

2 Hour HIV/AIDS Course for Cosmetology Professionals

Two (2) Continuing Education Hours Course #0501272

Approved Continuing Education for Cosmetology Professionals

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HIV / AIDS & Other Communicable Diseases

Introduction

This course covers defining HIV and AIDS, and Hepatitis, how they are transmitted, infection control and prevention, how the diseases are managed in the healthcare system, and attitudes and behaviors toward persons with HIV and AIDS.

What is HIV

HIV stands for human immunodeficiency virus. It is the virus that can lead to acquired immunodeficiency syndrome, or AIDS, 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 antiretroviral therapy or ART.

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.

In the United States, most people with HIV do not develop AIDS because effective ART stops the disease progression. People with HIV who are diagnosed early can have a life span that is about the same as someone like them 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.

Is There a Cure for HIV

No effective cure currently exists for HIV. But with proper medical care, HIV can be controlled.

Transmission of HIV

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, pre-seminal fluid, 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 for getting HIV 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.
- By being stuck with an HIVcontaminated 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. To learn more about how to lower your risk, see CDC's Oral Sex and HIV Risk.
- 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 bloodcontaminated 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. HIV is not spread through saliva.

Can You Get HIV from Casual Contact, Using a Public Space, or from a Mosquito Bite?

No. HIV is NOT transmitted:

 By hugging, shaking hands, sharing toilets, sharing dishes, or closed-mouth or "social" kissing with someone who is HIV-positive.

- Through saliva, tears, or sweat that is not mixed with the blood of an HIVpositive person.
- By mosquitoes, ticks or other bloodsucking insects.
- Through the air.

Stages and Symptoms of HIV Infection

The three stages of HIV infection are: (1) acute HIV infection, (2) clinical latency, and (3) AIDS (acquired immunodeficiency syndrome). 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). Not all individuals will experience these symptoms.

Acute HIV Infection Stage

Within 2 to 4 weeks after infection, many, but not all, people develop flu-like symptoms, often described as "the worst flu ever." Symptoms can include fever, swollen glands, sore throat, rash, muscle and joint aches and pains, and headache. This is called "acute retroviral syndrome" (ARS) or "primary HIV infection," and it's the body's natural response to the HIV infection. People who think that they may have been infected recently and are in the acute stage of HIV infection should seek medical care right away. Starting treatment at this stage can have significant benefits to your health.

During the acute HIV infection stage, you are at very high risk of transmitting HIV to

your sexual or needle-sharing partners because the levels of HIV in your blood stream are extremely high. For this reason, it is very important to take steps to reduce your risk of transmission.

Symptoms of Acute HIV Infection

During this early period of infection, large amounts of virus are being produced in your body. The virus uses CD4 cells to replicate and destroy them in the process. Because of this, your CD4 cells can fall rapidly. Eventually your immune response will begin to bring the level of virus in your body back down to a level called a viral set point, which is a relatively stable level of virus in your body. At this point, your CD4 count begins to increase, but it may not return to pre-infection levels.

About 40% to 90% of people have flu-like symptoms within 2-4 weeks after HIV infection. Flu like symptoms can include:

- I. Fever
- 2. Chills
- 3. Rash
- 4. Night sweats
- 5. Muscle aches
- 6. Sore throat
- 7. Fatigue
- 8. Swollen lymph nodes
- 9. Mouth ulcers

Clinical Latency Stage

After the acute stage of HIV infection, the disease moves into a stage called the "clinical latency" stage. "Latency" means a period where a virus is living or developing in a person without producing symptoms.

During the clinical latency stage, the HIV virus continues to reproduce at very low levels, even if it cannot be detected with standard laboratory tests. If you take ART, you may live with clinical latency for decades and never progress to AIDS because treatment helps keep the virus in check.

Symptoms of Clinical Latency Stage

During the clinical latency stage, people who are infected with HIV experience no symptoms, or only mild ones.

People in this symptom-free stage are still able to transmit HIV to others. The risk of transmission is greatly reduced by HIV treatment.

AIDS Infection Stage

This is the stage of HIV infection that occurs when your immune system is badly damaged, and you become vulnerable to opportunistic infections. When the number of your CD4 cells falls below 200 cells per cubic millimeter of blood (200 cells/mm3), you are considered to have progressed to AIDS.

Without treatment, people who progress to AIDS typically survive about 3 years.

Once you have a dangerous opportunistic illness, life-expectancy without treatment falls to about 1 year.

Symptoms of Clinical Latency Stage

The late stage of HIV infection symptoms can include:

- I. Rapid weight loss
- 2. Recurring fever
- 3. Profuse night sweats
- 4. Extreme and unexplained tiredness
- 5. Prolonged swelling of the lymph glands in the armpits, groin, or neck
- 6. Diarrhea that lasts for more than a week
- 7. Sores of the mouth, anus, or genitals
- 8. Pneumonia
- 9. Red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids
- 10. Memory loss, depression, and other neurologic disorders
- II. White spots on tongue
- 12. Dry, flaky skin

You cannot rely on symptoms to tell whether you have HIV.

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.

People living with HIV may progress through these stages at different rates, depending on a variety of factors, including their genetic makeup, how healthy they were before they were infected, how much virus they were exposed to and its genetic characteristics, how soon after infection they are diagnosed and linked to care and treatment, whether they see their healthcare provider regularly and take their HIV medications as directed, and different health-related choices they make, such as decisions to eat a healthful diet, exercise, and not smoke.

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.

Knowing your status is important because it helps you make healthy decisions to prevent getting or transmitting HIV.

Testing for HIV

If you get HIV, your body will usually begin to develop antibodies within 3 weeks to 12 weeks (21 to 84 days).² The time between being exposed and developing antibodies is called the "window period."

There are newer HIV tests available that can tell whether you are HIV-positive early after exposure to the virus. One of the newer tests looks for the virus itself, by testing for viral load (the amount of HIV in your blood) and a marker on the virus called p24 antigen. This test is much more sensitive. It can detect HIV within nine to 11 days after exposure. This type of test may be more expensive.

There are three types of tests available: nucleic acid tests (NAT), antigen/antibody tests, and antibody tests. HIV tests are typically performed on blood or oral fluid. They may also be performed on urine.

- A NAT looks for the actual virus in the blood. The test can give either a positive/negative result or an amount of virus present in the blood (known as an HIV viral load test). This test is very expensive and not routinely used for screening individuals unless they recently had a high-risk exposure, or a possible exposure and they have early symptoms of HIV infection.
- 2. An antigen/antibody test looks for both HIV antibodies and antigens. Antibodies are produced by your immune system when you're exposed to bacteria or viruses like HIV. Antigens are foreign substances that cause your immune system to activate. If you have HIV, an antigen called p24 is produced even before antibodies develop. Antigen/antibody tests are recommended for testing done in labs and are now common in the United

States. There is also a rapid antigen/antibody test available.

- 3. Most rapid tests and home tests are **antibody tests**. HIV antibody tests look for antibodies to HIV in your blood or oral fluid. In general, antibody tests that use blood from a vein can detect HIV sooner after infection than tests done with blood from a finger prick or with oral fluid.
 - a. While most laboratories are now using antigen/antibody tests, laboratory-based antibody screening tests are still available. These tests require blood to be drawn from your vein into a tube and then that blood is sent to a laboratory for testing. The results may take several days to be available
 - b. With a rapid antibody screening test, results are ready in 30 minutes or less. These tests are used in clinical and nonclinical settings, usually with blood from a finger prick or with oral fluid.
 - c. The **oral fluid antibody selftest** provides fast results. You have to swab your own mouth to collect an oral fluid sample and use a kit to test it. Results are available in 20 minutes. The manufacturer provides confidential counseling and referral to follow-up testing sites. These tests are available for purchase in stores and online. They may be used at home, or they may be used for testing in some community and clinic testing programs.

d. The **home collection kit** involves pricking your finger to collect a blood sample, sending the sample by mail to a licensed laboratory, and then calling in for results as early as the next business day. This antibody test is anonymous. The manufacturer provides confidential counseling and referral to treatment.

If you use any type of antibody test and have a positive result, you will need to take a follow-up test to confirm your results. If your first test is a rapid home test and it's positive, you will be sent to a health care provider to get follow-up testing. If your first test is done in a testing lab and it's positive, the lab will conduct the follow-up testing, usually on the same blood sample as the first test.

Places to Get Tested for HIV

You can ask your health care provider for an HIV test. Many medical clinics, substance abuse programs, community health centers, and hospitals offer them too. You can also find a testing site near you by

- calling I-800-CDC-INFO (232-4636),
- website: gettested.cdc.gov, or
- texting your ZIP code to KNOW IT (566948).

You can also buy a home testing kit at a pharmacy or online.

Who is at Risk for HIV?

HIV can affect anyone regardless of sexual orientation, race, ethnicity, gender or age. However, certain groups are at higher risk for HIV and merit special consideration because of particular risk factors.

Some groups of people in the United States are more likely to get HIV than others because of many factors, including the status of their sex partners, their risk behaviors, and where they live.

When you live in a community where many people have HIV infection, the chances of having sex or sharing needles or other injection equipment with someone who has HIV are higher.

You can use CDC's HIV, STD, hepatitis, and tuberculosis Atlas Plus to see the percentage of people with HIV ("prevalence") in different US communities. Within any community, the prevalence of HIV can vary among different populations.

Gay and bisexual men have the largest number of new diagnoses in the United States. Blacks/African Americans and Hispanics/Latinos are disproportionately affected by HIV compared to other racial and ethnic groups. Also, transgender women who have sex with men are among the groups at highest risk for HIV infection, and injection drug users remain at significant risk for getting HIV.

Risky behaviors, like having anal or vaginal sex without using a condom or taking medicines to prevent or treat HIV, and sharing needles or syringes play a big role in HIV transmission. Anal sex is the highest-risk sexual behavior.

Preventing HIV

It is very important to take steps to reduce the risks of acquiring HIV, associated with the most common ways HIV is transmitted. These steps include:

- Knowing your HIV status. Getting tested at least once, but if you are at increased risk for HIV, you should get tested more than once a year.
- Use Condoms. Male and female condoms help to prevent the spread of HIV infection.
- Be Monogamous. Having sex with just one partner, after getting tested for Sexually Transmitted Infections (STI's).
- Limit your number of sexual partners.
- Do not use drugs.
- Do not share needles and use only sterilized needles.
- Seek medical attention right away after possible exposure to HIV blood or body fluids.
- All blood spills including those that have already dried — should be cleaned and disinfected with a mixture of bleach and water (one-part household bleach to 10 parts water). Gloves should always be used when cleaning up any blood spills.

- The safest and most efficient way of preventing the spread of HIV disease is to use single-use items: Disposable razors and blades.
- Razor blades used for hair cutting should be changed after each client, and the blade should be disposed of into a sharp's container. The handle should be washed and dried after the blade has been removed; if contaminated, it also requires sterilization.

Treatment of HIV / AIDS

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 antiretroviral therapy (ART). Many ART 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. If left untreated, HIV attacks your immune system and can allow different types of life-threatening infections and cancers to develop.

U.S. Department of Health and Human Services recommend that a person living with HIV begin antiretroviral therapy (ART) as soon as possible after diagnosis. Starting ART slows the progression of HIV and can keep you healthy for many years. There currently is no cure for HIV / AIDS

FDA-Approved HIV Medicines

- Nucleoside Reverse Transcriptase Inhibitors (NRTIs)
- Non-Nucleoside Reverse Transcriptase Inhibitors (NNRTIs)
- Protease Inhibitors (PIs)
- Fusion Inhibitors
- CCR5 Antagonists
- Integrase Inhibitors
- Post-Attachment Inhibitors
- Pharmacokinetic Enhancers

Hepatitis

What is Hepatitis

Inflammation of the liver, usually from a viral infection. The most common hepatitis infections are hepatitis A, hepatitis B, and hepatitis C. Hepatitis may also be due to autoimmune disease, alcohol, medications, or toxic agents.

What is the difference between hepatitis A, hepatitis B, and hepatitis C?

Hepatitis A, Hepatitis B, and Hepatitis C are liver infections caused by three different viruses. Although each can cause similar symptoms, they are spread in different ways and can affect the liver differently. Hepatitis A is usually a shortterm infection and does not become a long-term infection. Spreads by ingesting the virus from objects, food, or drinks contaminated by small, undetected amounts of stool from an infected person. Hepatitis B and hepatitis C can also begin as short-term infections but in some people, the virus remains in the body, and causes chronic, or lifelong, infection. There are vaccines to prevent hepatitis A and hepatitis B; however, there is no vaccine for hepatitis C

Hepatitis B Hepatitis B is a liver infection caused by the hepatitis B virus. Hepatitis B can range from a mild illness lasting a few weeks to a serious, lifelong illness.

cirrhosis or liver cancer. The virus can survive outside the body for up to 7 days. During that time the virus is still capable of causing infection.

- Acute hepatitis B is a short-term illness that occurs within the first 6 months after someone is exposed to the hepatitis B virus. An acute infection can range in severity from a mild illness with few or no symptoms to a serious condition requiring hospitalization. Some people, especially adults, are able to clear the virus without treatment. People who clear the virus become immune and cannot get infected with the hepatitis B virus again. Acute infection can — but does not always — lead to chronic infection.
- Chronic hepatitis B is a lifelong infection with the hepatitis B virus. Over time, chronic hepatitis B can cause serious health problems, including liver damage, cirrhosis, liver cancer, and even death.

Hepatitis B Transmission / Exposure

The hepatitis B virus is spread when blood, semen, or other body fluid infected with the hepatitis B virus enters the body of a person who is not infected. People can become infected with the virus from:

- Birth (spread from an infected mother to her baby during birth)
- Sex with an infected partner
- Sharing needles, syringes, or drug preparation equipment
- Sharing items such as toothbrushes, razors or medical equipment such as a glucose monitor with an infected person
- Direct contact with the blood or open sores of an infected person
- Exposure to blood from needle sticks or other sharp instruments of an infected person
- Hepatitis B virus is not spread through food or water, sharing eating utensils, breastfeeding, hugging, kissing, hand holding, coughing, or sneezing.

Who Is at Risk for Hepatitis B?

Although anyone can get hepatitis B, some people are at greater risk:

• Infants born to infected mothers

- People who inject drugs or share needles, syringes, or other drug equipment
- Sex partners of people with hepatitis B
- Men who have sexual contact with men
- People who live with a person who has hepatitis B
- Health care and public safety workers exposed to blood on the job
- Hemodialysis patients

Symptoms of Hepatitis B

If symptoms occur, they begin an average of 90 days (or 3 months) after exposure, but they can appear any time between 8 weeks and 5 months after exposure.

Symptoms of acute hepatitis B, if they appear, can include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements

- Joint pain
- Jaundice (yellow color in the skin or the eyes)

Prevention / Vaccination

The best way to prevent hepatitis B is by getting vaccinated. The hepatitis B vaccine is safe and effective. Completing the series of shots is needed for full protection.

The hepatitis B vaccine stimulates your natural immune system to protect against the hepatitis B virus. After the vaccine is given, your body makes antibodies that protect you against the virus. An antibody is a substance found in the blood that is produced in response to a virus invading the body. These antibodies will fight off the infection if a person is exposed to the hepatitis B virus in the future.

Who should get vaccinated against hepatitis B?

Hepatitis B vaccination is recommended for:

- All infants
- All children and adolescents younger than 19 years of age who have not been vaccinated
- People at risk for infection by sexual exposure
- People whose sex partners have hepatitis B

- Sexually active people who are not in a long-term, mutually monogamous relationship (for example, people with more than one sex partner during the previous 6 months)
- People seeking evaluation or treatment for a sexually transmitted infection
- \circ Men who have sex with men
- People at risk for infection by exposure to blood
- People who share needles, syringes, or other drug preparation equipment
 - People who live with a person who has hepatitis B
 - Residents and staff of facilities for developmentally disabled people
 - Health care and public safety workers at risk for exposure to blood or blood-contaminated body fluids on the job
 - Hemodialysis patients and predialysis, peritoneal dialysis, and home dialysis patients
 - People with diabetes aged 19–59 years; People with diabetes aged 60 or older should ask their health care professional.
- International travelers to countries where hepatitis B is common
- People with hepatitis C virus infection
- People with chronic liver disease

- People with HIV infection
- People who are in jail or prison
- All other people seeking protection from hepatitis B virus infection

Hepatitis C

Hepatitis C is a liver infection caused by the hepatitis C virus. Hepatitis C can range from a mild illness lasting a few weeks to a serious, lifelong illness. Hepatitis C is often described as "acute," meaning a new infection or "chronic," meaning lifelong infection.

- Acute hepatitis C occurs within the first 6 months after someone is exposed to the hepatitis C virus. Hepatitis C can be a short-term illness, but for most people, acute infection leads to chronic infection.
- Chronic hepatitis C can be a lifelong infection with the hepatitis C virus if left untreated. Left untreated, chronic hepatitis C can cause serious health problems, including liver damage, cirrhosis (scarring of the liver), liver cancer, and even death.

Hepatitis C Transmission / Exposure

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 the hepatitis C virus by sharing needles or other equipment to prepare or inject drugs. Before 1992, hepatitis C was also commonly spread through blood transfusions and organ transplants. After that, widespread screening of the blood supply in the United States virtually eliminated this source of infection.

People can become infected with the hepatitis C virus during such activities as:

- Sharing needles, syringes, or other equipment to prepare or inject drugs
- Needle stick injuries in health care settings
- Being born to a mother who has hepatitis C

Less commonly, a person can also get hepatitis C virus through

- Sharing personal care items that may have come in contact with another person's blood, such as razors or toothbrushes
- Having sexual contact with a person infected with the hepatitis C virus
- Getting a tattoo or body piercing in an unregulated setting

Hepatitis C virus is not spread by sharing eating utensils, breastfeeding, hugging, kissing, holding hands, coughing, or sneezing. It is also not spread through food or water.

Symptoms of Hepatitis C

If symptoms occur, they begin an average 2 weeks to 12 weeks after exposure,

Symptoms of acute hepatitis C, if they appear, can include:

- Fever
- Fatigue
- Loss of appetite
- Nausea
- Vomiting
- Abdominal pain
- Dark urine
- Clay-colored bowel movements
- Joint pain
- Jaundice (yellow color in the skin or the eyes)

Treatment

- There is not a recommended treatment for acute hepatitis C.
 People with acute hepatitis C virus infection should be followed by a doctor and only considered for treatment if their infection remains and becomes a chronic infection.
- There are several medications available to treat chronic hepatitis C. Hepatitis C treatments have gotten much better in recent years. Current treatments usually involve just 8-12 weeks of oral therapy (pills) and cure over 90% of people with few side effects.

How should blood spills be cleaned from surfaces to make sure that hepatitis B and C virus is gone?

 All blood spills — including those that have already dried — should be cleaned and disinfected with a mixture of bleach and water (onepart household bleach to 10 parts water). Gloves should always be used when cleaning up any blood spills. Even dried blood can be infectious.

Attitudes Towards HIV and AIDS and Appropriate Behavior

Today, an estimated 1.1 million people in the United States are living with HIV and many of them don't know it. While great progress has been made in preventing and treating HIV, the Centers for Disease Control and Prevention (CDC) knows there is still more work to be done to address the HIV epidemic.

Since HIV and Hepatitis is spread mainly through unprotected sexual intercourse, needle use / sharing, and passed from mother to child during childbirth, being in a salon setting, there is minimal risk, if any risk at all, for contracting these diseases.

As educated individuals it is our responsibility to set an example and even

promote the education of HIV / Hepatitis disease. We should take an appropriate professional attitude when interacting with someone who has a communicable disease

Reference & Source Materials:

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and take the necessary precautions to safeguard ourselves and other people, without discrimination and fear, when in contact with blood or body fluids.

