2-Hour HIV/AIDS Course for Barbers
Course Introduction
Welcome to the 2-Hour HIV / AIDS Continuing Education Course for Barbers!

Throughout the next 2 hours, you will encounter various topics regarding HIV and AIDS as they relate to the practice of barbering. At the end of each of this course, you will be asked to take an exam covering the information that you have learned throughout the various sections. In order to pass this course, you must pass the exam with at least a 75% score.

So now, let’s begin our course with a discussion on HIV and AIDS as it pertains to barbers and their establishments.
HIV & AIDS

The objective for this section of the course is to instruct and inform barbers regarding the subject of HIV and AIDS, as well as any other communicable diseases that they may potentially encounter in their work environment. Throughout this lesson, we will cover:

• How to recognize the modes of transmission for HIV/AIDS and other communicable diseases
• How to understand infection control procedures, clinical management and prevention of HIV/AIDS and other communicable diseases
• Next steps to take for an HIV-positive individual
• Anti-HIV medications – what they are, how they function, and what a treatment regimen looks like
• Additional resources and materials available for the HIV-positive or AIDS patient
• How to develop an appropriate attitude when dealing with persons who may have HIV/AIDS or other communicable diseases
Brief Overview of HIV & AIDS

You are probably familiar with the terms HIV and AIDS. These pandemics have affected people throughout the entire world and have received substantial coverage by the media in the past, and continue to do so in the present.

In 2006, the Centers for Disease Control (or CDC) estimated that about 56,000 people in the United States had contracted HIV. Additionally, in 2007, 35,962 cases of AIDS were diagnosed and 14,110 deaths among those living with HIV were reported.

While research has uncovered a lot of information, many individuals may still have misconceptions about HIV and AIDS. The general population, barbers included, likely encounter people or will potentially encounter people in the future who have HIV or AIDS or will encounter such a person at some point. So, throughout these sections, we will seek to understand the truth about these diseases to better inform a barber in their working environment.
Basic Facts & General History

HIV stands for Human Immunodeficiency Virus. This is the virus that leads to AIDS. HIV damages a person’s body by destroying a type of blood cells called CD4+ T cells, which are necessary for the body to fight diseases.

AIDS stands for Acquired Immune Deficiency Syndrome. This is the last stage of HIV infection when a person’s immune system is damaged to the point where it cannot fight diseases and certain types of cancers.

At this time, there is no cure for HIV infection. However, people can live much longer with these diseases if they receive proper medication. It is important for barbers, as well as any other individual, to understand that every day contact with an HIV-infected person does not expose you to HIV. We will discuss later on in this section the methods by which HIV and AIDS are contracted.

On the job site, the possibility of infection is generally very low, especially if you follow universal precautions. We will detail these specific precautions later on in the course. For now, however, we will discuss the history of both HIV and AIDS.
According to the CDC, the earliest known case of infection with HIV in a human was collected from the blood sample of a man from Kinshasa, Democratic Republic of the Congo in 1959. While the source of his infection is still not known, in 1999 an international team of researchers determined that the source of the predominant strain of the HIV that he had was also found in a subspecies of chimpanzees that were native to west equatorial Africa. These researchers believed that this particular strain of HIV was introduced into the human population when hunters came into contact with and became exposed to the infected blood of the animal.

In the United States, the HIV virus has been affecting people since the 1970s. In 1979 doctors in New York and Los Angeles began reporting patients who had rare types of pneumonia, cancer and other illnesses. What was a common factor among these patients? A number of these patients were people who were sexually active.
Since we have discussed a bit of history regarding HIV, we will now discuss the history of AIDS. In 1982, the term AIDS was used in order to describe the occurrence of rare types of pneumonia, cancer and other illnesses occurring in people who had previously appeared normal and healthy. It was in this year that the formal tracking of the AIDS virus in the United States began.

In 1983, the virus that caused AIDS was discovered. At first, scientists called this virus HTLV-III/LAV. (This is short for human T-cell lymphotrophic virus-type III/lymphadenopathy-associated virus). Later, the name of the virus was changed to HIV, which, as you learned at the beginning of this section, is short for Human Immunodeficiency Virus.

At that point during the early 1980s, people who developed HIV could also develop AIDS very quickly. But by the 1990s, highly effective combinations of medication were introduced that allowed people to live much longer. Today, people who detect HIV early and receive proper treatment can live for decades before they develop AIDS. As was stated earlier, however, there is still sadly no permanent cure for this disease.
Transmission

Now that we have briefly covered the history of both HIV and AIDS, we will discuss how HIV is transmitted in humans. HIV is a disease that is transmitted through body fluids. The specific fluids that have been shown to contain dangerous concentrations of HIV are:

- Blood
- Semen
- Pre-seminal fluid
- Vaginal fluid
- Breast milk
Outside of the body, HIV does not survive well though. The CDC states that “no one has been identified as infected with HIV due to contact with an environmental surface.” So then how is the virus passed from one person to another? HIV is most commonly transmitted by:

• Unprotected sex  
  • Either partner in this case can be infected  
• Injecting drugs with contaminated needles  
  • This can occur by either coming into contact with contaminated blood or a contaminated needle, or both.  
• Mother to child  
  • A mother with HIV can transmit the virus to her baby during pregnancy, delivery or breastfeeding. This is called perinatal transmission.  
    • However, if the mother is tested and treated early enough, the possibility of the baby becoming infected decreases dramatically  
• According to the CDC, about 100-200 infants in the U.S. are infected with HIV annually. The majority of these infants became infected because their mothers were not tested early enough, and/or did not receive prevention treatments.  
• Early detection and prevention programs in the U.S. have become so successful that they are now being used in other countries as well.  
• According to the CDC, if a woman is tested early and antiretroviral therapy is administered to the mother during pregnancy, labor and delivery and then to the newborn (along with an elective cesarean section) this can potentially reduce the rate of perinatal HIV transmission to 2% or less.  
• If medication is started during labor and delivery, the rate of perinatal transmission can still be decreased to less than 10%.
Now that we have listed the most common methods of transmission, we will include some other less common methods in our discussion. Examples of more uncommon ways that a HIV may spread from person to person include:

• Blood transfusions
  • Before blood was screened for HIV, the spread of the virus through blood transfusions was possible.
    • Now, however, donated blood is screened for HIV and heat treated to destroy any possible traces of the virus
  • Presently, there is little risk of becoming infected with HIV via blood transfusion
  • Based on 2007-2008 data the CDC states that “the risk for acquiring HIV infection through blood transfusion today is estimated conservatively to be one in 1.5 million.”

• Kissing
  • Although scientists have detected HIV in the saliva of infected people, there is no evidence that the virus is spread by contact with saliva alone.
  • In fact, studies have shown that saliva has natural properties that can actually reduce the infective capabilities of HIV. Additionally, the concentration of HIV in saliva is relatively low
  • According to the CDC, the risk of getting HIV through kissing depends on the type of kiss:
    • Dry kissing and kissing on the cheek is considered safe
    • Open-mouth kissing is considered to be a very low risk activity
    • However, prolonged kissing that could damage the mouth or lips could allow HIV to pass from an infected person to their partner through cuts or sores
    • The CDC recommends against open-mouth kissing with an infected partner because of this risk.
Ways You Cannot Be Infected

Now that we have discussed the ways in which a person may be potentially infected by HIV, we will discuss how they cannot be infected. Remember that as we stated earlier in this lesson, outside of the body, HIV does not survive well. So this means that you **cannot** be infected by any of the following:

- Urine
- Feces
- Sweat
- Tears
- Mosquitoes or bedbugs
- Casual contact, including shared use of:
  - Swimming pools
  - Phones
  - Toilet seats
  - Bedding or towels
  - Food utensils
Symptoms of HIV

Before we go over the symptoms of HIV, it is important to understand that the only foolproof way to know if a person is infected is to be tested for the HIV infection. This is especially important because many people who are infected will not have any symptoms for 10 years or more.

According to the CDC, the following may be warning signs of advanced HIV infection:

- Rapid weight loss
- Dry cough
- Recurring fever or profuse night sweats
- Profound and unexplained fatigue
- Swollen lymph glands in the armpits, groin, or neck
- Diarrhea that lasts for more than a week
- White spots or unusual blemishes on the tongue, in the mouth, or in the throat
- Pneumonia
- Red, brown, pink, or purplish blotches on or under the skin, or inside the mouth, nose, or eyelids
- Memory loss, depression, and other neurological disorders

Remember: HIV in and of itself doesn’t kill anyone. The only thing that HIV can do is weaken the body’s ability to fight off other illnesses and diseases.
The Difference Between HIV and AIDS
Now that we have discussed the symptoms of HIV, we will discuss the differences between HIV and AIDS. First of all it is important to reiterate that HIV is the virus that causes the disease AIDS.

• HIV infects the CD4 cells or helper T cells that are an important part of the immune system.
• A person can be infected with HIV for several years before AIDS develops
• AIDS is diagnosed when a person’s cell count goes below 200. For a person who also has certain diseases, it can potentially be diagnosed when their cell count is higher than that.
• People go through various stages of HIV infection before they develop AIDS. In general, the stages of infection that a person may go through before the AIDS disease develops are:
  • Infection – In this stage, HIV infects cells and copies itself before the immune system can respond.
    • Flu-like symptoms may occur at this time.
  • Response – While during this stage a person may not feel any different, the body is actually trying to fight off the virus by producing antibodies. This is the stage in which a person will go from HIV negative to positive.
  • No symptoms – This particular stage, where a person displays no evident symptoms of HIV, is called asymptomatic infection. The infected person does still have HIV, but the infection is currently causing damage within their body that can’t be felt.
  • Symptoms – This particular stage is where symptoms such as certain infections like Pneumocystis carinii pneumonia (PCP) develop.
  • AIDS – This is the diagnosis of a person who exhibits a variety of symptoms, infections and specific test results.
One of the many dangers of AIDS is that people with this disease are constantly at risk of certain infections that would not typically harm a healthy person. This is because their immune system is weakened and damaged by the disease and therefore cannot fight infections off like a health person can. There is a specific name for these infections – opportunistic infections. They are called this because they are infections that provide diseases with the opportunity to develop within a person's body. This is a reason why it is important for those who may have HIV or AIDS to be tested early enough – with the right medication, they will be able to combat these diseases better. Most of these infections develop within an HIV or AIDS patient without them even knowing, because these individuals are unwittingly exposed to germs on a daily basis. A variety of infections actually have the potential to be harmful to AIDS patients, and these include – but are not limited to – such infections as:

- PCP – Pneumocystis carinii pneumonia
- MAC – Mycobacterium avium complex
- CMV – Cytomegalovirus
- TB – Tuberculosis
- Toxo – Toxoplasmosis
- Crypto – Cryptosporidiosis
- Hep C – Hepatitis C
- HPV – Human papilloma virus
There are a variety of symptoms that may present themselves in the infections that we listed above. Some of these prominent symptoms may include things like:

- Breathing problems
- Mouth problems
  - i.e. thrush (white spots), sores, taste changes, dryness, trouble swallowing, loose teeth
- Fever that lasts more than two days
- Weight loss
- Changes in vision or “floaters” (meaning that there are moving lines or spots in your vision)
- Diarrhea
- Skin rashes or itching

Individuals should consult their doctors immediately if they encounter the symptoms listed above. And, because of their lowered immune system and inability for the body to ward off infections, AIDS patients also sadly have the potential to run a higher risk of developing cancers. People with AIDS may be at more risk to certain types of cancer, especially ones that are the direct result of viruses. These types of cancers include:

- Kaposi’s sarcoma
- Cervical cancer
- Lymphomas
So how are patients with AIDS treated for their cancer symptoms? Well, while doctors can use radiation, chemotherapy or medical injections to help patients who suffer from both AIDS and cancer simultaneously, the cancer in their bodies is unfortunately usually aggressive and therefore is difficult to treat.

As we have discussed earlier, there is currently no cure for HIV or AIDS. However, if a person is tested early enough, the disease can be treated and the individual may be able to live much longer than they would have if they had not been tested and treated.

Here are some specific methods listed by the CDC that may contribute to the amount of time that an individual goes from an HIV infection to AIDS disease:

**Individuals may have a shorter time period between acquiring HIV and developing AIDS if:**
- They are older in age
- The infection has more than one type of HIV
- They do not practice good nutrition
- They are under severe stress

**On the other hand, patients with HIV may find that their infection does not develop into AIDS disease as quickly if:**
- They closely follow the orders of their doctor or health care provider
- They eat healthy foods
- They take care of themselves
HIV Testing

Now that we have covered the modes of transmission and symptoms of HIV and AIDS, we will continue our discussion about them by discussing testing. What should you do if you think that you may have HIV? Remember that the **only** way for a person to know for certain if they have HIV is to be tested. There are many places that a person can go to in order to be tested. These places include: the local health department, a private doctor’s office or hospital, or a site that performs anonymous testing.

So what do HIV tests really do? HIV tests actually detect the antibodies produced by the body that are used to fight off infections. As a consequence of this, there may be a period of a few weeks to a few months right after a person is infected where there are not enough antibodies to be detected. The average period that it takes for there to be a detectable infection is 25 days. Most people, though, will develop the antibodies in 2-8 weeks. In rare cases, this can actually take up to 6 months. So for this reason, the CDC recommends that a person, who has an HIV test result that is negative within 3 months of the possible exposure, takes another test when more than 3 months have passed. All positive test results must be followed up by another test to confirm the positive result.
HIV Testing
Now we will discuss the various methods by which a person can be tested for HIV. The major types of tests that are performed are as follows:

Blood test
- The enzyme immunoassay (EIA) blood test is the most commonly used test for detecting the presence of HIV antibodies
- For this test, blood is drawn from a vein or finger stick
- A positive EIA must be used in conjunction with a follow-up blood test such as the Western blot to confirm diagnosis
- This test typically takes a few days for results

Urine test
- A urine test may be sought by a person who is not comfortable with having blood drawn
- Urine testing is not as sensitive or precise as blood testing
- A follow-up confirmatory Western blot test is required using the same urine sample
- This type of test typically takes a few days in order to gather results

Oral-fluid test
- An oral test may be sought by a person who is not comfortable with having blood drawn
- The oral test is performed by collecting oral fluid (not saliva) from the mouth using a special device
- A follow-up confirmatory Western blot test is required using the same oral fluid sample
- As with the tests mentioned above, this test also typically takes a few days for results
Rapid HIV test

- A rapid test can provide results in approximately 20 minutes
- This test uses blood from a vein or finger stick, or oral fluid to detect HIV antibodies
- A positive test must be followed-up by a confirmatory test before diagnosis is made

Home test kits

- While many home tests for HIV are advertised on the Internet, the only home test kit that is approved by the FDA is the Home Access HIV-1 Test System
- This particular test can be found at most drug stores
- People should not be fooled by the name “home test kit,” however. This test kit is not truly a home test in the same way that the other previous tests were. Rather, this is a home collection kit which requires the user to:
  - Prick their finger with a special device
  - Place drops of blood on a specially treated card
  - Mail the card in to be tested at a licensed laboratory
- Once the user completes the above steps, he or she is given an identification number that they will use when calling in for results
- Users may also have the option to speak to a counselor: before taking the test, while waiting for results or when the results are given
- If the user receives a positive result, a referral for a follow-up confirmatory test is provided, along with information about support services for those with HIV.

RNA Test

- RNA tests are utilized in order to search for genetic material of the virus
- These types of tests are used in order to screen the blood supply and to detect very early infection cases where other tests are unable to detect antibodies to HIV

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Negative Test Results

Now that we have discussed the methods that a person may use to test themselves, we’ll discuss the two different results that a person may have to the HIV test, beginning with negative test results. As stated earlier, a person who has an HIV test result of negative within 3 months of the possible exposure should take another test when more than 3 months have passed.

If a person tests negative, it is important to remember that this does not indicate the HIV status of a sexual partner. For this reason, a person should ask their sexual partner if he or she has been tested for HIV and if they presently or have ever engaged in risky behaviors.
Positive Test Results

On the other hand, if a person tests positive for HIV, early medical treatment and practice of a healthy lifestyle will optimize their life quality significantly. Early care of HIV can delay the onset of AIDS, as well. There are certain measures that a person who is HIV-positive should take. Steps that an HIV-positive person should take immediately include:

• Seeing a licensed health care provider, even if they do not feel sick.
  • This provider should have experience in treating HIV and be aware of the variety of medications used to manage the illness.
• Getting a tuberculosis (TB) test.
  • TB can be treated if caught early, but can cause serious illness if not addressed.
• Avoiding, or seeking a program to help quit the use of cigarettes, excessive alcohol or illegal drugs because these behaviors and habits can weaken a person's immune system further.
• Getting screened for other sexually transmitted diseases and practice safe sex to avoid getting an STD. STDs can cause serious illness if not addressed.

Again, not having sex is one of the most effective ways to prevent the spread of HIV between individuals. If a person chooses to be sexually active, they should use a latex condom to protect against HIV and other sexually transmitted diseases.
Treatment for HIV
So now that we have discussed what a person should do if they test positive for HIV, we will briefly cover the treatment outlined by the CDC for those who have tested HIV-positive. The recommended treatment for HIV is called antiretroviral therapy (or ART). What exactly does this therapy entail? ART involves taking a regimen of at least three anti-HIV medications on a daily basis. This combination therapy actually inhibits the HIV virus from multiplying within the body and destroying CD4 cells, which are the cells that help to ward off infections in the body. Taking this regimen of medications will actually help support those cells, whose primary purpose is to protect the rest of the body. As noted in our previous sections, HIV and AIDS patients are susceptible to infections and to certain forms of cancer if they do not have these CD4 cells functioning properly.
Obviously, before beginning any regimen of medicine, you will need to consult your health care provider in order to obtain these medications. What should you look for in a health care provider? First, you will need to find someone who has significant experience dealing with and treating HIV and AIDS. You should always ensure that you feel comfortable with your health care provider since the two of you will be working together. It is also important that you ask your healthcare provider any questions that you may have regarding treatment. Possible topics that you may want to discuss, according to the CDC, include:

- The benefits and risks of HIV treatment
- How HIV treatment may affect your lifestyle
- Lab tests that are used in order to monitor HIV
- What to do in order to avoid getting other infections
- How to avoid transmitting the disease to others
At your appointment with your healthcare provider, you will receive three tests:

**CD4 Count**
- This measures the CD4 cells (the good, disease-combating cells in your body)
- This is key in order to determine how many cells have been destroyed by HIV and helps health care professionals know what medicine to administer

**Viral load test**
- This test measures the amount of HIV that is present in a sample of blood
- The ultimate goal of HIV treatment is that a person’s viral load is kept so low that the virus itself cannot be detected by this test

**Drug-resistance testing**
- This form of testing helps to identify which anti-HIV medications will be the most useful in treating a particular strain of HIV
- Not every HIV-positive individual will require the exact same medication
Note that even though an individual may have been diagnosed as HIV-positive, this does not necessarily mean that they will need to start treatments for the infection immediately. That is why it is of significant importance that a person follows the directions of their health care provider and works closely with them during all stages of this infection. The point in time in which an individual begins their regimen may further depend on such things as:

- Overall health of the person
- CD4 count
- Viral load
- Whether or not you are pregnant
- Ability to commit to life-long treatment

If you or someone you know currently has HIV or AIDS, and you would like more information regarding the treatment of this pandemic, including – but not limited to – FDA-approved drugs, regimens, etc. you may find a PDF that the National Institutes of Health compiled that includes various fact sheets. A majority of the information we have already covered throughout this lesson, but it is a good idea for barbers and other individuals to stay educated about this pandemic.
Recommended HIV Treatment Regimens

As we discussed previously, antiretroviral therapy (ART) is the recommended method used to treat HIV. Anti-HIV medications can actually be classified into six different drug classes. The drugs in these particular classes are organized by how they fight HIV. Listed below are the six different classes that drugs will fall into:

- Non-nucleoside reverse transcriptase inhibitors (NNRTIs)
- Nucleoside reverse transcriptase inhibitors (NRTIs)
- Protease inhibitors (PIs)
- Fusion inhibitors
- CCR5 antagonists
- Integrase inhibitors

Recommended regimens to treat HIV include at least three, if not more, of drugs from at least two different drug categories listed above. This is actually the most effective way to combat HIV – by taking drugs from different classes. Some medications are even available in combinations. This means that two or more medications will be in one pill. There is actually a name for this type of recommendation – HAART, which stands for highly active antiretroviral therapy. As we discussed before, it is recommended that HIV be treated through a combination of medicines. HAART is the specific name for the combination of three or more medicines in a treatment.
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- Any other diseases or conditions in addition to HIV that you have
- Your allergic reactions to the ingredients in potential anti-HIV medications
- Potential drug-to-drug interactions (between any medications that you may be currently taking and the anti-HIV medication)
- Your personal drug-resistance test results
- The complexity of the regimen itself
  - Will it be difficult for an individual to remember to take the necessary pills?
  - How many pills will need to be taken every day? How often?
  - Will these pills need to be taken with or without food?
- Any other personal issues
  - Depression
  - Substance abuse
  - Emotional issues
After you have expressed concerns and discussed them with your healthcare provider, he or she may provide you with one of the three following regimens:

**Atripla**
- This regimen is combination of three different anti-HIV medications, conveniently in only one pill

**Reyataz + Norvir + Truvada**
- Truvada is actually a combination of two different anti-HIV medications, conveniently in one pill

**Prezista + Norvir + Truvada**

**Isentress + Truvada**

It is important to note that HIV-positive women who are in their first trimester of pregnancy – or any woman who is planning on becoming pregnant – should not use the medications Atripla or Sustiva. These medications can actually harm the child. As always, it is important for any HIV-positive patient to discuss their options with their healthcare provider before beginning a medicine regimen.
It is also important to note that – as with any medication – anti-HIV medications will produce side effects within an individual. Like we stated earlier though, since each patient will have a regimen specifically based on their needs, people who are taking the same medication may not always have the same side effects. That is why it is important to discuss any potential side effects of the medications you will be taking with your pharmacist or healthcare provider. Most of these side effects will be minor, but it is still important to report any side effect or anything that makes you feel unusual or uncomfortable with your healthcare provider. The side effect may seem minor, but may actually indicate more serious problems. Side effects such as the ones listed below, fall into this category and seem essentially harmless but may actually indicate more serious problems:

- Fever
- Nausea
- Fatigue
- Rash
- Etc.

As always, talk to your healthcare provider should you develop any harmful side effect. This is the most important tool in ensuring your health and progression as you deal with HIV. Remember again that side effects will not be the same between all HIV patients, even those who are prescribed the same medication. Because of this, your healthcare provider will design a regimen that is specifically designed to fit your needs, symptoms, and to successfully combat the HIV within your body.
Treatment Adherence

Now that we have talked about a variety of medications that individuals may encounter if they are HIV-positive, we will focus on the treatment itself. What exactly is treatment adherence? Quite simply, this means that an individual adheres to, or follows, their regimen. This includes taking the correct medication at the correct time in the correct dosage prescribed. Adherence to medication is a key element in treating HIV fully.

Why exactly is treatment adherence important to the HIV-positive individual though? The National Institutes of Health details two specific reasons for this:

• Properly adhering to an HIV treatment regimen will help the anti-HIV medications work effectively in order to reduce the amount of HIV within the body.
  • This means that if you skip medications – even just on occasion – you give the HIV virus the opportunity to multiply within your body quite quickly.
  • The simple and best way to prevent the virus from multiplying, then, is to take medications as instructed.
• Not only does good adherence to your regimen prevent the HIV virus from multiplying within the body, but it also assists in preventing drug-resistance.
  • Drug resistance occurs when the HIV virus mutates within your body. It soon actually can become resistant to certain medications that you may be taking. As a result, the anti-HIV medications that you are taking can become ineffective.
  • Skipping medications makes drug-resistance possible in the body. Also, drug-resistant strains of HIV can then be transmitted to others. So it is integral for this reason that patients always adhere to their regimen.
Now that we have covered the importance of adhering to a treatment regimen, we will discuss some difficulties that a patient may have in keeping with their current regimen. There can be many reasons as to why adhering with this may be difficult because most of your regimens – as we discussed earlier – require a patient to take multiple pills per day. Other reasons that a person may find it difficult to adhere to this are:

- Difficulty in taking medications
  - Swallowing pills, etc.
- Side effects from medications
  - Fatigue, diarrhea, etc.
- Issues with scheduling medication daily
  - Traveling away from home, unstable work schedules, etc.
- Emotional or physical illness
  - Depression, colds, flus, etc.
- Substance abuse
  - Alcohol or drugs
We’ve already discussed why it is of integral importance for an individual to adhere to their medication regimen if they are HIV-positive. But how can someone practically ensure that they adhere to that regimen? Before a patient starts taking their medication, they must be certain that they are able to follow it. Anti-HIV medication regimens are a lifetime commitment, and patients must make sure that they are willing and able to continue with the medication for the long haul. Discussions with a healthcare provider should cover these issues, in regards to treatment adherence:

- Any possible side effect from the anti-HIV medications
- How anti-HIV medications have the potential to interact with any other drugs in an individual’s system
- Work and home schedules
- Personal issues, such as substance abuse or depression
- Medical insurance coverage

In discussing these issues with a healthcare provider, a patient will be able to ensure that they correctly follow their prescribed regimen in the present, and will be able to continue to do so in the future.
Following Treatment Regimens

We have already discussed what treatment regimens are and why it is necessary for an HIV-positive individual to adhere to their particular regimen in order to prevent relapses or spreading the infection to others. Now we will discuss some practical ways in which a person may follow their HIV treatment regimen.

Before you begin your regimen, you should keep an open line of communication with your healthcare provider. The following topics should be discussed between you and your healthcare provider before you begin your treatment regimen:

• Identify each of the individual anti-HIV medications that are in your regimen
• Identify the dose of the medication
• How many pills are in the dose?
• When must the patient take the medication?
  • Is there a particular time of the day in which they need to take it?
• How must they take the medication?
  • With food, without food, etc.
• Identify any potential side effects that may occur with the regimen
• Identify any possible drug-to-drug interactions between anti-HIV medication and any other medications that they are currently taking
• How must medications be stored?
Now that we have identified the common questions that should be addressed to a healthcare provider, we will discuss some practical ways in which an individual may choose to manage their regimen. Remember: proper adherence to a regimen of anti-HIV medication is a key in maintaining health, so it is important that a patient do whatever is necessary in order to make that possible. The following are some suggestions in order to make this possible:

• Use a 7-day pill box
  • Once a week, fill this box with all the necessary medications that you will need throughout the week
• Take the medication at the same time every day
  • This will help to establish a routine for your regimen that will be easier to follow
• Use a timer, alarm clock, or cell phone to remind you to take the medication
  • Again: scheduling your medication into your daily routine will help establish consistency and will make it less likely to forget medications
• Ask family, friends, or co-workers to remind you
  • It is always a good idea to have extra accountability for your medication regimen
• Keep medications close to you. This will help aid you in remembering to take them.
  • Keep a back-up supply of medication somewhere close to you as well, such as in a briefcase, purse, etc.
• Always be sure to plan ahead if you know that your regimen will be altered
  • Make sure that if you are going out of town on vacation, or a business trip, or even for a weekend that you pack enough medication with you in order to last the entire duration of the trip.
• It may also be a good idea to begin a medicine diary
  • Keep a log of the medication that you take – write down its name, dosage, when you take the pills, etc.
  • Check off the medications as you take them, and review your diary in order to help keep yourself on track.
• Do not skip medical appointments
  • This is of significant importance because you always want to ensure that communication between you and your healthcare provider is open.
  • If you should happen to run low or completely out of your medications before you are able to meet with a healthcare provider, ask them to renew the prescriptions for you.
• Join a support group
  • Joining a support group for people who are living with HIV is a good way to form community and also accountability

So what happens if you should forget to take your medication? If this happens, you should take the medication as soon as you remember that you have missed it. However, if it is almost time for you to take the next dose of medicine, do not take the skipped dose. You should never take a double dose of medication in order to “make up” for missed ones. Just continue to follow your scheduled regimen as you usually would. If for some reason you are having difficulty keeping on track with your scheduled regimen, you should contact your healthcare provider. This will aid you in discovering why you may be having difficulty and also providing a workable solution to fit your needs.
One of the most important questions that an individual who is on anti-HIV medication may ask themselves is this: is the regimen actually working? In order to decipher whether or not your particular medication regimen is effective, your healthcare provider will perform two important tests that we covered briefly earlier in this lesson: a CD4 count and a viral load test.

As previously discussed, a CD4 count is used in order to measure the infection-fighting CD4 cells within your body. Since HIV destroys these particular cells, it is important that HIV-positive individuals be tested for these cells. A healthy individual will have a CD4 count of anywhere between 500 and 1,200 cells per millimeters cubed (mm$^3$). An HIV-positive individual who has a CD4 count of less than 500 cells/mm$^3$ will need to begin anti-HIV medications. Any CD4 count that is less than 200 cells/mm$^3$ is diagnosed with AIDS.

Once an individual begins an anti-HIV treatment regimen, they will have a CD4 count once every 3 to 4 months. It is always a good sign if an individual’s CD4 count increases. If treatment is working, a person should only need to have a CD4 count once every 6 to 12 months.
We discussed earlier what a viral load test is, as well. This is the best test to determine whether or not a treatment is actually working in an individual. This particular test actively measures the amount of HIV within a person’s blood. It is important to note, however, that an undetectable viral load does not mean that an individual has actually been cured of HIV. It simply means that their viral load count is so low that it cannot be detected by the test itself. So, once a patient begins their treatment regimen, they will have a viral load test within 2 to 8 weeks after that date. They will continue to need to have viral load tests done every 4 to 8 weeks after that, or until the viral load cannot be detected anymore. After the viral load is undetectable, a person will only need to have their viral load tested every 3 or 4 months. Should an individual have an undetectable viral load for at least 2 or 3 years, their healthcare provider may recommend that the individual be tested once every 6 months instead.

Now that we have covered what successful testing looks like, we will discuss why particular regimens may actually fail. The major reason that this may occur is if the anti-HIV medications cannot properly control the virus, or protect the immune system from failing. A lot of times, the reason that medications may fail is due to uncontrollable circumstances, such as side effects and drug interactions. If this occurs, a healthcare provider may switch an individual’s medication in order to properly deal with these issues. A healthcare provider will most likely consider the following factors, though, before they decide to switch an individual’s regimen:

• How closely the regimen was adhered to
• Side effects that were experienced on that particular regimen
• How well the body absorbed medications in the regimen
• Drug-resistance test results
If a healthcare provider does decide to switch an individual’s medication regimen, they will first review a variety of factors before prescribing a new medication that also include:

- The patient’s medical history
- Any past side effects from the medications
- Results of the drug-resistance tests

As we mentioned earlier in the section regarding anti-HIV medication, all medication available is approved by the FDA before use. However, a healthcare provider may actually recommend a new medication that is currently being studied if an individual has already taken many of the FDA-approved medicines. Patients may also have the potential to be eligible for a clinical trial – a type of research study that tests how well medical treatments work – using this new medication.

Again, as mentioned earlier, it is always a patient’s responsibility to properly adhere to their treatment regimen. If they do not do so, they run the risk of allowing themselves to relapse.

For a downloadable copy of the information that has been provided throughout this section, the National Institutes of Health has constructed downloadable fact sheets regarding HIV and its treatment. The fact sheets titled “HIV and Its Treatments” can be located at: http://aidsinfo.nih.gov/contentfiles/HIVandItsTreatment_cbrochure_en.pdf
Before we continue our discussion shortly by covering how other individuals should and should not act if they encounter HIV-positive people in their workplace or daily life, we will first discuss the life of the HIV-positive individual. For those who are living with HIV or AIDS, daily life may be a struggle. People may feel as if there is nowhere they can turn for support, but that is simply not true. If a person is living with HIV or AIDS, they may require certain support (emotional, physical, financial, and medical) in order to make it through from day to day. For those who are struggling, there are plenty of places that they may find solace and information, including: a healthcare provider, a local health or social services department, a local AIDS service organization, or a library. According to the CDC, an individual living with HIV or AIDS may find the help that they need in these places, including things like:

• Answers to questions regarding HIV and AIDS
• Names of doctors, insurance companies, and general help in making medical decisions
• Food, housing, or transportation
• Help in managing financial and daily needs
• Support groups for the individual as well as their families and loved ones
• Help in regards to legal matters, such as claims for the Americans With Disabilities Act (ADA), which we will cover momentarily
• Confidential help in the application for Social Security disability benefits
It is usually always better for individuals who are struggling with any kind of disease to be around those who understand their circumstances, and HIV and AIDS are no exceptions. There are plenty of ways for an HIV-positive or person with AIDS to find support within the community. The CDC lists some of these in their brochure: “Living with HIV/AIDS” and this includes:

• Contacting a local AIDS service organization.
  • The best way to do this may be to look under “AIDS” or “Social Service Organizations” in the yellow pages of a phone book.
• Contacting a local hospital, church, or chapter of the American Red Cross for any referrals.
• Read HIV newsletters or magazines for information
• Join support groups
  • In this day and age, it may also be a good idea to join Internet forums dedicated for those who are struggling with HIV and AIDS.
• Become an HIV educator
  • A great way to practice this is to: speak at events, hold informational gatherings, work on newsletters, organize benefits, etc.
• Attend social events designed to meet and socialize with others who have HIV or AIDS

The truth of the matter is that many people throughout the world are struggling with either HIV or AIDS, and most of them have the ability to lead normal, productive lives in society. If an individual follows the regimens that their healthcare provider prescribes, they will have a better quality of life.

Additionally, a person may contact the CDC at 1-800-232-4636 for more information if they are struggling with this pandemic and do not know what to do.
Behavior Around Those With HIV & AIDS

Now that we have discussed various aspects regarding HIV and AIDS, we will take the time to discuss the behavior of individuals among those who have this pandemic, including some negative stigmas and possible attitudes that one may have. Thanks to medical research and HIV/AIDS-awareness movements, more people are getting tested, treated and living longer despite their HIV-positive status. As a result, more people who are infected are returning to the workforce. Unfortunately, there is still a negative stigma felt by many people living with HIV.

It is a natural human response to feel anxious about others who might have a communicable disease, such as HIV. However, being educated about HIV/AIDS, understanding what it is, how it is spread, how it is not spread and how it affects an individual who is infected should help put your mind at ease.

Sadly, not everyone is educated about HIV. Since the illness first gained national attention, many employers and service providers have discriminated against people with HIV/AIDS. In response, the U.S. has passed laws that protect the rights of people with HIV/AIDS.

Throughout the next few sections, we will discuss various acts and laws that protect those living with HIV and AIDS.
Americans With Disabilities Act (ADA)

On September 16, 1994, Sidney Abbot went to her dental appointment. When she arrived, she disclosed that she was HIV-positive, but asymptomatic – meaning that she was infected but experienced no symptoms. The dentist examined Abbot; but when he found a cavity, he refused to treat her because of her HIV status.

Abbot filed a lawsuit in federal court arguing that she had been discriminated against, which is a violation of the Americans with Disabilities Act (ADA). The ADA defines a disability as “a physical or mental impairment that substantially limits a major life activity.” The case, Bragdon v. Abbot, went all the way to the Supreme Court. On June 25, 1998, the Court ruled that an individual who is HIV positive but asymptomatic, has a disability within the meaning of the ADA and should be protected under this law.

In 2008, Congress amended the ADA to make it easier for people with HIV/AIDS to demonstrate their eligibility for disability status. They’re reasoning was that people with HIV/AIDS can be classified as disabled because their immune systems would be substantially limited if they were to stop taking medication.
Americans With Disabilities Act (ADA)

So what exactly does the ADA do for those living with HIV and AIDS? The ADA:

- Protects the equal opportunity to work for people with HIV/AIDS who want to work and are qualified to work
- Prohibits employers from discriminating against people with HIV/AIDS when:
  - Hiring
  - Firing
  - Training
- Determining pay, promotions, benefits and leave
- Prohibits an employee from being harassed because of their HIV/AIDS status
- Protects the right of a person with HIV/AIDS to request a reasonable work accommodation to address their HIV/AIDS – such as requesting time off for treatment
- Prohibits an employer from firing or disciplining an employee with HIV/AIDS who asserts their rights under the ADA
- Prohibits businesses and non-profit service providers that serve the public from excluding, segregating or treating people with HIV/AIDS unequally
- Prohibits the denial of an occupational license or admission to school on the basis of a rumor or assumption that a person has HIV/AIDS
Family Medical Leave Act (FMLA)

Now that we have discussed the American with Disabilities Act (ADA), we will discuss another act: the Family Medical Leave act of 1993. The Family Medical Leave Act of 1993 protects employees in the private sector who work for an organization with 50 or more employees within 75 miles of the work site. Eligible employees are entitled to:

- Take leave for a serious medical condition
- Take leave to care for an immediate family member with a serious medical condition
- Use up to 12 weeks (in a 12 month period) of unpaid medical leave without fear of losing their job
Affordable Care Act of 2010

In the past, people living with HIV/AIDS have had a hard time getting private health insurance and have been subject to insurance industry abuse. People with HIV/AIDS also had trouble getting quality care from qualified providers. In 2010 the Affordable Care Act was signed. Currently, this Act:

• Prohibits insurers from denying coverage to children living with HIV/AIDS
• Prohibits insurers from cancelling coverage to adults or children unless they can show evidence of fraud in an application
• Prevents insurers from imposing a lifetime limit on insurance benefits

By 2014, this Act will:

• Prohibit insurers from denying coverage to anyone or impose annual limits on coverage
• Entitle people with low and middle incomes to be eligible for tax subsidies that will help them buy insurance
• Broaden Medicaid eligibility to classify more individuals as low-income individuals so that a person living with HIV who meets requirements will no longer have to wait for an AIDS diagnosis to become eligible for Medicaid
Health Insurance Portability and Accountability Act (HIPPA)

The Health Insurance Portability and Accountability Act of 1996 protects the privacy of people with HIV/AIDS by:

• Requiring the information doctors, nurses and other health care providers put in medical records to be private
• Requiring conversations with health care providers about care and treatment to be private
• Requiring any billing information stored at a health clinic to be private
• Requiring insurers to keep any health-related information about their customers private
• Giving people the right to review and make corrections to their medical records
Conclusion of Laws and Acts

While the laws we just went over cover people nation-wide, many states have set their own rules regarding HIV/AIDS. In Florida, the Omnibus AIDS Act requires the following:

• HIV tests can only be performed on a person if they have given documented and informed consent
• If an initial test result is positive, additional testing must be performed to confirm results before they are released
• Test results must be kept confidential
• Patients must be informed of their test results
• Healthcare providers must notify the county health department of positive test results

Remember, other states may have different regulations. The best way to become informed about state-specific laws regarding HIV/AIDS is to visit a state’s department of health Web site.
Anxieties About HIV/AIDS

As we learned at the beginning of this module, it is a natural human response to feel anxious about others who might have a communicable disease, such as HIV. Unfortunately, for many there is still a stigma attached to having a communicable disease such as HIV/AIDS.

However, as educated individuals, it is our responsibility to set an example for others by demonstrating appropriate attitude when interacting with someone with HIV in the workplace.

Let’s start by identifying some of the anxieties people might feel about others with HIV/AIDS in the workplace:

Anxiety #1: Worrying about coming in contact with certain body fluids

Remember:

- HIV is spread through unprotected sexual intercourse, sharing needles or from infant to mother
- Casual, everyday contact with an HIV-infected person does not expose workers to HIV
- According to the CDC, scientists estimate that the risk of infection from a needle-stick is less than 1%, a figure based on the findings of several studies of health care workers who received punctures from HIV-contaminated needles or were otherwise exposed to HIV-contaminated blood
Anxiety #2: Wondering how to protect themselves without offending others
Remember:
• Every workplace where there is risk of contamination should have a standard precautions policy which include the procedures for sterilization of equipment to prevent contact with blood or other potentially infectious materials

Anxiety #3: Wondering if you should tell your supervisor after discovering or suspecting someone in the workplace is HIV positive
Remember:
• Keep in mind that it takes courage for a person living with HIV to tell a co-worker or workplace friend that he or she has HIV
• It is not your responsibility to disclose this information to anyone
• Disclosure/protection of health status to employers is determined on a state-by-state level
The following are some guidelines that you may follow in order to develop a proper attitude when encountering those who have HIV or AIDS:

• If you discover someone has HIV/AIDS be supportive, but allow the person to function normally without being singled out
• Include the person in the same work and social activities as always, whenever possible
• Let the person decide whom to tell about their HIV/AIDS
• Do not spread rumors or gossip about someone with HIV/AIDS
• If a coworker is absent from work due to treatment, encourage others to plan and restructure work flows until he/she returns to work
• A coworker may have a family member or life partner with HIV/AIDS. Be supportive.
• Respect the person’s privacy. Their medical information is confidential, as is yours.

As an educated individual, you can help others by doing the following:

• Encourage your family and friends to learn about HIV prevention
• Promote HIV/AIDS education
• Demonstrate consideration and compassion for people affected by HIV
• Continue to treat coworkers and friends affected by HIV just as you always have
• Get involved by starting or volunteering with an organization whose focus is HIV/AIDS
• Know your HIV status. Remember, early intervention reduces risk of transmission to others and increases the length and quality of life for someone with HIV.
Conclusion of HIV & AIDS

By now, we have now discussed quite a bit of information regarding HIV and AIDS within this section of our lesson. At this point, you should:

• Be able to explain the history of both HIV and AIDS
• Be able to understand how HIV is and isn’t transmitted
• Know the differences between HIV and AIDS, and how HIV develops into AIDS
• Recognize the importance of early intervention for HIV-positive persons
• Know proper guidelines for preventing the spread of HIV and AIDS between individuals
• Acknowledge the various methods for testing this pandemic
• Recognize methods for treating HIV and AIDS

HIV and AIDS are not the only infections and diseases that a barber has the potential to encounter within their workplace, however.
Communicable Diseases

So, now that we have spent a significant amount of time in our discussion on HIV and AIDS, we will also spend some time covering other possible communicable diseases. First, we will define what a communicable disease actually is.

A communicable disease is a contagious illness that is a result of: the infection of a virus, bacteria, fungi, protozoa or parasites. There are several kinds of infectious diseases that affect people across the world. In addition to HIV, there are some communicable diseases that you, as a barber, may encounter both in and outside of the workplace. In this section of our discussion, we will cover the following communicable illnesses that are relevant to the field of barbering:

- Ringworm
- Head Lice
- Tuberculosis
- Viral Hepatitis
Ringworm

The first communicable disease that we will cover is ringworm. Ringworm is a disease that is caused by the tinea fungus (and not an actual worm as the name might suggest). This disease is one that affects the scalp and other parts of the skin. On the scalp, ringworm may appear as bald patch of scaly skin. On other parts of the skin, it can appear as a ring-shaped rash. This rash is often red and may possibly be itchy. Ringworm is spread through direct contact with an infected person or an infected person’s personal items. While ringworm is common and can affect anyone, it occurs mostly in children.

Ringworm thrives in warm, moist areas. It is more likely to occur when you are wet from sweating or when you have a minor injury on your scalp, skin or nails.

So now that we have briefly discussed what ringworm is and who it primarily affects, we will discuss the means by which this disease is typically transmitted. Ringworm can be transmitted from one person to another by:

• Touching someone who has the infection
• Contact with items contaminated by the fungus including grooming tools, unwashed clothing and shower or pool surfaces
Symptoms of this disease include:

- Itchy, raised, red and scaly patches that may blister and ooze
- Patches appear in the shape of a ring with sharply-defined, red edges and normal colored skin towards the center
- Bald patches on the scalp
- Thick, discolored or crumbly finger/toenails

So how is ringworm diagnosed? A healthcare provider can make a diagnosis by examining the skin. Sometimes a blue light, also called a Wood’s lamp, is used in a dark room in order to detect the ringworm. If the fungus is present, it will glow under the light. Ringworm can be treated by applying an over-the-counter antifungal or drying powder or lotion for four weeks. Antifungal pills may be prescribed for severe cases, or cases that occur in a person’s hair. Additionally, a doctor may prescribe antibiotic pills to treat a skin infection or staph that was caused due to scratching the affected area.

Barbers work with clients and their hair, typically, so it is important for all barbers to be aware of the symptoms of this disease in order to best protect themselves and their clients. There are certain ways that an individual or barber may prevent the spread of ringworm within the workplace. These types of precautions include:

- Keeping skin and feet clean and dry
- Shampooing regularly, especially after haircuts
- Do not share clothing, towels, headgear or personal care items
- Personal care items should be thoroughly cleaned and dried after use
Now that we have discussed one type of communicable disease, we will discuss another common disease that barbers have the potential to encounter in their work environment: head lice. Adult head lice infest the head, eyebrows, eyelashes and neck of an individual and are most commonly found on the scalp behind the ears and near the neckline at the back of the head. These lice attach their eggs to base of the hair shaft. Though they can be found in anyone, head lice are most commonly found among school children. This type of lice does not spread disease, but can cause itching that may result in a secondary skin infection.

So how exactly are head lice transmitted from person to person? Transmission usually occurs from head-to-head contact with an already infected individual. Occasionally, head lice are spread by sharing clothing or articles worn or used on the head, such as hats, hair brushes and barrettes. That is why it is always a requirement for barbers to properly sterilize their combs, brushes, and any other tools that may come in contact with a client’s hair before they are used on another client.

What are some symptoms of head lice? Various symptoms of this disease may include things such as:

- A tickling feeling of something moving in the hair
- Itching caused by an allergic reaction to the bites of the head lice
- Irritability and difficulty sleeping as head lice are most active in the dark
- Sores on the head caused by scratching

Head lice can usually be discovered by using a magnifying glass and fine toothed comb to find live adult lice on the scalp or hair. If live lice cannot be found, finding eggs attached within ¼ inch of the hair base strongly suggests that a person should be treated. If no live larvae or lice can be seen, and only eggs are found, it typically indicates that the infestation is old and does not need to be treated.
Treatment for head lice is recommended for anyone who has an active infestation, and also recommended for anyone who shares a bed with someone with an active infestation. The way that these lice are killed is through application of a lice medicine called a pediculicide. This should be used as directed by the instructions which accompany the medication. This medication may be over-the-counter or may also be a prescription drug called malathion.

According to the CDC, infestations of lice can be prevented utilizing the following methods:

• Avoid head-to-head and hair-to-hair contact
• Do not share clothing such as hats, scarves, coats, sports uniforms, hair ribbons or barrettes
• Do not share combs, brushes, or towels
• Kill lice on a comb or brush used by an infected person by soaking the grooming tool in hot water (at least 130°F) for 5-10 minutes
• Do not lie on beds, couches, pillows, carpets, or stuffed animals that have recently been in contact with an infected person
• During the two days before treatment, machine wash and dry clothing, bed linens and other items worn or used by an infected person. This laundry cycle should use hot water and the drying cycle should use high heat.
• Clothing and items that cannot be washed should be dry-cleaned or sealed in a plastic bag and stored for two weeks
• Vacuum floors and furniture where infested person had close contact

Remember that head lice have a hard time attaching to smooth surfaces and cannot live long without a human host. For this reason it is not useful to use fumigant sprays or toxic fogs in an attempt to eliminate the lice.
Body Lice

Now that we have discussed head lice and what they are, we will discuss another type of lice that barbers may encounter – body lice. Adult body lice are between 2.3 and 3.6 millimeters long (about the size of a sesame seed). They are usually tan to grayish white in color and live and lay eggs on clothing and bedding, but move to the skin to feed. The eggs are usually observed on the seams of clothing or on bedding. Body lice are most commonly found among people who live under conditions of crowding and poor hygiene. According to the CDC, in the United States actual infestation of body lice tends to occur only in people who do not have access to regular (at least weekly) bathing and changes of clean clothes. These individuals may include such people as the homeless and the transient. Unfortunately, body lice are known to spread disease.

In order to prevent the spread of body lice, the best method of doing so is to practice good hygiene. This includes bathing regularly and changing into clean clothes at least once a week.

How can body lice be spread, then? Body lice are spread through:

• Direct physical contact with a person who has body lice
• Contact with clothing, bedding or towels used by someone who has body lice

Unlike head lice, which are harmless and only cause irritation to an individual, body lice can actually carry and spread infections. These lice can spread diseases such as:

• Epidemic typhus
• Trench fever
• Louse-borne relapsing fever
Although these diseases are not widespread, outbreaks can occur where people live together in unsanitary conditions. You cannot get body lice from pets. The lice must feed on human blood. If the lice fall off a person, they will die within 5-7 days at room temperature.

Symptoms of body lice may include:
- Intense itching which can lead to sores on the body
- Rash caused by an allergic reaction to the lice bites
- Thickened and discolored areas of skin in a person’s midsection due to prolonged infestation

How might a person be diagnosed if they have body lice? Diagnosis is made by finding eggs and crawling lice on the seams of clothing. Although the lice are large enough to be seen with the eyes, a magnifying glass is often used to detect the eggs.

If someone is indeed infected by body lice, it is recommended that you:
- Do not share clothing, bedding and towels used by the infested person
- Machine wash and dry clothing, bed linens and other items worn or used by an infested person.
  - The laundry cycle should use hot water and the drying cycle should use high heat.
  - Clothing and items that cannot be washed should be dry-cleaned or sealed in a plastic bag and stored for two weeks

In order to treat body lice, individuals are usually encouraged to improve their personal hygiene, including taking at least weekly showers and changing into clean clothes and bedding. Sometimes a person will additionally need to be treated with a pediculicide. However, this form of treatment is not always necessary.
We will now continue our discussion on communicable diseases by discussing one of the most prevalent diseases – tuberculosis. According to the CDC, tuberculosis (more commonly known as TB) is one of the world’s deadliest diseases. One third of the world’s population is infected and each year over 9 million people around the world become sick with TB disease. In the United States, a total of 11,545 TB cases (a rate of 3.8 cases per 100,000 people) were reported in 2009.

So what exactly is tuberculosis? TB is a contagious disease that is caused by the bacterium, Mycobacterium tuberculosis. This disease primarily attacks a person’s lungs, but can also affect the kidney, spine and/or brain. When left untreated, TB can be fatal.

Now that we know what tuberculosis is, we will discuss exactly how the disease is spread. TB is spread from one person to another through the air. This means that when a person with active TB coughs, sneezes, speaks or sings, the bacteria can be released into the air and then inhaled by someone else nearby. TB cannot be spread, however, by: kissing, sharing a toothbrush, sharing bed linens, sharing toilet seats, sharing food/drink, or by shaking someone’s hand.
While TB is a contagious disease, it’s important to know that not everyone who becomes infected with TB will get sick. When this occurs, it is called a latent TB infection. Here are some general facts that you should know in regards to TB infections:

- The only way to detect a latent TB infection is to do a TB skin test or special TB blood test
- A person with a latent TB infection does not feel sick or have symptoms
- A person with a latent TB infection is not contagious
- Many people with a latent TB infection will never actually develop the TB disease
- A person may find themselves to be sick and contagious if the TB bacteria become active and then multiply in the body
- A person who has a latent TB infection must be treated in order to prevent their infection from becoming active TB disease

Now that we have discussed the non-harmful form of TB, we will discuss TB disease. TB disease, unlike TB infection, occurs when the TB bacteria become active. This happens when a person’s immune system cannot stop the TB bacteria from growing. Some people get sick quickly because their immune system could not fight off the bacteria, while others may get sick years later, when their immune system becomes weakened due to other reasons. Here are some facts to be aware of in regards to TB disease:

- TB disease will make a person sick
- A person with TB disease is contagious
- A person with HIV is more at risk of developing TB because they have a weakened immune system
Who is at risk for developing this disease, though? According to the CDC those who are at high risk for developing TB disease include:

- People with HIV
- People who became infected with TB bacteria in the last two years
- Babies and young children
- People who inject illegal drugs
- People who are sick with other diseases that weaken the immune system
- Elderly people
- People who were not treated correctly for TB in the past

We have already discussed what TB is and how a person may contract it. Now we will discuss the symptoms of TB disease, in particular. A person with TB disease may exhibit any of the following symptoms:

- A bad cough that lasts 3 weeks or longer
- Chest pain
- Coughing up blood or sputum
- Weakness or fatigue
- Weight loss
- Loss of appetite
- Fever
- Chills
- Night sweats
(For an additional visual depiction of the differences between latent TB infection and TB disease, you may consult the chart below for assistance. This chart helps to outline the differences between the two, as they may be commonly confused).

<table>
<thead>
<tr>
<th></th>
<th>Latent TB Infection</th>
<th>TB Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symptoms</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Contagious</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Can it be detected by:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin test</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Blood test</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>X-ray</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Sputum smear</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Requires treatment</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
We will now continue our discussion about tuberculosis by discussing the methods for testing. TB testing can be performed by a doctor or local health department. There are two different types of TB tests: a skin test and a blood test. A positive result for these tests only indicates that the person has been infected with the TB bacteria; it does not indicate whether the person has a latent TB infection or the TB disease. If a person does test positive, a chest x-ray and sputum (phlegm) sample are then required in order to see if the person has the TB disease.

According to the CDC, a person should be tested for tuberculosis if:

- They have spent time with a person known or suspected to have active TB disease
- They have HIV or another condition that weakens the immune system
- They have symptoms of active TB disease
- They are from another country where active TB disease is very common
  - Most countries in Latin America, the Caribbean, Africa, Asia, Eastern Europe and Russia are more likely to have active TB than others
- They live somewhere in the U.S. where active TB disease is common
  - Places where this disease is common may include: homeless shelter, migrant farm camp, prison, jail, nursing homes, etc.
- They inject illegal drugs into their system
Both the latent TB infection and TB disease require treatment. People with the **latent TB infection** may have the potential to develop TB in the future. For this reason, these people should be treated with a drug called isoniazid (INH). The purpose of this particular drug is to kill the TB bacteria in the body. INH is usually taken for nine months, however, children and people with HIV may be required to take the drug for a longer period of time. People with **TB disease**, on the other hand, should be treated with several drugs for anywhere between 6 and 12 months. If a person with TB disease stops taking the drugs too soon, the bacteria can become resistant and this will, in turn, make the disease harder to treat.

The most important way to stop the spread of TB is for an infected person to cover their mouth and nose when they cough. It is also important for a person who is being treated for TB to take all of their medication(s) as directed by their healthcare provider. Some strains of TB have the potential to become stronger if they are not completely killed by medication.

According to the CDC, TB is one of the leading causes of death among people infected with HIV, and this is because, as we stated earlier in the lesson, people with HIV are more likely to get infections and diseases because of their weakened immune systems. However, a person with HIV who either has the latent TB infection or active TB disease can be treated to prevent damage to the body. The following are some facts about TB and HIV:

- Without treatment, HIV and TB can cause damage together and shorten the life of an infected person
- A person with both latent TB infection and HIV is more likely to develop TB disease than someone without HIV
- Living with both HIV and TB disease together is an AIDS-defining condition
Introduction to Viral Hepatitis

Later on in the course, we will discuss Hepatitis B more in depth as it relates to the field of barbering. However, for now, we will now discuss it briefly along with two other forms of Hepatitis.

According to the CDC, viral hepatitis is the leading cause of liver cancer and the prime reason that a person will need to obtain a liver transplant. About 80,000 new infections of viral hepatitis occur in the United States each year. An estimated 4.4 million people in the United States are living with chronic hepatitis and the worst part is that most of these individuals do not know that they are infected.

So what exactly is hepatitis? Hepatitis means “inflammation of the liver.” While heavy alcohol use, toxins and some medications and medical conditions can cause hepatitis, it can also be caused by viral infections. There are several types of viral hepatitis. The most common types of hepatitis are:

• Hepatitis A
• Hepatitis B
• Hepatitis C
Symptoms of Hepatitis

Each strain of viral hepatitis that we will discuss shortly may vary slightly in regards to their particular symptoms. However, the following symptoms listed are general symptoms that an individual may initially experience if they acquire this disease:

- Fatigue
- Headache
- Tenderness in the upper right abdomen
- Sore muscles and joints
- Loss of appetite
- Changes in sense of taste and smell
- Nausea
- Vomiting
- Diarrhea
- Low-grade fever
- Malaise

As this disease progresses, however, an individual’s symptoms have the tendency to increase. Additionally, more severe symptoms even develop, such as:

- Jaundice (yellowish skin and eyes)
- Darkened urine
- Foamy urine
- Light-colored stool

Now that we have discussed some of the general symptoms regarding Hepatitis, we will discuss each of the three types of this disease more in depth.
Hepatitis A

**Hepatitis A** is caused by the hepatitis A virus and it results in acute liver disease. What this means is that the disease can last anywhere between a few weeks and several months. Hepatitis A does not, however, lead to chronic infection.

So how exactly is Hepatitis A passed from person to person? According to the CDC, Hepatitis A is spread through:

- The ingestion of fecal matter (even microscopic amounts)
- Close person-to-person contact
- Ingestion of contaminated food or drinks

For this reason, the Hepatitis A vaccination is typically recommended for all children starting at age 1. Now that we have discussed Hepatitis A, we will move onto a discussion of the second strain of Hepatitis – Hepatitis B.
Hepatitis B

Hepatitis B is a strain that is caused by the hepatitis B virus. This type of infection has the potential to last merely a few weeks, or could develop into a serious, long-term illness. If it is develops into a more serious condition, Hepatitis B can actually lead to liver disease or liver cancer.

How is this particular strain passed from one person to another? According to the CDC, Hepatitis B is spread through contact with infectious blood, semen, and other body fluids from:

- Having unprotected sex with an infected person
- Sharing contaminated needles to inject drugs
- Infected mother to newborn

For this reason, the Hepatitis B vaccination is typically recommended for all infants, older children and adolescents who have not been vaccinated previously. As we will discuss later on in this course, it is also recommended for barbers.

We will now continue our discussion regarding viral hepatitis by describing the third strain that this disease can take – Hepatitis C.
Hepatitis C

**Hepatitis C** is caused by the hepatitis C virus. This type of infection can last as briefly as a few weeks, but more often than not, Hepatitis C will develop into a chronic disease. Once it develops into a chronic disease, it has the potential to lead to cirrhosis of the liver (scarring of the liver tissue) as well as liver cancer. In fact, the CDC estimates that approximately 75%-85% of people who become infected with the Hepatitis C virus will actually end up developing a chronic infection.

So now that we have discussed what Hepatitis C is, we will discuss the modes of transmission that this strain of disease can take. According to the CDC, Hepatitis C:

- Spread is most likely a result of direct, through-the-skin exposure to blood with an infected person,
  - This type of spread occurs mostly by means of injecting drugs into the system
- Has the potential to survive outside of the body at room temperature, on environmental surfaces, for at least 16 hours. The virus will be able to survive outside of the body no longer than 4 days, however.
- Transmission of Hepatitis C is possible when poor infection-control practices are used during tattooing or piercing
- Risk of transmission from unprotected sexual contact is believed to be low
Now that we have talked about the means by which this strain of viral hepatitis can be spread, we will cover ways in which hepatitis cannot be spread from person to person. Hepatitis C is **NOT** spread by any of the following methods:

- Sharing eating utensils
- Breastfeeding
- Hugging
- Kissing
- Holding hands
- Coughing
- Sneezing
- Shared food or water
- Insect bites

Currently there is no vaccine that is available for Hepatitis C. A person who has this particular infection should be monitored regularly for signs of liver disease. Treatment for this particular strain of viral hepatitis typically includes a combination of the two medicines interferon and ribavirin. However, it is important to note that not every person who has chronic Hepatitis C will react in the same way to the medications.
An additional precaution that people with this strain of the disease should take is to avoid the consumption of alcohol. They will also need to check with their healthcare provider before taking prescription pills, over-the-counter medications, and supplements. While approximately 75% to 85% of individuals who become infected with Hepatitis C virus will develop a chronic infection, approximately 15% to 25% of people who are affected by the disease will actually manage to clear the virus from their bodies without the use of treatments. This may seem like an astonishing fact, and it is! According to the CDC, experts are still not sure as to why this can occur in patients.

Additionally, according to the CDC, approximately anywhere from 8,000 to 10,000 people die every year from Hepatitis C and liver diseases related to the strain. It is important to remember that many people who are infected with Hepatitis C will not actually visibly display any symptoms of the disease. In many cases, no symptoms of the disease will manifest themselves until liver problems also begin to occur. Even if a person with Hepatitis C has no symptoms, it is important to also remember that they are not Hepatitis-free. Therefore, he or she still has the potential to spread the virus to others around them.

We previously discussed how Hepatitis C can be spread, and will now take a brief moment to reiterate how the disease is transmitted between individuals. Hepatitis C is spread when blood from a person infected with the Hepatitis C virus enters the body of someone who is not infected. Therefore, the best way to prevent the spread of this virus is to avoid sharing needles or other personal items that may be contaminated with blood with any other individual, whether you suspect that they have Hepatitis or not. As earlier stated, it is never a good idea to share needles or personal items with others to control the spread of HIV, AIDS, and other diseases.
According to CDC recommendations, a person living with Hepatitis C should not be excluded from work, school, play, child care or other settings simply because they have the disease. There is currently no evidence to suggest that individuals can get Hepatitis C from food handlers, teachers or other service providers simply by coming into contact with them. As stated above, the only way that Hepatitis C can be spread is through blood-to-blood contact. As we learned with HIV and AIDS, it is important that everyone be educated on the spread of these diseases, not only to prevent them from spreading, but also to prevent discrimination in the workplace and elsewhere.

If you happen to be within a work environment where a blood spill occurs, the CDC recommends cleaning the spill using a dilution of one part household bleach to 10 parts water. The same holds true for anywhere that there is a dried blood. Dried blood may not seem as dangerous to workers, but the truth is that it also has the potential to spread disease. Gloves should always be worn when dealing with any potentially harmful chemical, and this includes cleaning up the spill of blood.
Our discussion above regarding Hepatitis C was seemingly based on the pretenses that the person who contracted the disease was healthy to begin with. But what happens when someone who is already infected with a disease, such as HIV, for example, contracts Hepatitis as well? A Hepatitis C infection in someone who has HIV is obviously much more serious because it leads can lead to more rapid liver damage.

Here are some other facts about infections of Hepatitis C and HIV:

• A co-infection of Hepatitis C and HIV is more common in people who inject drugs
• It is estimated that between 50 and 90% of HIV-positive people who use injection drugs are infected with the Hepatitis C virus as well
• Co-infections may affect treatment of HIV
• Chronic Hepatitis C can actually be treated successfully in an HIV-positive person
Communicable Diseases and Florida Law

We have outlined some practices above that will help to aid in preventing the spread of disease within the workplace. But now we will discuss a law that also emphasizes this. Did you know that for barbers in Florida, staying home when you are sick and declining service to clients who are visible ill is not only good hygiene? It’s the law!

According to Florida Administrative Code, 61G5-20.007: “No person engaged in the practice of cosmetology or a specialty in a salon shall proceed with any service to a person having a visible disease, pediculosis, or open sores suggesting a communicable disease, until such person furnishes a statement signed by a physician licensed to practice in the State of Florida stating that the disease or condition is not in an infectious, contagious or communicable stage. No barber or person registered to practice any specialty in Florida, who has a visible disease, pediculosis, or open sores suggesting a communicable disease, shall engage in the practice of barbering or any specialty, until such barber or registrant obtains a statement signed by a physician licensed to practice in the State of Florida stating that the disease or condition is not in an infectious, contagious, or communicable stage.”

So, as you can see, proper hygiene within the workplace is integral to any practice. This is especially true in the practice of barbering, where barbers are always working in close proximity with their clients. Since we have briefly outlined some of the methods for practicing good hygiene in the work environment, we will now discuss some of these methods in depth, beginning with proper hand-washing.
Conclusion on Communicable Diseases

In addition to learning about the history of HIV and AIDS, we have spent a significant amount of time in this course discussing various communicable diseases that a barber (or truly any individual) may encounter within their work establishment. Specifically, we have covered:

- The definition of a communicable disease
- Ringworm
  - How it is spread, who can contract it, symptoms, treatments, and means of prevention
- Head lice
  - How it is spread, who can contract it, symptoms, treatments, and means of prevention
- Body lice
  - How it is spread, who can contract it, symptoms, treatments, and means of prevention
- Tuberculosis
  - How it is spread, who can contract it, symptoms, treatments, and means of prevention
- Viral hepatitis
  - Here, we discussed three of the most common strains of the virus: Hepatitis A, B, and C
  - How it is spread, who can contract it, symptoms, treatments, and means of prevention
- Additionally, we discussed some common misconceptions as they pertain to these communicable diseases.
- We also discussed how HIV has the potential to interact with these other communicable diseases.

By now, you should be quite familiar with the various types of infections and diseases that have the potential to be spread throughout a work environment from person to person. But what can be done to prevent these infections and diseases from spreading in your barbering establishment? This is what we will cover in our final section of the HIV & AIDS course.
Practicing Standard Precautions

Throughout the entirety of this course, we have gone over various communicable diseases, and listed these infections and diseases at the conclusion of our previous section. As we have learned already, each of these diseases can have potential serious health consequences. Throughout the course of our discussions, we have also learned that many people who have these diseases may show no signs of infection or any indication that they may be carrying a disease whatsoever. And this is good news if the individual has a latent infection or disease that cannot be commonly spread to another person. Thanks to advances in medical treatment, many of these people are able to live and work longer in normal environments.

But in addition to these diseases, it is important to prevent the spread of common illnesses such as colds and the flu that will inevitably occur in the workplace. So how exactly do you protect yourself and others in from these illnesses? The simplest answer to this is by practicing standard precautions.
Standard precautions are the techniques that are used in the workplace to protect workers themselves and their clients from infections that are caused by the spread of blood or any other body fluid.

There are three main types of precaution you, as a barber, can use in order to protect yourself and others against infections. They are:

- **Barrier protection**
  - This type of protection includes the use of a physical shield, such as gloves
- **Personal hygiene**
  - This type of preventative measure includes proper hand-washing, as well as keeping your work station clean
- **Disinfection**
  - This category refers to the removal of infectious agents from your tools and work station
Barrier Protection

In our discussion regarding practicing standard precautions, will first cover what barrier protection is and how to utilize it in the workplace. Barrier protection is the use of a physical shield between you and your client. The proper use of barrier protection can include some of the following:

- **Gloves** - Service provider should always wear gloves whenever they come into contact with their clients. They should also be sure to wear the appropriate gloves whenever there is a possibility of contact with body fluids, and this includes during tasks such as:

- **Masks** - Service providers should wear a mask whenever there is a possibility of splashing or splattering of body fluids.

- **Smocks** - Service provider and client should wear smocks if clothing or skin are likely to come in contact with chemicals or other contaminants
Personal Hygiene

Now that we have discussed barriers that a barber may enlist in order to help prevent the spread of germs and communicable diseases within the workplace, we will briefly discuss personal hygiene as it pertains to the barber and their work establishment. Because barbers typically work in close proximity of their clients and other employees, it is also important to practice proper personal hygiene. This proper hygiene can include any or all of the following:

• Do not go to work if you have symptoms of an illness such as a cold, the flu, a stomach virus or strep throat
• Make it a policy to politely decline service to clients who show symptoms of a contagious illness such as the ones listed above. You may then offer to reschedule their appointment for a time when they are feeling better
• Avoid direct contact with clients and any equipment that may be potentially contaminated if you have open lesions, dermatitis or another skin rash on the surface of your skin.
• Wash your hands:
  • Before you come in contact with a client
  • After you come in contact with a client
  • After you come in contact with a source of possible contamination
  • After you remove gloves
• Use the inside of your arm to cover your mouth when you cough or sneeze, not the palm of your hand so that you may prevent the spread of germs.
• Avoid touching your eyes, nose or mouth in the workplace
• Keep your work station clean
According to the CDC, proper hand washing is one of the most effective ways to prevent the spread of many types of infections and illnesses. That is why it is important to wash your hands at home, at work, and everywhere else. When and how to wash your hands may seem obvious, but it’s important to know the proper technique because clean hands prevent germs from spreading from one person to another, and throughout an entire community or work environment. Hands should always be lathered with antibacterial soap, before being washed thoroughly with soap and water. Not only hands however should be washed – barbers should also wash any exposed part of their arms. We will discuss this more in depth shortly.
Hand-Washing

It may seem elementary to discuss hand-washing, which most people learn when they are children in elementary school. However, we have already learned that a vast array of communicable diseases exists, and a majority of them can be prevented simply by returning to the basics of hygiene. In our case, this begins with a discussion on hand-washing. Additionally, throughout this section, we will discuss how proper hand-washing in the barbering environment can be beneficial to you and your customers. And though it may seem to be an absurdly simple concept or one that should be common sense knowledge, the truth is that proper hand-washing literally can save your life.

According to the CDC, hand washing is one of the most effective ways to prevent the spread of many types of infections and illnesses. That is why it is important to ensure that you take your proper hand-washing techniques everywhere with you – to work, to the grocery store, to an amusement park, etc. When and how to wash your hands may seem obvious, but it’s important to know the proper technique to do so, because clean hands prevent germs from spreading from one person to another.

We have already gone over some examples of when barbers should wash their hands, such as before and after working with a client and after wearing gloves. Here are some additional circumstances when it is important to wash your hands:

- Before, during and after preparing food
- Before eating food
- After using the restroom
- After changing diapers or cleaning up a child who has used the restroom
- Before and after caring for someone who is sick
- After blowing your nose, coughing or sneezing
- After touching garbage
- Before and after treating a cut or wound

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Hand-Washing, continued

The CDC recommends that everyone wash their hands with soap and water. A barber’s work establishment is required to have both soap and water readily available to use. If, for some reason, soap and water are not available, the CDC recommends that a barber (or any other individual) use an alcohol-based hand sanitizer that contains at least 60% alcohol.

Now that we have discussed why hand-washing is an important habit to have within the work environment, we will discuss the steps that you will need to take in washing your hands. The steps to proper hand washing are as follows:

• Wet your hands with clean running water (warm or cold) and apply soap
• Rub your hands together to make lather and scrub them well. Be sure to scrub the backs of your hands, between your fingers, and under your nails
• Continue rubbing your hands for at least 20 seconds
• Rinse your hands well under running water
• Dry your hands using a clean towel or air dry
Disinfection

Now that we have talked about why it is important to properly wash your hands, we will cover other methods that you may keep your barbering establishment clean and sanitary for both yourself and your customers. Our next topic of consideration is regarding disinfection. Disinfection refers to the removal of infectious agents from surfaces including the skin, your tools and your work station. There are actually three levels of disinfection:

- Use of an antiseptic
- Use of a disinfectant
- Sterilization

What exactly are disinfectants and antiseptics? An antiseptic is the weakest out of the three methods of disinfection that we have listed above. The purpose of antiseptics is to control the growth of bacteria and germs. It is important to note, however, that antiseptics do not kill bacteria. These are not recommended for disinfecting equipment (tools such as clippers, scissors, etc.), but are gentle enough to be used on the skin. Various examples of an antiseptic include:

- Alcohol – A 50% to 60% solution can be used on the skin
- Iodine – A tincture of iodine, 2% U.S.P. can be used on the skin
- Hydrogen Peroxide – A 3% to 5% solution can be used for minor wounds
Disinfection, continued

So what are disinfectants, then? Disinfectants are actually stronger than antiseptics. They have the ability to destroy germs and prevent them from multiplying. Disinfectants can kill a variety of: viruses, fungi, and dangerous bacteria. In the workplace it is recommended that a hospital-level disinfectant approved by the EPA is used to clean equipment, work areas and spills of blood or other body fluids. Some examples of a disinfectant include:

- Lysol
  - Lysol can be used out of the container to wipe surfaces and floors
- Quats (Quaternary ammonium compound)
  - This type of disinfectant can be used to disinfect tools by soaking them in it for anywhere between 10 and 15 minutes.
  - This type of disinfectant can also be used to clean surfaces and work areas.
Sterilization

We have previously discussed methods of practicing standard precautions that were beneficial to the work environment. We will now discuss the most powerful type of disinfectant that barbers can utilize – sterilization.

Sterilization is the strongest level of disinfection because it is the process of destroying all bacteria, whether it is harmful to people or not. Now we will discuss some typical methods of sterilization that can be utilized within the barbering environment. Common methods of sterilization used in the workplace may include any of the following:

Boiling

• Towels, linens and heat/water resistant instruments can be submerged in water that is heated to 212°F

Steaming

• Special equipment can be used to steam-sterilize equipment. The manufacturer’s instructions should be followed for this method in order for it to be effective.

Irradiation

• Instruments can be sterilized by ultra-violet light rays in an enclosed cabinet. However, approval of this method differs from state to state.

Chemical solutions

• A hospital-level disinfectant can be used to sterilize equipment. To sterilize, the solution should be mixed according to sterilization instructions on the container, and the instruments should be immersed for an instructed length of time (typically 10 minutes).
Guidelines for Sterilization of Specific Tools

It may seem quite simple and common sense to discuss sterilization of tools and, we will reiterate some of the principles that you have just learned throughout the remainder of our HIV/AIDS course. Since sterilization and sanitation are integral parts of the barber’s work environment, we will now discuss various methods for sterilizing and sanitizing specific tools within your workplace.

For now, we will just discuss the general guidelines for sterilizing specific tools. It is important to know that in Florida, all establishments like barber shops and salons must be equipped with and utilize wet sanitizers. These sanitizers must contain either hospital level disinfectant or EPA approved disinfectant that is sufficient for disinfecting practices. A wet sanitizer is any receptacle that contains a disinfectant solution and is large enough to allow for a complete immersion of the articles. A cover for the wet sanitizer must be provided. For complete details about Florida salon sanitation requirements, see Florida Administrative Code, 61G5-20.002.

Now, we will spend the next few minutes briefly discussing the sterilization and sanitation practices of specific tools in the workplace, including:

- Combs and brushes
- Metal tools
- Electric tools
Sterilizing Combs and Brushes

First, let’s discuss the sterilization of combs and brushes. Both of these items are of significant importance in the field of barbering and have specific guidelines governing their sterilization practices. In Florida for example, the use of a brush, comb or other article on more than one patron without being disinfected is prohibited. Here are a few steps that are necessary in order to properly clean these tools:

• Remove hair from combs and brushes
• Fill a clean, sterilized container with a solution of hospital-level disinfectant as directed by the product’s instructions
• Immerse combs and brushes in the solution for a minimum of 20 minutes or as otherwise instructed
• Remove combs and brushes and rinse in clean water
• Dry thoroughly with a clean towel
• Store in a dust-free place
Sterilizing Metal Tools

Now that we have discussed the sterilization of important implements such as combs and brushes, we will now cover some other important tools within the work environment – metal tools. Metal tools such as scissors, razors, etc. have specific guidelines in regards to cleaning. The process of sterilizing these tools includes the following steps:

• Fill a clean, sterilized container with a solution of hospital-level disinfectant as directed by the product’s instructions
• Immerse non-electric metal tools, such as shears and tweezers, in the solution for a minimum of 10 minutes or as otherwise instructed
• Remove tools and rinse in clean water
• Dry thoroughly with a clean towel
• Store sterilized tools in a sterile location or in individual clean containers until they are ready for use
• If the tools could be damaged from immersing in a solution, wipe cutting blades and/or other areas of contact with a hospital-level disinfectant
• Never reuse needles used for tattoos or piercing. Discard these items in a puncture resistant sharps container designed specifically for this purpose.
Sterilizing Electric Tools

Since we have now spent some time discussing non-electric tools within the workplace, it is important that we also discuss electric tools and their sterilization as well. Barbers also utilize electric tools quite frequently within their workplace, especially in regards to hair tools (like clippers, for instance). These tools have specific guidelines, and barbers should follow the guidelines below:

- Clean electric tools such as curling irons and electric clippers as instructed by the manufacturer
- Typically, a cotton pad dipped in a solution of 70% alcohol can be used to clean the surfaces of unplugged electric tools
- Store dry, sterilized tools in a sterile place or in individual clean containers until they are ready for use
Additional Shop Guidelines

We have outlined a variety of ways to keep you healthy and safe within the workplace. Additionally, here are some more guidelines to maintain a good work environment:

• To prevent accidents, the workplace should be well lit
• The air should be well ventilated to prevent the concentration of potentially toxic chemicals
• Floors should be kept clean by:
  • Sweeping away hair and other waste from the floor often
  • Store waste in a closed container
• Do not use objects dropped on the floor until they are sterilized
• Do not place tools such as combs or hairpins in your mouth
• Do not store combs or other tools in your pocket
• Keep premises free of vermin such as rodents and flies
• No animals are allowed in shops, except fish in closed aquariums and animals specifically trained to assist someone with a disability
• Do not eat at your work station
Conclusion

Now that you have completed this lesson, you should have more knowledge of HIV and AIDS. We have learned how HIV and AIDS are contracted, how they are transmitted, and how they can be prevented. We have discussed what happens to an HIV-positive patient, including: what types of treatment regimens they may be given, what tests they will encounter, and how to adhere to a treatment regimen. We’ve also discussed proper attitudes regarding those who have these diseases, and what HIV and AIDS patients can do in order to live functional and productive daily lives. Additionally, we have also discussed what other kinds of communicable diseases may be found in the workplace. Finally, we concluded our discussion on HIV and AIDS by also discussing how a barber may properly protect both him or herself and their client from being infected by any disease or illness in the workplace. We covered methods by which a barber may protect him or herself and also how he or she should properly sterilize and sanitize the variety of tools and equipment that they encounter on a daily basis.
Course Instructions

Thank you for choosing the 2-Hour HIV/AIDS Course for Barbers. Please follow the instructions below to complete the course:

☐ **Step 1:** Read the course materials for the 2-Hour HIV/AIDS Course for Barbers.

☐ **Step 2:** Take the Final Exam. You must get at least 15 out of the 20 questions correct in order to pass the course.

☐ **Step 3:** Exam Grading. Fax your completed exam to us at 407-628-4255 and we will grade it for you. Upon completion, you will receive your certificate of completion by e-mail. OR select the “My Account” button along the top of your screen and hit “Begin Exam” to complete the exam online.

Final Exam

Please follow the instructions below to complete the final exam:

☐ **Step 1:** Ensure that your first and last name are legibly written on the answer sheet.

☐ **Step 2:** Read each question carefully.

☐ **Step 2:** Circle only one answer.

You have unlimited attempts to pass. Good luck!
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
<th>11. Hepatitis C can be spread through kissing.</th>
<th>12. Not sharing clothes and towels between individuals can prevent the spread of ringworm.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. HIV and AIDS are curable diseases.</td>
<td>a. True</td>
<td>a. True</td>
<td>a. True</td>
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<tr>
<td></td>
<td>b. False</td>
<td>b. False</td>
<td>b. False</td>
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<td>2. AIDS can be transferred through blood.</td>
<td>a. True</td>
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<tr>
<td></td>
<td>b. False</td>
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<td>3. The only way for a person to know if they have HIV is to be tested.</td>
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<td></td>
<td>b. False</td>
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<td>4. Tuberculosis is spread through the air.</td>
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<td></td>
<td>b. False</td>
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<td>5. The American with Disabilities Act (ADA) prohibits discrimination in</td>
<td>a. True</td>
<td></td>
<td></td>
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<td>the workplace.</td>
<td>b. False</td>
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<td>6. Barrier protection is NOT a way to protect you from the spread of HIV,</td>
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<td>AIDS, or any other communicable disease.</td>
<td>b. False</td>
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<td>7. Hand-washing is one of the most effective ways to prevent the spread</td>
<td>a. True</td>
<td></td>
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<td>of germs.</td>
<td>b. False</td>
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<td>8. Alcohol, iodine, and hydrogen peroxide are examples of antiseptics.</td>
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<td></td>
<td>b. False</td>
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<td></td>
<td>b. False</td>
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<td>10. HIV-positive patients will receive three tests at their initial</td>
<td>a. True</td>
<td></td>
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<tr>
<td>appointment with a healthcare provider.</td>
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<td></td>
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<tr>
<td>11. Hepatitis C can be spread through kissing.</td>
<td>a. True</td>
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<td></td>
<td>b. False</td>
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<tr>
<td>12. Not sharing clothes and towels between individuals can prevent the</td>
<td>a. True</td>
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<tr>
<td>spread of ringworm.</td>
<td>b. False</td>
<td></td>
<td></td>
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<tr>
<td>13. One of the methods to adhering to an anti-HIV medication treatment</td>
<td>a. True</td>
<td></td>
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<tr>
<td>regimen is by keeping a medicine diary.</td>
<td>b. False</td>
<td></td>
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<tr>
<td>14. By 2014, the Affordable Care Act will prohibit insurers from</td>
<td>a. True</td>
<td></td>
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<tr>
<td>denying coverage to anyone or imposing limits on coverage.</td>
<td>b. False</td>
<td></td>
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<tr>
<td>15. Individuals with HIV are less susceptible to cancer.</td>
<td>a. True</td>
<td></td>
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<tr>
<td></td>
<td>b. False</td>
<td></td>
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<tr>
<td>16. HIV in and of itself does not kill a person.</td>
<td>a. True</td>
<td></td>
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<td></td>
<td>b. False</td>
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<tr>
<td>17. Latent TB infection is the same as TB disease.</td>
<td>a. True</td>
<td></td>
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<tr>
<td></td>
<td>b. False</td>
<td></td>
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<tr>
<td>18. Properly adhering to an anti-HIV treatment regimen will:</td>
<td>a. Help the anti-HIV medications work</td>
<td></td>
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<td></td>
<td>effectively in order to reduce the</td>
<td></td>
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<td></td>
<td>amount of HIV within the body</td>
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<td></td>
<td>b. Assist in preventing drug-resistance</td>
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<tr>
<td></td>
<td>c. Both answers are correct</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>d. Neither answer is correct</td>
<td></td>
<td></td>
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<tr>
<td>19. It is illegal in Florida to deny barbering services to anyone,</td>
<td>a. True</td>
<td></td>
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<tr>
<td>regardless of their health.</td>
<td>b. False</td>
<td></td>
<td></td>
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<tr>
<td>20. If, for some reason, soap and water are not available in an</td>
<td>a. True</td>
<td></td>
<td></td>
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<tr>
<td>establishment, the CDC recommends that a barber (or any other</td>
<td>b. False</td>
<td></td>
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<tr>
<td>individual) use an alcohol-based hand sanitizer that contains at least</td>
<td></td>
<td></td>
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<tr>
<td>60% alcohol.</td>
<td>a. True</td>
<td></td>
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<tr>
<td></td>
<td>b. False</td>
<td></td>
<td></td>
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</tbody>
</table>