting HIV. Speak with your doctor or a registered dietitian before you decide to take any vitamin or mineral supplements. They will advise you about how much and which kind of vitamins or minerals you should take.

Staying Active

One of the best things that you can do for yourself at this point is to stay active! Don't let yourself get in a rut, because once you do it may be hard to get out. Staying active can be continuing to go to work or to find employment if you are still physically able to work. Find an agency to volunteer for that is in your neighborhood. Attend classes. Some health districts or agencies that offer services to people with HIV may offer educational classes about HIV/AIDS and other health issues. There are agencies that even have speakers' bureaus, which teach people to go out into the community and give their testimonies about living with HIV. These speakers' bureaus are usually looking to educate the community about HIV/AIDS and serve as a prevention effort while giving a face to the disease.

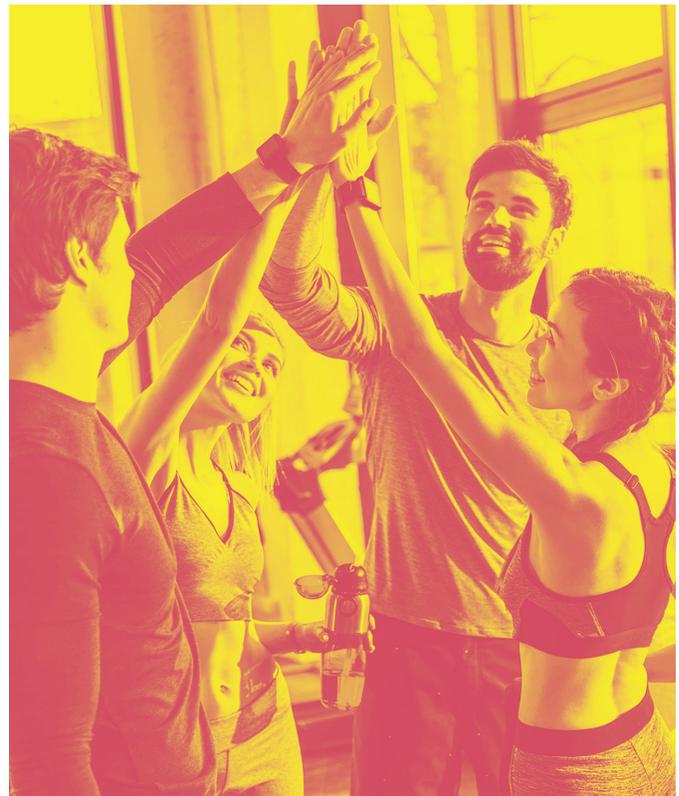
Staying active also means exercising. Exercise is something that people usually find hard to do on a continuous basis. One way to make exercising more exciting is to use a buddy system. Find someone who is also interested in exercising, but needs that extra push. Exercising does not mean that you need to go out and pay for an expensive gym membership. Exercising can be as simple as walking or jogging for 10-15 minutes a day. You can also buy an instructional DVD and exercise at home. Doing some light weight lifting exercises can also prove to be beneficial. The American Heart Association, The American Diabetes Association, the World Health Organization, and many other organizations recommend working your way up to exercising at least 150 minutes a week. Prior to any rigorous physical activities or exercise, you should speak with your doctor about the particular type of physical activities that are safe for you.

Tips for Food Safety

Because HIV affects your immune system, you may be at greater risk for food-borne illness. So in addition to eating well, you need to eat safely. By following a few basic safety rules when you prepare and eat your meals, you can protect yourself from food-related illness:

- Avoid eating raw eggs, meats, or seafood (including sushi and oysters/shellfish).
- Wash fruits and vegetables thoroughly.
- Use a separate cutting board for raw meats.
- Wash hands, utensils, and cutting boards with soap and water after each use.

For people with a weakened immune system, taking precautions to protect their bodies from potential food or water contamination is important. People with HIV, especially those with CD4+ cell (T-cell) counts at 200 or below, can be vulnerable to germs or other contaminants in food or water. This section will discuss some general food and water safety tips that people with HIV can keep in mind. Using these tips will decrease the chances of a person with HIV getting sick from something they eat or drink.



Meat

In general, people with HIV should not eat undercooked or raw meat or seafood. Raw meat or seafood can carry certain bacteria that a person with a weakened immune system can get sick from rather easily. When preparing meat for cooking, remember always to keep meat on a clean surface. Defrost meat in the refrigerator rather than on the countertop at room temperature. Bacteria can grow rapidly in a short period of time when meat is left out at room temperature. After meat is cooked, place it on a clean plate.

Eggs and Dairy Products

Stay away from raw, undercooked or sunny side up eggs. Also, any products that contain raw eggs such as Caesar salad dressing, hollandaise sauce or homemade eggnog should be avoided. When using dairy products, always use them before the expiration date. This includes products such as milk, yogurt, cottage cheese and sour cream. If cheese gets moldy, throw it out. Keep dairy products stored in the refrigerator. Do not leave them out for a long period of time. The bacteria in dairy products can grow very rapidly in a short period of time.

Fruits and Vegetables

Wash all fruits and vegetables well in cool clean water. Washing fruits and vegetables before eating them helps to remove any soil that may contain organisms that can make you ill. If possible, peel before eating raw fruits and vegetables to reduce the chances of coming in contact with such organisms.

Tips for Water Safety

Water safety is extremely important, because water can carry a variety of parasites, bacteria, and viruses. To protect yourself against these infections, here are some helpful hints:

- Do not drink water from lakes, ponds, rivers, or streams.
- You may choose to use a store-bought water filter at home for your drinking water.
- You can significantly reduce your risk of water-borne illness by using only boiled water for drinking and cooking.
- When traveling abroad in areas where sanitation is poor

or water safety is questionable, drink only bottled water and avoid ice or unpasteurized juices and drinks.

- Take your anti-HIV medications as prescribed to keep your immune system strong.

Normally water from the tap is safe to drink. However, people with HIV should not drink water straight from the tap because of their weakened immune system. It has been shown that individuals that have low CD4 counts are more susceptible to cryptosporidium and other germs than individuals that have strong immune systems from medication compliance. If you do have a weakened immune system and water from the tap needs to be used for drinking or cooking, it should be boiled first. A germ called cryptosporidium is a germ that can be found in water and can cause severe diarrhea and stomach cramps. Boiling water for about 1-2 minutes can kill this germ and several others. Drinking bottled water is an option that many people use instead of drinking tap water. Bottled water that is “distilled” or has been put through a process of “reverse osmosis” is considered safe. Bottled water that simply says “purified” or “filtered” does not necessarily mean that the water is free of cryptosporidium. Be aware that some bottled water companies do not put their water through a process to filter out cryptosporidium. Water filtered down to one micron or smaller is considered safe. To find out if a certain bottled water product filters out cryptosporidium you can call the National Sanitation Foundation at 1-800-673-8010. The most important thing to remember is that if you are visiting your doctor regularly, following a healthy diet, getting plenty of physical activity, sleeping, and taking your medications as prescribed you are less likely to get sick. If your immune system becomes weak, the precautions you have to take from becoming sick will become more burdensome.

TOBACCO AND HIV

Smoking and HIV

Smoking increases your risk of developing lung cancer, other cancers, heart disease, chronic obstructive pulmonary disease (COPD), asthma, and other diseases, and of dying early. For these reasons, smoking is an important health issue for everyone, but it is a greater concern for people living with HIV, who tend to smoke more than the general population.

About 1 in 5 U.S. adults smoke. Among adults living with HIV, the number of people who smoke is 2 to 3 times greater. Smoking has many negative health effects on people who are living with HIV. For example, smokers living with HIV:

- Are at higher risk than nonsmokers with HIV of developing lung cancer, head and neck cancers, cervical and anal cancers, and other cancers;
- Are more likely than nonsmokers with HIV to develop bacterial pneumonia, *Pneumocystis jiroveci* pneumonia, COPD, and heart disease;
- Are more likely than nonsmokers with HIV to develop conditions that affect the mouth, such as oral candidiasis and oral hairy leukoplakia; and
- Have a poorer response to antiretroviral therapy.

People with HIV who smoke have a greater chance of developing a life-threatening illness that leads to an AIDS diagnosis. People who smoke and live with HIV also have a shorter lifespan than those who don't.

Find Help with Quitting Smoking

Talk with your health care provider about programs and products that can help you quit smoking. Quitting smoking has major and immediate health benefits for tobacco users, including people living with HIV:

- Lowering your risk of lung cancer, heart disease, chronic obstructive pulmonary disease, and stroke

- Reducing HIV-related symptoms
- Having an improved quality of life.

If you use tobacco products and have HIV, your risk for serious short term problems may arise earlier. Many people with HIV think it will take years for smoking or using tobacco products to hurt them. They wonder if they will live long enough for that to happen. Medical treatments help people with HIV live longer so the long term risks of using tobacco do matter. All smokers risk heart disease, tobacco related cancers and other medical problems but these problems may happen sooner if someone has HIV.

Quitting tobacco lowers risks. Smoking and HIV are both hard on the lungs. If you quit, you're less likely to get:

- Bronchitis
- Bacterial pneumonia
- Asthma
- PCP (*pneumocystis carinii* pneumonia)
- Tuberculosis
- Emphysema
- Lung Cancer

HIV medicines and smoking both increase risk for heart problems and several types of cancer. Quitting reduces your risk for:

- Lesions in the mouth
- Heart disease
- Cervical and anal cancer
- Other cancers

If you have HIV and use tobacco, quitting is one of the best things you can do to protect your current and future health. The first step to quitting is to make a commitment to get started. Talk with your health care provider or doctor about quitting.

For free help quitting all forms of tobacco, call the Nevada Tobacco Quitline at 1-800-QUITNOW (1-800-784-8669). The Quitline offers one-on-one coaching and nicotine replacement therapy (patches, gum, or lozenges) for qualified individuals.

HOW TO PREVENT FURTHER SPREAD OF HIV

Taking HIV Medicine to Stay Healthy and Prevent Transmission

If you have HIV, it is important to start treatment as soon as possible after your diagnosis. HIV is treated using a combination of medicines to fight HIV infection that keep people living with HIV healthy. This is called combined antiretroviral therapy (cART).

cART involves taking a combination of HIV medicines every day, exactly as prescribed. These HIV medicines reduce the amount of virus in your body, which keeps your immune system functioning and prevents illness. Another benefit of reducing the amount of virus in your body is that it prevents transmission to others through sex, needle sharing, and from mother to child during pregnancy and birth. This is sometimes called “treatment as prevention.”

What Does the Science Show?

Since the introduction of cART in the mid-1990s, many research studies have shown both the health and prevention benefits of HIV treatment. Research has clearly proven that HIV treatment improves the health of people living with HIV and significantly reduces HIV-related deaths. HIV treatment has benefits whenever it is started, but starting treatment earlier — as soon after diagnosis as possible — is better. The Strategic Timing of Antiretroviral Treatment (START) study found in 2015 that there are significant health benefits for people living with HIV if they start taking cART sooner, rather than later. The results support treating individuals when their CD4+ T-cell count

— a key measure of immune system health — is higher, instead of waiting until their CD4+ count drops to lower levels. It also showed that cART reduced the risk of HIV transmission to uninfected sexual partners.

In 2016, another large study, HPTN 052, reported final results that showed that early HIV treatment reduced the risk of HIV transmission by 93 percent in heterosexual couples. Even more importantly, this study and the PARTNER study of heterosexual and gay couples found zero infections transmitted by someone living with HIV who had a suppressed viral load. Some cases of HIV transmission did occur in the study, but these new infections happened when the partner living with HIV had a viral load that was not fully suppressed. In these cases, the person living with HIV had just started ART, or treatment no longer was working and the virus was replicating.

These studies demonstrate that when someone living with HIV is on treatment and has had multiple viral load tests showing an undetectable or suppressed viral load, their risk of transmitting the virus to an HIV-negative sex partner is greatly reduced (and could possibly be as low as zero). This reduction in risk is just one more reason for people living with HIV to keep up with their doctor appointments, take their HIV medication every day, and to follow their doctor’s instructions about when they should have their viral load checked again.

Research has also demonstrated clearly that treatment with cART can improve the health of pregnant women living with HIV and greatly lower the chance that they will pass HIV to their baby before, during, or after birth. Today, if a woman takes HIV medicines as prescribed throughout

pregnancy, labor and delivery, and her baby is given HIV medicines for 4-6 weeks, the risk of transmitting HIV can be 1 percent or less. ART is most effective for preventing HIV transmission to babies when it is started before a woman becomes pregnant or as early as possible during pregnancy. Keep in mind, however, there are still great benefits for women who start taking ART during labor or shortly after birth.

How Does Being Durably Undetectable Affect My Risk of Transmitting HIV to a Sexual Partner?

People living with HIV who take antiretroviral medications daily as prescribed and who achieve and then maintain an undetectable viral load have effectively no risk of sexually transmitting the virus to an HIV-negative partner.

Three large multinational research studies involving couples in which one partner was living with HIV and the other was not — HPTN 052, PARTNER, and Opposites Attract — observed no HIV transmission to the HIV-negative partner while the partner with HIV had a durably undetectable viral load. These studies followed approximately 3,000 male-female and male-male couples over many years while they did not use condoms. Over the course of the PARTNER and Opposites Attract studies, couples reported engaging in more than 74,000 condomless episodes of vaginal or anal intercourse.

After I Begin HIV Treatment, How Long Does it Take for the Risk of Sexually Transmitting HIV to Become Effectively Zero?

There is effectively no risk of sexual transmission of HIV when the partner living with HIV has achieved an undetectable viral load and then maintained it for at least six months. Most people living with HIV who start taking antiretroviral therapy daily as prescribed achieve an undetectable viral load within one to six months after beginning treatment.

A person's viral load is considered "durably undetectable" when all viral load test results are undetectable for at least six months after their first undetectable test result. This means that most people will need to be on treatment for 7 to 12 months to have a durably undetectable viral load. It is essential to take every pill every day to maintain durably undetectable status.

Next Steps

The sooner you take steps to protect your health and prevent transmission of the virus, the better.

- If you've just been diagnosed with HIV, make an appointment with your health care provider to discuss taking the first steps to HIV treatment. Don't have a health care provider? Your HIV testing site can likely provide you with a referral to an HIV care provider. Or, if you have a regular doctor, talk to him or her about your test result and whether they can lead your HIV care. If your provider is not experienced in HIV care, ask them to refer you to another doctor whom they know and trust who can provide you with good care. You can also locate an HIV provider using HIV.gov's HIV Testing and Care Services Locator.
- If you were previously diagnosed but have stopped seeing your health care provider regularly or have stopped taking your medication, it is important to return to care, even if you have to start seeing a new provider.
- If you are taking ART, follow your health care provider's advice. Visit your health care provider regularly and always take your medicine as directed. This will give you the greatest chance of lowering your viral load to an undetectable viral load and keeping it there. Taking other actions, like using a condom consistently and correctly, can protect you from STDs and can lower your chances of transmitting HIV when used in combination with HIV medication.
- Post-exposure prophylaxis, or PEP, is a way to prevent HIV infection after a recent possible exposure to the virus. Following is some important information about PEP from CDC:

Post-Exposure Prophylaxis

What is PEP?

PEP (post-exposure prophylaxis) means taking antiretroviral medicines (ART) after being potentially exposed to HIV to prevent becoming infected.

PEP should be used only in emergency situations and must be started within 72 hours after a recent possible exposure to HIV. If you think you've recently been exposed to HIV during sex or through sharing needles and works to prepare drugs or if you've been sexually assaulted, talk to your health care provider or an emergency room doctor about PEP right away.

Pre-Exposure Prophylaxis

What is PrEP?

Pre-exposure prophylaxis (or PrEP) is when people at very high risk for HIV take HIV medicines daily to lower their chances of getting infected. A combination of two HIV medicines (tenofovir and emtricitabine), sold under the name Truvada® (pronounced tru vá duh), is approved for daily use as PrEP to help prevent an HIV-negative person from getting HIV from a sexual or injection-drug-using partner who is positive. Studies have shown that PrEP is highly effective for preventing HIV if it is used as prescribed. PrEP is much less effective when it is not taken consistently.

Why Take PrEP?

For those at very high risk for HIV, PrEP can significantly reduce your risk of HIV infection if taken daily. Daily PrEP use can lower the risk of getting HIV from sex by more than 90 percent and from injection drug use by more than 70 percent. You can combine additional strategies with PrEP to reduce your risk even further.

Should I Consider Taking PrEP?

PrEP is for people without HIV who are at very high risk for getting it from sex or injection drug use. The federal guidelines recommend that PrEP be considered for people who are HIV-negative and in an ongoing sexual relationship with an HIV-positive partner.

This recommendation also includes anyone who is not in a mutually monogamous relationship (only having sex with each other and not outside the relationship) with a partner who recently tested HIV-negative, and is a:

- Gay or bisexual man who has had anal sex without using a condom or been diagnosed with an STD in the past six months, or a
- Heterosexual man or woman who does not regularly use condoms during sex with partners of unknown HIV status who are at substantial risk of HIV infection (for example, people who inject drugs or women who have bisexual male partners).

PrEP is also recommended for people who have injected drugs in the past six months and have shared needles or works or been in drug treatment in the past six months.

If you have a partner who is HIV-positive and are considering getting pregnant, PrEP may be an option to help protect you and your baby from getting HIV infection while you try to get pregnant, during pregnancy, or while breastfeeding.

Is PrEP Safe?

PrEP can cause side effects like nausea in some people, but these generally subside over time. No serious side effects have been observed, and these side effects aren't life threatening. If you are taking PrEP, tell your health care provider about any side effects that are severe or do not go away.

How Can I Start PrEP?

PrEP can be prescribed only by a health care provider, so talk to yours to find out if PrEP is the right HIV prevention strategy for you. You must take PrEP daily for it to work. Also, you must take an HIV test before beginning PrEP to be sure you don't already have HIV and every three months while you're taking it, so you'll have to visit your health care provider regularly.

The cost of PrEP is covered by many health insurance plans, and a commercial medication assistance program provides free PrEP to people with limited income and no insurance to cover PrEP care.

GLOSSARY

Acute

Rapid and recent onset, usually involving intense symptoms.

Adherence

The extent to which a patient takes his/her medications according to the prescribed schedule (also called “compliance”).

ADAP (AIDS Drug Assistance Program)

A state-run program that assists individuals with medication if they do not have private insurance, cannot afford to pay for them, or do not qualify for other assistance programs (e.g. Medicaid).

AIDS (Acquired Immunodeficiency Syndrome)

A state of severe immune suppression brought about by infection with HIV.

Asymptomatic

Without symptoms; clinically normal.

ART (Anti-retroviral Therapy)

A class of drugs that inhibit retroviruses like HIV.

(CDC) Centers for Disease Control and Prevention

This federal agency is concerned with control of infectious diseases, such as HIV, in the U.S.

CD4 Cell

Also known as “T4” or “helper T cell,” the CD4 cell is the primary target of HIV. It performs critical functions such as signaling other parts of the immune system to respond to an infection. Treatment decisions are often based on CD4 count. Normal counts range from 500 to 1500.

CD4 Percent

The percent of all lymphocytes (including B cells, CD4 cells, and CD8 cells) that are CD4 cells. The normal value is 35 percent to 40 percent.

cART (Combination Anti-retroviral Therapy)

Use of more than one drug to treat a disease or infection.

OI (Opportunistic Infection)

Many organisms (viruses, bacteria, fungi, etc.) are held in check by the immune system. They often “colonize” the body (i.e. they are present but not noticed) without causing disease. When someone becomes immunocompromised for any reason (HIV infection, cancer, or treatment with immunosuppressive drugs, such as certain kinds of chemotherapy), some of these organisms take advantage of the “opportunity” by growing out of control and causing disease.

Perinatal

The word means “around birth” and is used to describe events that occur during labor and birth, and immediately after delivery. When used to describe HIV transmission, this word applies to transmission during pregnancy, childbirth, or through breast-feeding.

Resistance

Ability of an organism, such as HIV, to overcome the effects of a drug, such as AZT or a protease inhibitor.

Side Effect

Any unwanted effect of a drug or treatment (also called an “adverse event”). Some side effects are minor; others can be life-threatening.

LOCAL RESOURCES

Aid for AIDS of Nevada

1120 Almond Tree Ln. • Las Vegas, NV 89104
(702) 382-2326 • www.afanlv.org

AIDS Healthcare Foundation

- 1815 E. Lake Mead Blvd., Ste. 113
North Las Vegas, NV 89030
(702) 639-8110 • www.hivcare.org
- 3201 S. Maryland Pkwy., Ste. 218 • Las Vegas, NV 89109
(702) 862-8075 • www.hivcare.org

The Center

401 S. Maryland Pkwy. • Las Vegas NV, 89101
(702) 733-9800 • www.thecenterlv.org

Clark County Social Service

1600 Pinto Ln. • Las Vegas, NV 89106
(702) 455-4270 • www.clarkcountynv.gov/social-service

Community Counseling Center

714 E. Sahara Ave. • Las Vegas, NV 89104
(702) 369-8700 • www.cccofsn.org

Community Outreach Medical Center

1140 Almond Tree Ln. • Las Vegas, NV 89104
(702) 657-3873
www.communityoutreachmedicalcenter.org

Golden Rainbow

714 E. Sahara Ave. • Las Vegas, NV 89104
(702) 384-2899 • www.goldenrainbow.org

Help of Southern Nevada

1640 E. Flamingo Rd. • Las Vegas, NV 89119
(702) 369-4357 • www.helpsonv.org

Horizon Ridge Clinic

3160 W. Sahara Ave., Ste. A11 • Las Vegas, NV 89102
(702) 489-2889 • www.horizonridgeclinic.org

Las Vegas TGA Part A HIV/AIDS Program

www.lasvegasea.org

Legal Aid Center of Southern Nevada

725 E. Charleston Blvd. • Las Vegas, NV 89104
(702) 386-1070 • www.lacsn.org

Nevada State Welfare Division

- Las Vegas office (702) 486-5000
 - Henderson office (702) 486-1001
- dwss.nv.gov

Nevada's Ryan White Programs: A Resource Guide

dpbh.nv.gov/uploadedFiles/dpbhnavgov/content/Programs/HIV-Ryan/clientResourceBookletFINAL071017.pdf

Southern Nevada Adult Mental Health Services

6161 W. Charleston Blvd. • Las Vegas, NV 89146
(702) 486-6045
dpbh.nv.gov/Programs/Community_Services

Salvation Army

35 W. Owens Ave • North Las Vegas, NV 89030
(702) 399-4403 • www.salvationarmysouthernnevada.org

Social Security Administration

Toll Free 1-800-772-1213
(702) 248-8717 • www.ssa.gov

Southern Nevada Health District

280 S. Decatur Blvd. • Las Vegas, NV 89107
(702) 759-0702 • www.snhd.info

UMC Wellness Center

701 Shadow Ln. • Las Vegas, NV 89106
(702) 383-2691

WestCare

(702) 385-3330 • www.westcare.com

OTHER RESOURCES

AIDS Information Line

Nevada: 1-800-842-2437

AIDS Treatment Info. Services

Information about federal HIV/AIDS treatment guidelines

1-800-448-0440 (also Spanish) • aidsinfo.nih.gov

CDC National AIDS Hotline

1-800-232-4636

Diabetes Programs

▪ *Online prevention program:*

The Road to Diabetes Prevention

app.gethealthyclarkcounty.org/training/diabetes

▪ *Statewide in-person classes:*

www.nevadawellness.org/diabetes-education-support-offerings

Diabetes Statewide Resource Guide

Support groups, help with medications, free and low-cost clinics, diabetes programs, specialists, and more!

www.diabetesnv.org/resources-information/resource-directory

Healthy Lifestyles

- www.gethealthyclarkcounty.org
- www.vivasaludable.org

Heart Disease and Stroke Resources

▪ *Statewide resources:*

www.nevadawellness.org/community-wellness/resources

▪ *American Heart Association:*

www.heart.org

▪ *Southern Nevada Health District's*

Get Healthy Clark County website:

www.gethealthyclarkcounty.org/manage-your-risk/heart-disease/#million-hearts

HIV/AIDS Hotline

National Hotline: 1-800-232-4636

National Minority AIDS Council (NMAC)

Education, training and advocacy

1-202-853-0021 • www.nmac.org

Project Inform

Information, inspiration, and education for people living with HIV

1-800-822-7422

www.projectinform.org

SNHD Sexual Health Clinic

(702) 759-0702

Teenage AIDS Hotline

(6 p.m.–12 a.m. Fri. & Sat. only)

1-800-440-8336

Nevada Tobacco Quitline

Free telephone-based program to help you quit smoking and other tobacco products

1-800-QUITNOW (1-800-784-8669)

En Español: 1-855-DÉJELO-YA (1-855-335-3569)

www.nevadatobaccoquitline.com

**For more information,
please visit www.cdc.gov/hiv**

MY INFORMATION

Primary Doctor/Provider _____

Address _____

Phone _____

Other doctor _____

Address/Phone _____

Other doctor _____

Address/Phone _____

Case Manager _____

Agency name _____

Phone _____

Medications _____

I will see my doctor every _____ months, or according to my doctor's instruction.

Ryan White eligibility needs to be renewed every 6 months: Every _____ and _____ of the year

To renew, call SNHD at 702-759-0800 for an appointment with an Eligibility Worker

Notes _____



Undetectable = Untransmittable

U = U

