HEPATITIS C

General Information

What is hepatitis?

"Hepatitis" means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected.

Heavy alcohol use, toxins, some medications, and certain medical conditions can cause hepatitis. However, hepatitis is most often caused by a virus. In the United States, the most common types of viral hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C.

Most people who get infected with the Hepatitis C virus develop a chronic, or lifelong, infection.

What is Hepatitis C?

Hepatitis C is an infection of the liver that results from the Hepatitis C virus. **Acute** Hepatitis C refers to the first several months after someone is infected. Acute infection can range in severity from a very mild illness with few or no symptoms to a serious condition requiring hospitalization. For reasons that are not known, about 20% of people are able to clear, or get rid of, the virus without treatment in the first 6 months.

Unfortunately, most people who get infected are not able to clear the Hepatitis C virus and develop a chronic, or lifelong, infection. Over time, **chronic** Hepatitis C can cause serious health problems including liver disease, liver failure, and even liver cancer.

How is Hepatitis C spread?

Hepatitis C is usually spread when blood from a person infected with the Hepatitis C virus enters the body of someone who is not infected. Today, most people become infected with Hepatitis C by sharing needles, syringes, or any other equipment to inject drugs. Before widespread screening of the blood supply in 1992, Hepatitis C was also spread through blood transfusions and organ transplants. While uncommon, poor infection control has resulted in outbreaks in healthcare settings.

While rare, sexual transmission of Hepatitis C is possible. Having a sexually transmitted disease or HIV, sex with multiple partners, or rough sex appears to increase a person's risk for Hepatitis C. Hepatitis C can also be spread when getting tattoos and body piercings in unlicensed facilities, informal settings, or with non-sterile instruments. Also, approximately 6% of infants born to infected mothers will get Hepatitis C. Still, some people don't know how or when they got infected.

What are the symptoms of Hepatitis C?

Many people with Hepatitis C do not have symptoms and do not know they are infected. If symptoms occur, they can include: fever, feeling tired, not wanting to eat, upset stomach, throwing up, dark urine, grey-colored stool, joint pain, and yellow skin and eyes.

When do symptoms occur?

If symptoms occur with acute infection, they can appear anytime from 2 weeks to 6 months after infection. If symptoms occur with chronic Hepatitis C, they can take decades to develop. When symptoms appear with chronic Hepatitis C, they often are a sign of advanced liver disease.

Continued on next page

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How would you know if you have Hepatitis C?

The only way to know if you have Hepatitis C is to get tested. Doctors use a blood test, called a Hepatitis C Antibody Test, which looks for antibodies to the Hepatitis C virus. Antibodies are chemicals released into the bloodstream when someone gets infected. Antibodies remain in the bloodstream, even if the person clears the virus.

A positive or reactive Hepatitis C Antibody Test means that a person has been infected with the Hepatitis C virus at some point in time. However, a positive antibody test **does not** necessarily mean a person still has Hepatitis C. An additional test called a RNA test is needed to determine if a person is currently infected with Hepatitis C.

Who should get tested for Hepatitis C?

Testing for Hepatitis C is recommended for certain groups, including people who:

- Were born from 1945 – 1965
- Received donated blood or organs before 1992
- Have ever injected drugs, even if it was just once or many years ago
- Have certain medical conditions, such as chronic liver disease and HIV or AIDS
- Have abnormal liver tests or liver disease
- Have been exposed to blood from a person who has Hepatitis C
- Are on hemodialysis
- Are born to a mother with Hepatitis C

Can Hepatitis C be treated?

Yes. However, treatment depends on many different factors, so it is important to see a doctor experienced in treating Hepatitis C. New and improved treatments are available that can cure Hepatitis C for many people.

Testing is the only way to know if you have Hepatitis C.

How can Hepatitis C be prevented?

Although there is currently no vaccine to prevent Hepatitis C, there are ways to reduce the risk of becoming infected with the Hepatitis C virus.

- Avoid sharing or reusing needles, syringes or any other equipment to prepare and inject drugs, steroids, hormones, or other substances.
- Do not use personal items that may have come into contact with an infected person's blood, even in amounts too small to see, such as razors, nail clippers, toothbrushes, or glucose monitors.
- Do not get tattoos or body piercings from an unlicensed facility or in an informal setting.

For more information

Talk to your health professional, call your health department, or visit www.cdc.gov/hepatitis.

HEPATITIS A

General Information

What is hepatitis?

"Hepatitis" means inflammation of the liver. The liver is a vital organ that processes nutrients, filters the blood, and fights infections. When the liver is inflamed or damaged, its function can be affected.

Hepatitis is most often caused by a virus. In the United States, the most common types of viral hepatitis are Hepatitis A, Hepatitis B, and Hepatitis C. Heavy alcohol use, toxins, some medications, and certain medical conditions can also cause hepatitis.

What is Hepatitis A?

Hepatitis A is a highly contagious liver infection caused by the Hepatitis A virus. It can range in severity from a mild illness lasting a few weeks to a severe illness lasting several months.

Who is at risk?

Although anyone can get Hepatitis A, some people are at greater risk, such as those who:

- Travel to or live in countries where Hepatitis A is common
- Have sexual contact with someone who has Hepatitis A
- Are men who have sexual encounters with other men
- Use recreational drugs, whether injected or not
- Have clotting-factor disorders, such as hemophilia
- Are household members or caregivers of a person infected with Hepatitis A

How common is Hepatitis A?

Hepatitis A still occurs in the United States, although not as frequently as it once did. Over the last several decades, there has been more than a 90% decrease in Hepatitis A cases. New cases are now estimated to be around 3,000 each year. Many experts believe this decline is a result of the vaccination of children and people at risk for Hepatitis A. Many of the new cases, however, are from American travelers who got infected while traveling to parts of the world where Hepatitis A is common.

Hepatitis A can be prevented with a safe and effective vaccine.

How is Hepatitis A spread?

Hepatitis A is usually spread when a person ingests fecal matter—even in microscopic amounts—from contact with objects, food, or drinks contaminated by feces or stool from an infected person.

Hepatitis A can be spread when:

- An infected person does not wash his/her hands properly after going to the bathroom and then touches objects or food
- A caregiver does not properly wash his or her hands after changing diapers or cleaning up the stool of an infected person
- Someone engages in sexual activities with an infected person

Hepatitis A also can be spread through contaminated food or water. Contamination of food can happen at any point: growing, harvesting, processing, handling, and even after cooking. This most often occurs in countries where Hepatitis A is common.

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What are the symptoms of Hepatitis A?

Not everyone has symptoms. If symptoms develop, they usually appear 2 to 6 weeks after infection and can include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Grey-colored stools
- Joint pain
- Jaundice

Symptoms are more likely to occur in adults than in children. They usually last less than 2 months, although some people can be ill for as long as 6 months.

People can spread Hepatitis A even if they don't look or feel sick. Many children and some adults have no symptoms.

How is Hepatitis A diagnosed and treated?

A doctor can determine if a person has Hepatitis A by discussing his or her symptoms and taking a blood sample. To treat Hepatitis A, doctors usually recommend rest, adequate nutrition, fluids, and medical monitoring. Some people will need to be hospitalized. It can take a few months before people begin to feel better.

How serious is Hepatitis A?

Most people who get Hepatitis A feel sick for several months, but they usually recover completely and do not have lasting liver damage. Sometimes Hepatitis A can cause liver failure and death, although this is rare and occurs more commonly in people older than 50 and people with other liver diseases.

Can Hepatitis A be prevented?

Yes. The best way to prevent Hepatitis A is by getting vaccinated. Experts recommend the vaccine for all children, and people with certain risk factors and medical conditions. The vaccine is also recommended for travelers to certain international countries, even if travel occurs for short times or on closed resorts. The Hepatitis A vaccine is safe and effective and given as 2 shots, 6 months apart. Both shots are needed for long-term protection. Ask if your health plan will cover travel related vaccines. You can get vaccinated at your doctor's office, as well as travel clinics and other locations. Lower cost vaccination may be available at certain pharmacies and your local health department.

Who should get vaccinated against Hepatitis A?

Vaccination is recommended for certain groups, including:

- All children at age 1 year
- Travelers to countries where Hepatitis A is common
- Family and caregivers of adoptees from countries where Hepatitis A is common
- Men who have sexual encounters with other men
- Users of recreational drugs, whether injected or not
- People with chronic or long-term liver disease, including Hepatitis B or Hepatitis C
- People with clotting-factor disorders

For more information

Talk to your health professional, call your health department, or visit www.cdc.gov/hepatitis or www.cdc.gov/travel.

Publication No. 21-1072

HEPATITIS B
Are you at risk?

Who should be tested for Hepatitis B?

Testing for Hepatitis B is recommended for certain groups of people, including:

- People born in Asia, Africa, and other regions with moderate or high rates of Hepatitis B (see map)
- Unvaccinated people whose parents are from regions with high rates of Hepatitis B
- Anyone having sex with a person infected with Hepatitis B
- People who live with someone with Hepatitis B
- Men who have sexual encounters with other men
- People who inject drugs
- All pregnant women
- People with HIV infection
- People on hemodialysis
- People who receive chemotherapy or other types of immunosuppressive therapy

What is Hepatitis B?

Hepatitis B is a contagious liver disease that results from infection with the Hepatitis B virus. When first infected, a person can develop an "acute" infection, which can range in severity from a very mild illness with few or no symptoms to a serious condition requiring hospitalization. **Acute** Hepatitis B refers to the first 6 months after someone is exposed to the Hepatitis B virus. Some people are able to fight the infection and clear the virus. For others, the infection remains and leads to a "chronic," or lifelong, illness. **Chronic** Hepatitis B refers to the illness that occurs when the Hepatitis B virus remains in a person's body. Over time, the infection can cause serious health problems.

How is Hepatitis B spread?

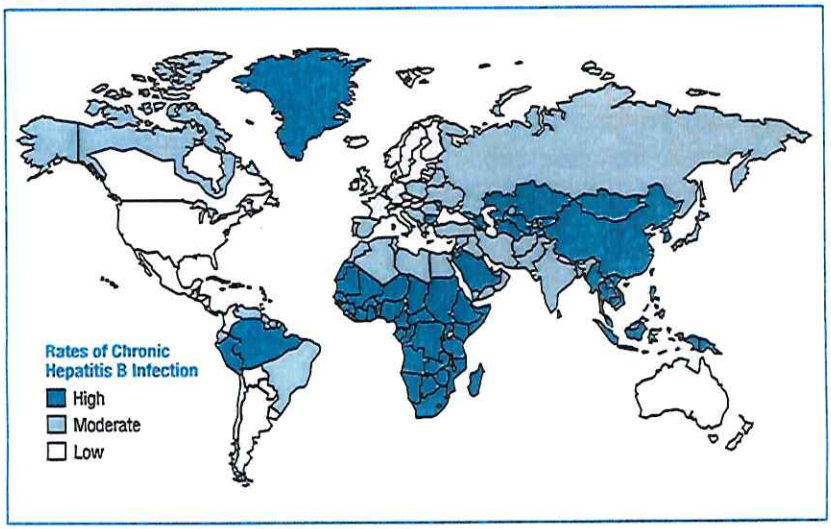
Hepatitis B is usually spread when blood, semen, or other body fluids from a person infected with the Hepatitis B virus enter the body of someone who is not infected. This can happen through having sex with an infected partner; sharing needles, syringes, or other injection drug equipment; or from direct contact with the blood or open sores of an infected person. Hepatitis B can also be passed from an infected mother to her baby at birth.

Approximately 1.2 million people in the United States and 350 million people worldwide have Hepatitis B. Most are unaware of their infection.

Is Hepatitis B common?

Yes. Hepatitis B is very common worldwide. Most people with Hepatitis B were infected with the virus at birth or during early childhood and developed a lifelong chronic infection. Many of those infected are unaware that they have Hepatitis B, especially since they may not have symptoms. As a result, they can unknowingly spread the disease to others, including people they live with, sexual partners, and—for women—their newborns.

Worldwide Rates of Chronic Hepatitis B



How is Hepatitis B treated?

For acute Hepatitis B, doctors usually recommend rest, adequate nutrition, fluids, and close medical monitoring. Some people may need to be hospitalized.

People with chronic infection should see a doctor experienced in treating Hepatitis B. He or she can determine the most appropriate medical care. People with chronic Hepatitis B need to be monitored on a regular basis, and some will benefit from medication. Several new treatments are available which can delay or reverse the effects of liver disease.

What can people with Hepatitis B do to take care of their liver?

People with chronic Hepatitis B should see a doctor regularly. They also should ask their health professional before taking any prescription or over-the-counter medications—including herbal supplements or vitamins—as they can potentially damage the liver. People with chronic Hepatitis B should also avoid alcohol since it can accelerate liver damage.

What are the symptoms of Hepatitis B?

Many people with Hepatitis B do not have symptoms and do not know they are infected. Even though a person has no symptoms, the virus can still be detected in the blood.

Symptoms of Hepatitis B can take up to 30 years to develop. Damage to the liver can silently occur during this time. When symptoms do appear, they often are a sign of advanced liver disease and can include fever, fatigue, abdominal pain, and jaundice.

How serious is Hepatitis B?

Over time, approximately 15%–25% of people with chronic Hepatitis B develop serious liver problems, including liver damage, cirrhosis, liver failure, and even liver cancer. Every year, approximately 3,000 people in the United States and more than 600,000 people worldwide die from Hepatitis B-related liver disease.

How is Hepatitis B diagnosed?

Doctors use one or more blood tests to diagnose Hepatitis B. These blood tests are not part of blood work typically done during regular physical exams.

Why is it important to get tested for Hepatitis B?

Testing is the best way to determine whether or not a person has Hepatitis B. Many people with Hepatitis B do not know they are infected since they do not look or feel sick. Learning if one is infected is key to diagnosing Hepatitis B early and getting appropriate medical care. Testing can also identify at-risk household members and sexual partners who, if uninfected, can then be vaccinated to protect them from getting Hepatitis B.

Can Hepatitis B be prevented?

Yes. The best way to prevent Hepatitis B is by getting vaccinated. For adults, the Hepatitis B vaccine is given as a series of 3 shots over a period of 6 months. The entire series is needed for long-term protection. Booster doses are not currently recommended.

For more information

Talk to your health professional, call your health department, or visit www.cdc.gov/hepatitis.

DEPARTMENT OF HEALTH & HUMAN SERVICES
Centers for Disease Control and Prevention
Division of Viral Hepatitis

Publication No. 21-1074

VACCINE INFORMATION STATEMENT

Hepatitis B Vaccine

What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1 What is hepatitis B?

Hepatitis B is a serious infection that affects the liver. It is caused by the hepatitis B virus.

- In 2009, about 38,000 people became infected with hepatitis B.
- Each year about 2,000 to 4,000 people die in the United States from cirrhosis or liver cancer caused by hepatitis B.

Hepatitis B can cause:

Acute (short-term) illness. This can lead to:

- loss of appetite
- diarrhea and vomiting
- tiredness
- jaundice (yellow skin or eyes)
- pain in muscles, joints, and stomach

Acute illness, with symptoms, is more common among adults. Children who become infected usually do not have symptoms.

Chronic (long-term) infection. Some people go on to develop chronic hepatitis B infection. Most of them do not have symptoms, but the infection is still very serious, and can lead to:

- liver damage (cirrhosis)
- liver cancer
- death

Chronic infection is more common among infants and children than among adults. People who are chronically infected can spread hepatitis B virus to others, even if they don't look or feel sick. Up to 1.4 million people in the United States may have chronic hepatitis B infection.

Hepatitis B virus is easily spread through contact with the blood or other body fluids of an infected person. People can also be infected from contact with a contaminated object, where the virus can live for up to 7 days.

- A baby whose mother is infected can be infected at birth;
- Children, adolescents, and adults can become infected by:
  - contact with blood and body fluids through breaks in the skin such as bites, cuts, or sores;
  - contact with objects that have blood or body fluids on them such as toothbrushes, razors, or monitoring and treatment devices for diabetes;
  - having unprotected sex with an infected person;
  - sharing needles when injecting drugs;
  - being stuck with a used needle.

2 Hepatitis B vaccine: Why get vaccinated?

Hepatitis B vaccine can prevent hepatitis B, and the serious consequences of hepatitis B infection, including liver cancer and cirrhosis.

Hepatitis B vaccine may be given by itself or in the same shot with other vaccines.

Routine hepatitis B vaccination was recommended for some U.S. adults and children beginning in 1982, and for all children in 1991. Since 1990, new hepatitis B infections among children and adolescents have dropped by more than 95%—and by 75% in other age groups.

Vaccination gives long-term protection from hepatitis B infection, possibly lifelong.

3 Who should get hepatitis B vaccine and when?

Children and adolescents

- Babies normally get 3 doses of hepatitis B vaccine:

1st Dose:	Birth
2nd Dose:	1-2 months of age
3rd Dose:	6-18 months of age

Some babies might get 4 doses, for example, if a combination vaccine containing hepatitis B is used. (This is a single shot containing several vaccines.) The extra dose is not harmful.

- Anyone through 18 years of age who didn't get the vaccine when they were younger should also be vaccinated.

Adults

- All unvaccinated adults at risk for hepatitis B infection should be vaccinated. This includes:
  - sex partners of people infected with hepatitis B,
  - men who have sex with men,
  - people who inject street drugs,
  - people with more than one sex partner,
  - people with chronic liver or kidney disease,
  - people under 60 years of age with diabetes,
  - people with jobs that expose them to human blood or other body fluids,

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- household contacts of people infected with hepatitis B,
- residents and staff in institutions for the developmentally disabled,
- kidney dialysis patients,
- people who travel to countries where hepatitis B is common,
- people with HIV infection.

- Other people may be encouraged by their doctor to get hepatitis B vaccine; for example, adults 60 and older with diabetes. Anyone else who wants to be protected from hepatitis B infection may get the vaccine.
- Pregnant women who are at risk for one of the reasons stated above should be vaccinated. Other pregnant women who want protection may be vaccinated.

Adults getting hepatitis B vaccine should get 3 doses—with the second dose given 4 weeks after the first and the third dose 5 months after the second. Your doctor can tell you about other dosing schedules that might be used in certain circumstances.

4 Who should not get hepatitis B vaccine?

- Anyone with a life-threatening allergy to yeast, or to any other component of the vaccine, should not get hepatitis B vaccine. Tell your doctor if you have any severe allergies.
- Anyone who has had a life-threatening allergic reaction to a previous dose of hepatitis B vaccine should not get another dose.
- Anyone who is moderately or severely ill when a dose of vaccine is scheduled should probably wait until they recover before getting the vaccine.

Your doctor can give you more information about these precautions.

Note: You might be asked to wait 28 days before donating blood after getting hepatitis B vaccine. This is because the screening test could mistake vaccine in the bloodstream (which is not infectious) for hepatitis B infection.

5 What are the risks from hepatitis B vaccine?

Hepatitis B is a very safe vaccine. Most people do not have any problems with it.

The vaccine contains non-infectious material, and cannot cause hepatitis B infection.

Some mild problems have been reported:

- Soreness where the shot was given (up to about 1 person in 4).
- Temperature of 99.9°F or higher (up to about 1 person in 15).

Severe problems are extremely rare. Severe allergic reactions are believed to occur about once in 1.1 million doses.

A vaccine, like any medicine, could cause a serious reaction. But the risk of a vaccine causing serious harm, or death, is extremely small. More than 100 million people in the United States have been vaccinated with hepatitis B vaccine.

6 What if there is a serious reaction?

What should I look for?

- Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or behavior changes.

  Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would start a few minutes to a few hours after the vaccination.

What should I do?

- If you think it is a severe allergic reaction or other emergency that can't wait, call 9-1-1 or get the person to the nearest hospital. Otherwise, call your doctor.
- Afterward, the reaction should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor might file this report, or you can do it yourself through the VAERS web site at **www.vaers.hhs.gov**, or by calling **1-800-822-7967**.

VAERS is only for reporting reactions. They do not give medical advice.

7 The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling **1-800-338-2382** or visiting the VICP website at **www.hrsa.gov/vaccinecompensation.**

8 How can I learn more?

- Ask your doctor.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636 (1-800-CDC-INFO)** or
  - Visit CDC's website at **www.cdc.gov/vaccines**

Vaccine Information Statement (Interim)

Hepatitis B Vaccine

2/2/2012

Office Use Only

42 U.S.C. § 300aa-26

CDC FACT SHEET

HIV and AIDS in America: A Snapshot

National Overview

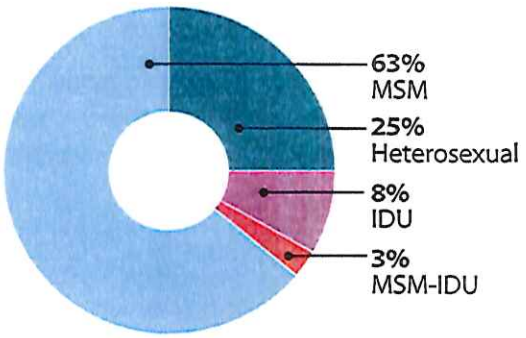
- Currently, 1.2 million people are living with HIV in the United States (an estimated 1,201,100 adults and adolescents), and nearly one in seven of those (14 percent) are unaware of their infections.
- Despite increases in the total number of people living with HIV in the United States in recent years, the annual number of new infections has remained relatively stable overall.
- However, HIV infections continue at far too high a level, with approximately 50,000 Americans becoming newly infected with HIV each year.
- More than 13,000 people with AIDS still die each year in the United States.

Heavily Affected Populations

By Route of Transmission

- **Men Who Have Sex With Men (MSM)[1]:** By risk group, gay and bisexual men of all races remain the population most severely impacted by HIV:
  - MSM represent just 2 percent of the U.S. population, but account for 63 percent of all new HIV infections in the United States each year, as well as more than half of people living with HIV (54 percent).
  - The number of new infections among the youngest MSM (aged 13–24) increased 22 percent, from 7,200 infections in 2008 to 8,800 in 2010. Young black MSM continue to bear the heaviest burden, accounting for more than half (55 percent) of new infections among young MSM (4,800).

Estimated New HIV Infections, 2010, by Transmission Category



  - White MSM account for the largest number of annual new HIV infections of any group in the United States, followed by black MSM and Hispanic MSM.
  - The rate of new HIV diagnoses among MSM in the United States is more than 44 times that of other men (range: 522–989 per 100,000 MSM vs. 12 per 100,000 other men), and more than 40 times that of women (13 per 100,000 women).
- **Heterosexuals and Injection Drug Users:** Heterosexuals and injection drug users also continue to be affected by HIV:
  - Individuals infected through heterosexual contact account for 25 percent of annual new HIV infections and 25 percent of people living with HIV.
  - Injection drug users represent 8 percent of annual new HIV infections and 15 percent of those living with HIV.

[1] The term men who have sex with men is used in CDC surveillance systems. It indicates the behaviors that transmit HIV infection, rather than how individuals self-identify in terms of their sexuality.

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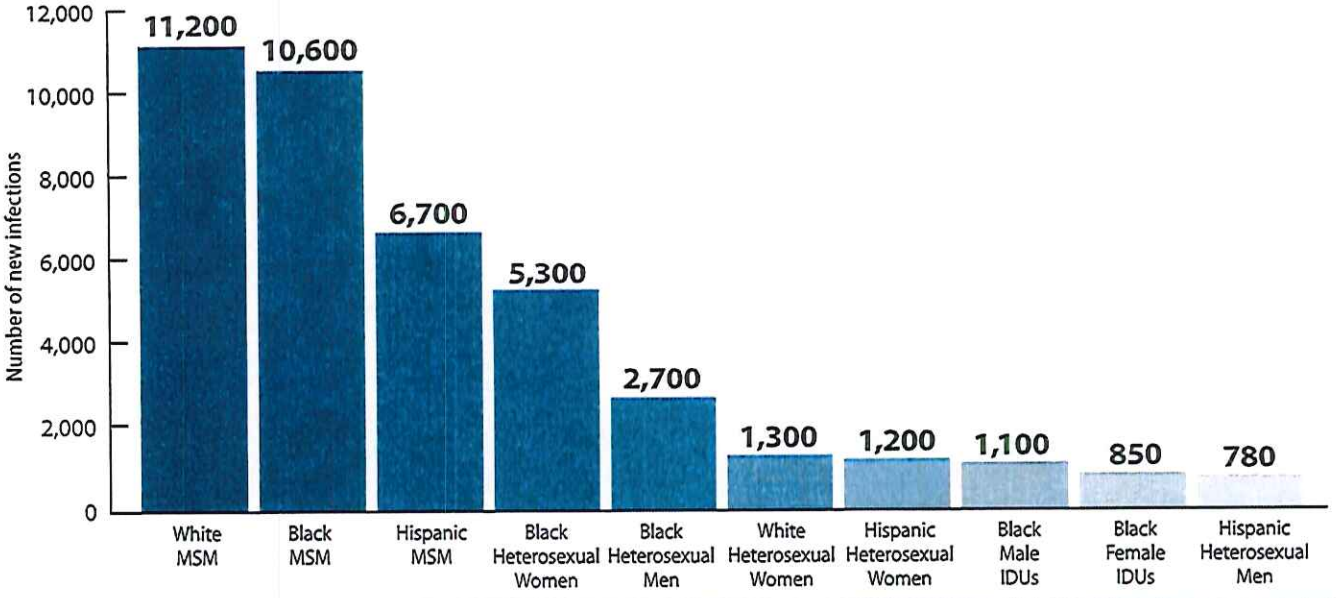
NOVEMBER 2014

By Race/Ethnicity

- **African Americans:** Among racial/ethnic groups, African Americans face the most severe burden of HIV and AIDS in the nation:
  - While blacks represent approximately 14 percent of the U.S. population, the latest CDC estimates show that they account for almost half of all new infections in the United States each year (44 percent) as well as more than one third of all people living with HIV (41 percent).
  - At some point in their lives, approximately one in 16 black men will be diagnosed with HIV, as will one in 32 black women.
  - The rate of new HIV infections for black men is more than six times as high as that of white men, and more than two times that of Hispanic men and of black women.
  - Comparing 2008 to 2010, new HIV infections among black women decreased 21 percent (from 7,700 to 6,100); however, black women account for the vast majority (64 percent) of all new infections among women overall and the HIV incidence rate for black women remains 20 times as high as that of white women, and almost five times that of Hispanic women.
  - HIV infections among blacks overall have been roughly stable in recent years.

- **Latinos:** Latinos are also disproportionately impacted:
  - Hispanics represent approximately 17 percent of the population and the latest CDC estimates show that they account for 20 percent of people living with HIV in the United States, as well as 21 percent of new infections each year.
  - At some point in their lives, approximately one in 36 Hispanic men will be diagnosed with HIV, as will one in 106 Hispanic women.
  - The rate of new HIV infections among Hispanic men is almost three times that of white men, and the rate among Hispanic women is more than four times that of white women.
  - HIV infections among Hispanics overall have been roughly stable in recent years.

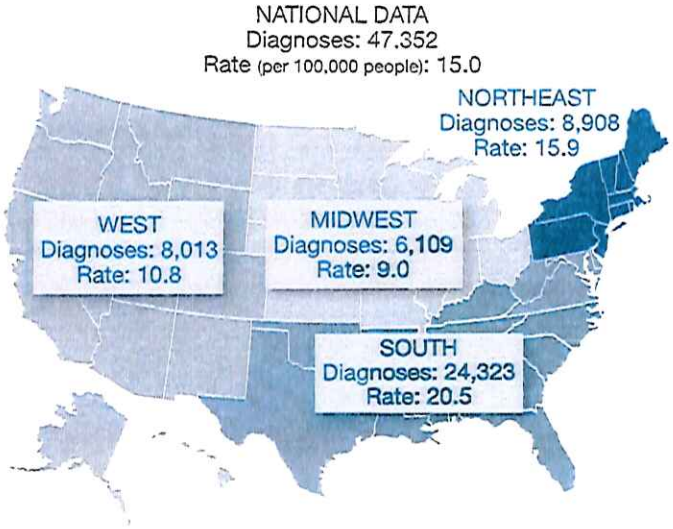
Estimated New HIV Infections in the United States, 2010, for the Most-Affected Subpopulations



If you are a member of the news media and need more information, please visit www.cdc.gov/nchhstp/Newsroom or contact the News Media Line at CDC's National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention: 404-639-8895 or NCHHSTPMediaTeam@cdc.gov.

HIV remains mainly an urban disease, with the majority of individuals diagnosed with HIV in 2013 residing in areas with 500,000 or more people. Areas hardest hit (by ranking of HIV cases per 100,000 people) include Atlanta, GA; Miami, FL; Washington DC; Baton Rouge and New Orleans, LA; Memphis, TN and Baltimore, MD.[3]

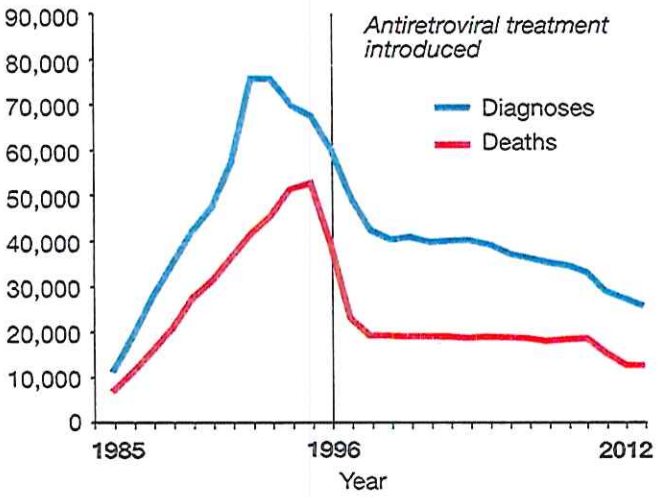
HIV Diagnoses, 2013



Care and Prevention for People Living with HIV

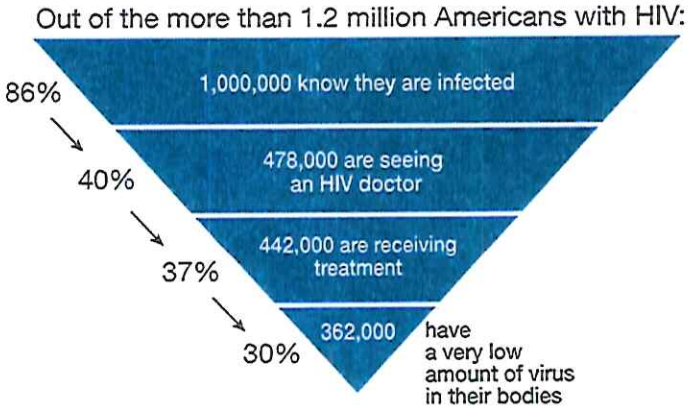
Advances in treatment: In the mid-1990s, the introduction of highly effective antiretroviral therapy greatly extended the life expectancy of people living with HIV and caused a dramatic drop in AIDS deaths. However, without medical care, HIV still leads to AIDS and early death. Since the beginning of the epidemic, more than 650,000 people with AIDS in the United States have died, and even today, more than 13,000 people with AIDS in the United States die each year.[3]

AIDS Diagnoses and Deaths, 1985-2012



Engagement in care: AIDS-related deaths occur when people who are infected do not receive the testing, treatment, and care they need. Treatment can help people with HIV live longer, healthier lives and also greatly reduces the chances of passing HIV on to others. However, only 30 percent of people with HIV in the United States are successfully keeping their virus under control.[4]

Percentage of HIV-Infected Individuals Engaged in Selected Stages of the Continuum of HIV Care, 2011



Late diagnosis: Far too many people are diagnosed too late to fully benefit from available life-extending treatment. Among those initially diagnosed with HIV infection during 2012, one-quarter (24 percent) were simultaneously diagnosed with AIDS, indicating they were likely infected for many years without knowing it.[1] These late diagnoses represent missed opportunities for treatment and prevention.

TODAY'S HIV/AIDS EPIDEMIC

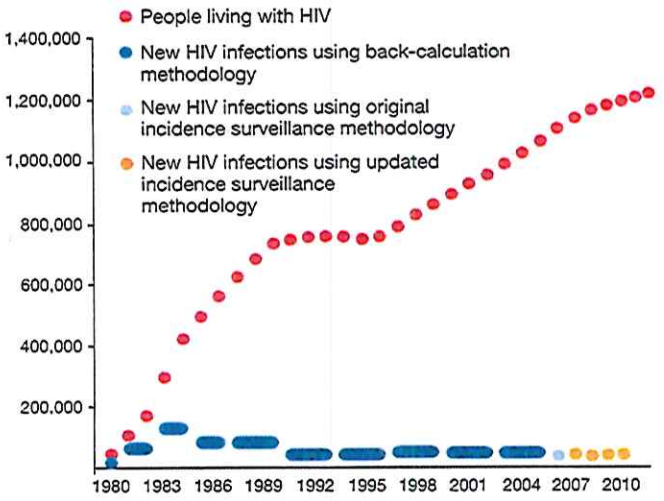
CDC estimates that 1.2 million people in the United States are living with HIV – and nearly one in seven of those are not aware that they are infected.[1]

Approximately 50,000 people become newly infected each year.[2] In addition to recognized risk behaviors, a range of social and economic factors places some Americans at increased risk for HIV infection. Prevention efforts have helped keep the rate of new infections stable in recent years, but continued growth in the number of people living with HIV ultimately may lead to more new infections if prevention, care, and treatment efforts are not targeted to those at greatest risk.

The Scope and Impact of HIV in the United States

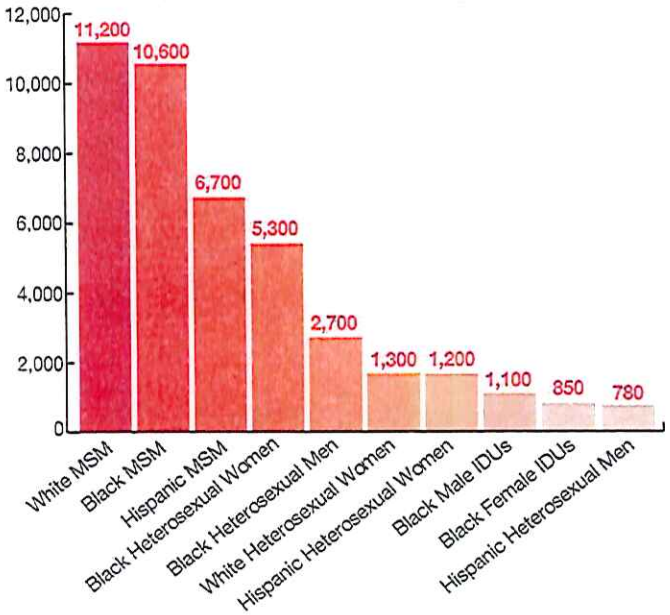
New infections and overall burden: Since the height of the epidemic in the mid-1980s, the annual number of new HIV infections in the United States has been reduced by more than two-thirds, from roughly 130,000 to approximately 50,000 annually.[2] As a result of treatment advances since the late 1990s, the number of people living with HIV (HIV prevalence) has increased dramatically.[1] Yet, despite increasing HIV prevalence and more opportunities for HIV transmission, the number of new infections has been relatively stable since the mid-1990s.[2]

HIV Prevalence and New Infections, 1980-2011



Heavily affected subgroups: By transmission category, the largest number of new HIV infections currently occurs among men who have sex with men (MSM) of all races and ethnicities, followed by African American heterosexual women. By race/ethnicity overall, African Americans are the most heavily affected, followed by Latinos.[2]

U.S. Subpopulations with the Largest Numbers of Estimated New HIV Infections, 2010



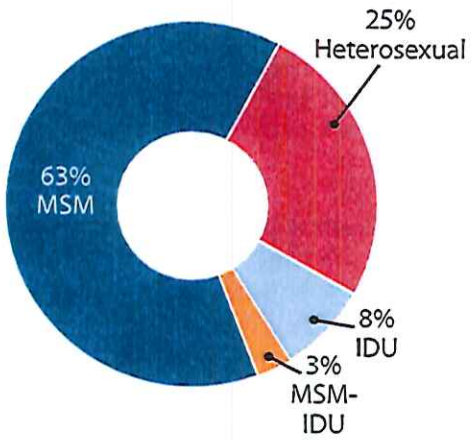
Geography of the U.S. epidemic: Recent data on HIV diagnosis make it clear that HIV touches every corner of the United States. According to these data, by region, both the number of people diagnosed with HIV and the rate of HIV diagnoses (number of diagnoses per 100,000 people) is highest in the South (24,323 diagnoses or 20.5 per 100,000 people). Next highest is the Northeast (8,908; 15.9), followed by the West (8,013; 10.8) and the Midwest (6,109; 9.0).

From 2009 to 2013, the rate of HIV diagnoses in the West decreased; while rates in the Northeast, the South, and the Midwest remained stable.

Populations at Higher Risk for HIV: Route of Transmission

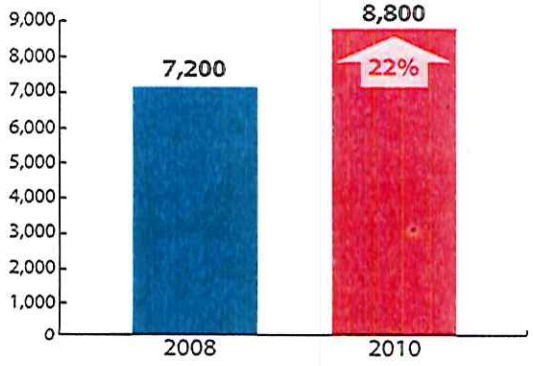
While more than half of new HIV infections occur among gay and bisexual men, heterosexuals and injection drug users (IDUs) also continue to be significantly affected by HIV.[2]

Estimated New HIV Infections by Route of Transmission, 2010



Gay and bisexual men: Men who have sex with men (MSM) remain the group most heavily affected by HIV in the United States. CDC estimates that MSM represent approximately 4 percent of the male population in the United States[5] but male-to-male sex accounted for more than three-fourths (78 percent) of new HIV infections among men and nearly two-thirds (63 percent) of all new infections in 2010 (29,800). White MSM continue to represent the largest number of new HIV infections among MSM (11,200), followed closely by black MSM (10,600) and Hispanic MSM (6,700).[2]

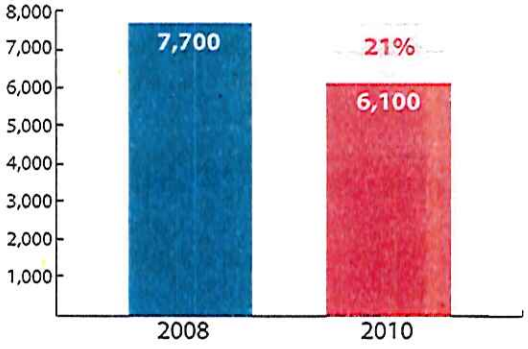
Estimated New HIV Infections among MSM Aged 13-24, 2008-2010



Young MSM: The number of new infections among the youngest MSM (aged 13-24) increased 22 percent, from 7,200 infections in 2008 to 8,800 in 2010. Young black MSM continue to bear the heaviest burden, accounting for more than half (55 percent) of new infections among young MSM (4,800). In fact, young black MSM now account for more new infections than any other subgroup by race/ethnicity, age, and sex. There was a 12 percent increase in HIV incidence among MSM overall, from 26,700 in 2008 to 29,800 in 2010.[2]

Heterosexuals: Heterosexuals accounted for 25 percent of estimated new HIV infections in 2010 (12,100). About two-thirds (66 percent) of those infected through heterosexual sex were women. The number of new HIV infections among females attributed to heterosexual contact decreased by 18 percent, from 9,800 in 2008 to 8,000 in 2010, largely because of a drop in infections among black heterosexual women. Comparing 2008 to 2010, new HIV infections among black women decreased 21 percent, from 7,700 in 2008 to 6,100 in 2010. While this decline is encouraging, black women continue to be far more affected by HIV than women of other races/ethnicities and account for nearly two-thirds (64 percent) of all new infections among women.[2]

Estimated New Infections among Black Women, 2008-2010



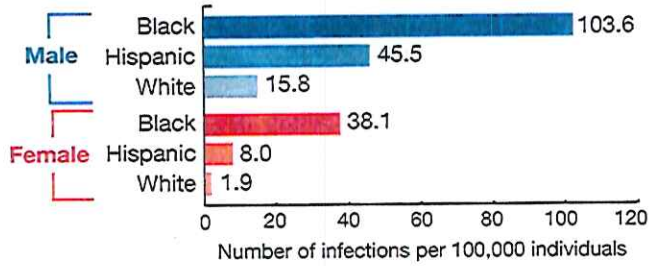
Injection drug users: IDUs represent 8 percent of new HIV infections and 16 percent of people currently living with HIV.[1,2] African Americans account for the greatest numbers of new infections among IDUs.[2]

Transgender people: Transgender individuals are also heavily affected by HIV. A 2008 review of HIV studies among transgender women found that, on average, 28 percent tested positive for HIV.[6]

Populations at Higher Risk for HIV: Racial and Ethnic Health Inequities

In part due to a number of social and economic challenges, such as lack of access to care, discrimination, stigma, homophobia, and poverty, people of color have higher rates of HIV infection than whites (see "Socioeconomic Factors Affecting HIV Risk," below, for more information).

Estimated Rate of New HIV Infections, 2010



African Americans: Among racial/ethnic groups, African Americans face the most severe burden of HIV and AIDS in the nation. While African Americans represent 14 percent of the U.S. population, they account for almost half of new infections (44 percent) and 41 percent of people living with HIV.[1,2]

Latinos*: Latinos are also disproportionately affected by HIV, representing approximately 17 percent of the total U.S. population, but accounting for 21 percent of all new HIV infections and 20 percent of people living with HIV.[1,2]

*Data on national estimates of HIV prevalence and new infections includes individuals who identify as "Hispanic" or "Latino" on reporting forms.

Socioeconomic Factors Affecting HIV Risk

Reducing the toll of HIV on communities that are disproportionately affected requires confronting the complex social, economic, and environmental factors that fuel the epidemic in these communities.

- **Poverty** can limit access to health care, HIV testing, and medications that can lower levels of HIV in the blood and help prevent transmission risk. In addition, those who cannot afford the basics in life may end up in circumstances that increase their HIV risk.
- **Discrimination, stigma and homophobia:** Far too prevalent in many communities, these factors may discourage individuals from seeking testing, prevention, and treatment services.
- **Prevalence of HIV and other STDs in a community:** More people living with HIV or infected with STDs can increase an individual's risk of infection with every sexual encounter, especially if, within those communities, people select partners who are from the same ethnicity.
- **Higher rates of undiagnosed/untreated STDs** can increase the risk of both acquiring and transmitting HIV.
- **Higher rates of incarceration among men** can disrupt social and sexual networks in the broader community and decrease the number of available partners for women, which can fuel the spread of HIV.
- **Language barriers and concerns about immigration status** present additional prevention challenges.

While the impact of such factors can be difficult to quantify, one recent analysis documents the association of some critical socioeconomic characteristics with risk for HIV infection. The study found that poverty was a key factor associated with HIV infection among inner-city heterosexuals. Within the low income urban areas included in the analysis, individuals living below the poverty line were twice as likely to be HIV-infected as those who lived in the same community but lived above the poverty line (2.3 percent prevalence vs. 1.0 percent), and prevalence for both groups was far higher than the national average (0.45 percent). Within these high poverty areas, HIV prevalence was high and comparable across racial/ethnic groups. In addition to being more common in low income households, HIV infection was also more common among those who were unemployed and had less than a high school education.[7]

These findings underscore the urgent need to prioritize and target HIV prevention efforts in disproportionately affected communities and ensure that both individual and social determinants of risk are considered in the design and implementation of prevention efforts.

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[7] CDC. Characteristics associated with HIV infection among heterosexuals in urban areas with high AIDS prevalence – 24 cities, United States, 2006-2007. *MMWR* 2011;60(31)1045-49.

Syphilis - CDC Fact Sheet

Syphilis is a sexually transmitted disease (STD) that can have very serious complications when left untreated, but it is simple to cure with the right treatment.

What is syphilis?

Syphilis is an STD that can cause long-term complications if not treated correctly. Symptoms in adults are divided into stages. These stages are primary, secondary, latent, and late syphilis.

How is syphilis spread?

You can get syphilis by direct contact with a syphilis sore during anal, vaginal, or oral sex. Sores can be found on the penis, vagina, anus, in the rectum, or on the lips and in the mouth. Syphilis can also be spread from an infected mother to her unborn baby.

What does syphilis look like?

Syphilis has been called 'the great imitator' because it has so many possible symptoms, many of which look like symptoms from other diseases. The painless syphilis sore that you would get after you are first infected can be confused for an ingrown hair, zipper cut, or other seemingly harmless bump. The non-itchy body rash that develops during the second stage of syphilis can show up on the palms of your hands and soles of your feet, all over your body, or in just a few places. You could also be infected with syphilis and have very mild symptoms or none at all.

How can I reduce my risk of getting syphilis?

The only way to avoid STDs is to not have vaginal, anal, or oral sex.

If you are sexually active, you can do the following things to lower your chances of getting syphilis:

- Being in a long-term mutually monogamous relationship with a partner who has been tested and has negative STD test results; and
- Using latex condoms the right way every time you have sex.

Example of a primary syphilis sore.

Washing your genitals, urinating, or douching after sex will not protect you from getting syphilis.

Am I at risk for syphilis?

Any sexually active person can get syphilis through unprotected anal, vaginal, or oral sex. Have an honest and open talk with your health care provider and ask whether you should be tested for syphilis or other STDs. You should get tested regularly for syphilis if you are pregnant, are a man who has sex with men, have HIV infection, and/or have partner(s) who have tested positive for syphilis.

I'm pregnant. How does syphilis affect my baby?

If you are pregnant and have syphilis, you can give the infection to your unborn baby. Having syphilis can lead to a low birth weight baby. It can also make it more likely you will deliver your baby too early or stillborn (a baby born dead).

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Division of STD Prevention

CDC

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To protect your baby, **you should be tested for syphilis during your pregnancy and at delivery and receive immediate treatment if you test positive.**

An infected baby may be born without signs or symptoms of disease. However, if not treated immediately, the baby may develop serious problems within a few weeks. Untreated babies can have health problems such as cataracts, deafness, or seizures, and can die.

How do I know if I have syphilis?

Symptoms of syphilis in adults can be divided into stages:

Primary Stage

During the first (primary) stage of syphilis, you may notice a single sore, but there may be multiple sores. The sore is the location where syphilis entered your body. The sore is usually firm, round, and painless. Because the sore is painless, it can easily go unnoticed. The sore lasts 3 to 6 weeks and heals regardless of whether or not you receive treatment. Even though the sore goes away, you must still receive treatment so your infection does not move to the secondary stage.

Secondary rash from syphilis on palms of hands.

Secondary Stage

During the secondary stage, you may have skin rashes and/or sores in your mouth, vagina, or anus (also called mucous membrane lesions). This stage usually starts with a rash on one or more areas of your body. The rash can show up when your primary sore is healing or several weeks after the sore has healed. The rash can look like rough, red, or reddish brown spots on the palms of your hands and/or the bottoms of your feet. The rash usually won't itch and it is sometimes so faint that you won't notice it. Other symptoms you may have can include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches, and fatigue (feeling very tired). The symptoms from this stage will go away whether or not you receive treatment. Without the right treatment, your infection will move to the latent and possibly late stages of syphilis.

Latent and Late Stages

The latent stage of syphilis begins when all of the symptoms you had earlier disappear. If you do not receive treatment, you can continue to have syphilis in your body for years without any signs or symptoms. Most people with untreated syphilis do not develop late stage syphilis. However, when it does happen it is very serious and would occur 10–30 years after your infection began. Symptoms of the late stage of syphilis include difficulty coordinating your muscle movements, paralysis (not able to move certain parts of your body), numbness, blindness, and dementia (mental disorder). In the late stages of syphilis, the disease damages your internal organs and can result in death.

Secondary rash from syphilis on torso

A syphilis infection is called an 'early' case if a patient has been infected for a year or less, such as during the primary or secondary stages of syphilis. People who have 'early' syphilis infections can more easily spread the infection to their sex partners. The majority of early syphilis cases are currently found among men who have sex with men, but women and unborn children are also at risk of infection.

How will my doctor know if I have syphilis?

Most of the time, a blood test can be used to test for syphilis. Some health care providers will diagnose syphilis by testing fluid from a syphilis sore.

Darkfield micrograph of *Treponema pallidum*

Can syphilis be cured?

Yes, syphilis can be cured with the right antibiotics from your health care provider. However, treatment will not undo any damage that the infection has already done.

I've been treated. Can I get syphilis again?

Having syphilis once does not protect you from getting it again. Even after you've been successfully treated, you can still be re-infected. Only laboratory tests can confirm whether you have syphilis. Follow-up testing by your health care provider is recommended to make sure that your treatment was successful.

Because syphilis sores can be hidden in the vagina, anus, under the foreskin of the penis, or in the mouth, it may not be obvious that a sex partner has syphilis. Unless you know that your sex partner(s) has been tested and treated, you may be at risk of getting syphilis again from an untreated sex partner.

Where can I get more information?

Sexually Transmitted Diseases
http://www.cdc.gov/std/

Syphilis
http://www.cdc.gov/std/syphilis/

Syphilis and MSM Fact Sheet
http://www.cdc.gov/std/syphilis/STDFact-MSM-Syphilis.htm

STDs and Pregnancy Fact Sheet
http://www.cdc.gov/std/pregnancy/STDFact-Pregnancy.htm

STD information and referrals to STD Clinics
CDC-INFO Contact Center
1-800-CDC-INFO (1-800-232-4636)
Contact www.cdc.gov/info