

AIDS SERVICES COALITION TRAINING

Human Immunodeficiency Virus (HIV)

Acquired Immunodeficiency Syndrome (AIDS)



Sessions

1. HIV/AIDS
2. Labs (CD4 / Viral Load)
3. Immunizations / Vaccines
4. Nutrition / Health / Exercise
5. Medications (ART)
6. Prevention
7. Mental Health / Substance Abuse

1-2-1 Haven House
Hattiesburg, MS

AIDS SERVICES COALITION TRAINING

The information in this training is the most current available and is intended to provide an understanding of what HIV/AIDS is and ways it can and cannot be transmitted. It also explains how the virus is measured in our bodies and prevention methods for other sexually transmitted diseases.

Session 1 - Time: 1 hour

HIV (Human Immunodeficiency Virus)

1. What is HIV?

HIV stands for **Human Immunodeficiency Virus**. This virus infects those who participate in risky behaviors that allow the virus to be passed from one person to the next. Risky behaviors are activities such as having unprotected sex and using needles that have been used and are not sterile or clean. You can become infected with HIV from anyone who is infected even if they don't look sick and even if they haven't been tested positive yet.

The virus attacks and weakens the immune system so that the body cannot fight off sickness or infections. Your body tries to fight back by creating antibodies which protect against viruses such as colds, flu, measles and HIV. Eventually, the virus weakens your immune system so that it becomes easy to develop *opportunistic infections*. Pneumonia is an example of an *opportunistic infection*.

HIV is only transmitted by taking part in activities where there is exchange of body fluids with someone infected with HIV. The virus can be transmitted by having unprotected vaginal, anal, or oral sex and sharing a needle with someone infected with HIV. Body fluids that transmit HIV are blood, semen and pre-ejaculatory fluids, vaginal and cervical fluids and breast milk.

HIV is not transmitted through coughing, sneezing, touching, kissing on lips or cheeks, toilet seats, saliva or mosquito bites.

Answer these questions and discuss your answers:

1. What does HIV stand for? _____
2. What are some risky behaviors to avoid? _____
3. How does HIV result in opportunistic infections? _____
4. How can HIV be transmitted? _____
5. What are ways HIV can not be transmitted? _____

2. What is AIDS

AIDS stands for Acquired Immune Deficiency Syndrome:

- ✓ Acquired means you can get infected with it.
- ✓ Immune Deficiency means a weakness in the body's system that fights disease.
- ✓ Syndrome means a group of health problems that makes up a disease.

If you get infected with HIV, your body will try to fight infections by making antibodies to fight HIV. A blood test for HIV looks for these antibodies. If you have them in your blood, it means you are infected with HIV. People who have HIV are said to be "HIV positive."

Being HIV positive, or having HIV disease is not the same as having AIDS. Many people are HIV positive but do not have any complications. Without knowing and without medical care, it slowly wears down the immune system. Viruses, parasites, fungi and bacteria that usually would not cause serious problems can make you very sick if your immune system is damaged and result in opportunistic infections.

You don't actually "get AIDS" as you often hear people say. AIDS is a result of having HIV. If you are infected with HIV you might develop AIDS later.

In the mid 1990s, AIDS was a leading cause of death. However, newer treatments have cut the AIDS death rate significantly.

Answer these questions and discuss your answers:

1. What does AIDS stand for? _____
2. What does "HIV Positive" mean? _____
4. Does having HIV mean you have AIDS? _____
5. What does "Immune Deficiency" mean? _____

"Having HIV does not mean you have AIDS."

Session Notes

Session 2 - Time: 1 hour

1. T-Cells - Two main types.

✓ **T-4 cells**, also called CD4, are “helper” cells. They lead the attack against infections. CD4 cells are a type of lymphocyte (white blood cell) and are an important part of the immune system. The CD4 cell count is a key measure of the health of the immune system. The lower the count, the more the immune system is affected and can result in AIDS. According to the Center for Disease Control, anyone who has less than 200 CD4 cells is considered to be AIDS defined.

CD4 cells are important because when HIV infects humans CD4 cells are the most affected. The virus becomes part of the cell and when the CD4 cells multiply to fight the infection they also make more copies of HIV.

When someone is infected with HIV for a long period of time, the number of CD4 cells they have (their CD4 cell count) goes down. This is a sign that the immune system is being weakened. The lower the CD4 cell count, the more likely the person will develop symptoms and complications. A normal CD4 count is between 500 to 1500 cells.

There are millions of different families of CD4 cells. Each family is designed to fight a specific type of germ. When HIV reduces the number of CD4 cells, some of these families are wiped out totally. This means you lose the ability to fight off the particular germs for which those families were designed. When this happens your chance of developing opportunistic infection is increased.

CD4 counts are also used by your doctor to indicate when to start certain types of drug therapy. When the CD4 count goes below 350, most healthcare providers begin *Antiretroviral Therapy (ART)*. More conservative healthcare providers might wait until the CD4 count drops near 200 before starting treatment. Because they are such an important indicator of the strength of the immune system, official treatment guidelines in the United States suggest that CD4 counts be monitored every 3-4 months.

✓ **T-8 cells (CD8)** are “suppressor” cells that end the immune response. CD8 cells can also be “killer” cells that can kill cancer cells and cells infected with a virus.

Answer these questions and discuss your answers:

1. Why are CD4 cells so important to good health? _____
2. What is considered a normal count for CD4 cells? _____
3. What increases as your CD4 decreases? _____
4. What must the CD4 count be for a person to be diagnosed as “AIDS defined?” _____
5. How does the doctor use the CD4 count? _____
6. How often is it suggested to check a person's CD4 count? _____

The CD4 cell count is a key measure of the health of the immune system.

2. Viral Load

The Viral Load is the measure of the amount of virus in your blood. CD4 counts are used together with the **viral load** to monitor your health immune system.

The best viral load test result is “undetectable”. This does not mean that there is no virus in your blood. It simply means there is not enough for the test to find and count. Undetectable depends on the sensitivity of the test used on your blood sample. Unlike the CD4 count where the higher the number is better, with the viral load count the lower the number is better.

The viral load test is helpful in several ways:

- ✓ Medical researchers can use the test to indicate HIV is never latent but is always multiplying.
- ✓ The test can detect a viral load a few days after HIV infection.
- ✓ The higher the viral load, the faster the HIV disease progresses. Your health care provider uses viral load counts to help monitor and individual’s health.
- ✓ Finally, the viral load test is valuable for managing therapy to see if the antiretroviral drugs are controlling the virus.

There is no magic number for viral loads. All we know is that a lower viral load count is better and seems to mean a longer healthier life.

Some people may think that if their viral load is undetectable they can’t pass the HIV virus to another person. This is not true. There is no safe level for viral loads. Although the risk is less, **you can pass HIV to another person even if your viral load is undetectable.**

Answer these questions: Fill in the blanks

1. The best viral load test result is _____.
2. Unlike the CD4 count where the _____ the number is better, with the viral load count the _____ the number is better.
3. You can pass HIV to another person even if your viral load is _____.

The best measure of viral load is “undetectable.”

Session Notes

Session 3 - Time: 1.5 hours

Nutrition and HIV

Good nutrition is vital to your everyday health and well-being. Eating healthy foods enable you to function normally, feel good, and look good. Eating the right foods can strengthen your immune system. Eating proper food can make a huge difference in how often you get sick and how quickly you can recover. A healthy diet can help you maintain a healthy weight and fight infection and prevent disease.

Your body is constantly working all day, seven days a week. Even at night, your body continues to work, but at a slower pace. In order for your body to help muscles work, digest food, regulate your body temperature, eliminate waste, fight infection, keep bones strong, and perform numerous other functions, energy (calories) is needed from food in the form of protein, fats and carbohydrates.

People with HIV/AIDS tend to lose muscle tissue and protein stores resulting in fat loss. There are three major reasons why you may lose weight, experience muscles wasting, and develop HIV-related malnutrition:

1. If you have a poor appetite, you may not eat enough to provide your body with essential nutrients it needs.
2. Your body's metabolism speeds up with an active infection, so you need extra calories and protein to maintain your weight.
3. You may experience malabsorption like chronic, diarrhea, which cause your body to lose valuable calories, proteins, and vitamins.

✓ Recommended Daily Allowances

- A minimum of five vegetable servings
- A minimum of four fruit servings
- A minimum of three protein servings (dairy products, fish, poultry, meat, beans, nuts, seeds, peas)
- A minimum of ten carbohydrate servings (breads, crackers, cereals, pastas, rice)

✓ Changing Your diet

A major nutritional goal for HIV disease is to build or maintain your muscle weight. A diet high in calories can prevent your body from burning and wasting muscle tissue. Foods that give your body energy and provide protein are needed. A high protein, high calorie diet rich in starches, carbohydrates, and moderate fats is best for help preventing muscle wasting with HIV disease.

High Calorie Meal Plan

HIV infection increases your body's need for energy, so it is important to eat enough foods high in calories. High energy foods include complex carbohydrates or starches, simple sugars, and fats,

complex carbohydrates or starches are the best type of energy to build and maintain your muscle tissue. Eat generous portions of: Pasta, (macaroni, spaghetti, etc.), rice (brown or white), oatmeal, cream of wheat, corn meal, grits cold cereals, breads, tortillas, muffins, biscuits, crackers dumplings, pancakes and waffles.

In addition, potatoes, yams, corn, green peas, lima beans, kidney beans, navy beans, lentils, pinto beans, black-eyed peas, and chickpeas provide energy.

Simple sugars give you extra energy to gain muscle and also fat weight. Snack on raisins, dates, apricots, pineapple, papaya, and prunes. Add jelly, jam, honey and maple syrup to hot and cold cereals. Top ice cream and yogurt with fresh fruit. Snack on cakes, pies and cookies. (Note: If you are a diabetic, check with your Registered Dietician. Simple sugars are not a good source of calories for you.)

Fats give you extra energy to gain and maintain weight. Add butter, sour cream, cream cheese, and peanut butter to sandwiches, crackers, pancakes, waffles, and cereal. Add gravy to meat, chicken, turkey and mashed potatoes. Add sour cream, grated cheese, and butter mashed and baked potatoes. Top salads with extra dressing. Add condensed milk, evaporated milk, cream, or whole milk to cereals. (Note: if you can tolerate fat, eat moderate amounts. If you need to minimize fat, choose low-fat butter, sour cream, and cream cheese.)

✓ To increase your calorie intake:

- Eat six small meals throughout the day.
- Keep snacks at your bedside that do not require refrigeration, pack non-perishable items to snack when you are away from home.
- Exercise to increase your appetite.

High Protein Meal Plan

Eating enough protein aids your immune system in fighting and recovering from infections. Protein also builds muscle. Protein can be obtained from animal or vegetable sources.

✓ Animal Protein

Fish, chicken, turkey, lamb, beef, pork, rabbit, venison, liver, and gizzards, eggs, cheese, milk and other daily products.

✓ Vegetable Protein

Kidney beans, black-eyes peas, pinto beans, split peas, lentils, walnuts, cashews, almonds, Brazil nuts, peanut butter, and sesame seeds.

✓ **Suggestions to increase protein**

- Make egg salad sandwiches, add sliced eggs to salad, eat desserts with eggs.
- Add diced meat to soups, salads, and sauces. Add tuna, chicken, salmon, sardines, shrimp or crabmeat to casseroles and salads.
- Grate cheese into soups, salads, omelets, baked potatoes, and steamed vegetables. Eat cottage cheese with crackers, fruit, or tomatoes, snack on peanut butter or cheese crackers or cottage cheese between meals.
- Spread butter on toast, bread, crackers, fruit, or vegetables.
- Creative Snack Ideas
- Peanut butter on celery.
- Granola, walnuts, and oats mixed in applesauce.
- Fruit smoothies, (milk, fruit, and granola mix in blender).
- Yogurt
- Fruit filled bars.
- Raisin bread.
- Fruit
- Nuts

✓ **Suggestions to improve Nutrition**

- Choose colorful foods such as red, green, orange, and yellow fruits and vegetables.
- Add fruits and nuts to salads.
- Eat healthy snacks such as fruit, raw (washed) vegetables.
- Eat small frequent meals.
- Avoid excessive coffee, tea, caffeinated soda, and alcohol. Steam vegetables instead of boiling to retain flavor.
- Take a multi-vitamin.
- Add your favorite spices to sauces to dip vegetables.
- Avoid recreational drugs (cocaine, marijuana, and crystal meth), cigarettes, and alcohol. These substances cause your body to use calories that you can't spare.

✓ **Food Safety**

- Do not eat raw seafood.
- Wash fresh fruits and vegetables thoroughly
- Do not buy bruised fruits or vegetables.
- \Check expiration dates.
- Do not allow frozen foods to thaw until you are ready to use them.
- Clean cutting boards with hot water.
- Wash dish towels in hot water.
- Use zip lock bags to keep vegetables fresh.
- Wash hands before handling food.
- Thaw meat in refrigerator, not on the counter.

Session 4 - Time: 1.5 hours

Medications (ART)

Session 5 - Time: 1.5 hours

Prevention for Positives

HIV positive individuals deserve to have as full and satisfying sexual and emotional lives as anyone else. Prevention for positives aims to inform people living with HIV on:

- 1) How to avoid infecting others with HIV
- 2) How to avoid getting sexually transmitted diseases such as herpes, gonorrhea, Chlamydia, syphilis, and hepatitis C and B.

The goal for Prevention for Positives is to help people living with HIV to avoid becoming infected with other illnesses (co-infections), especially sexually transmitted diseases. These other illnesses may put a strain on the immune system, especially if it is weakened because of HIV. In addition, HIV positive people can get infected with another strain of HIV that may be different from the strain they already have. Certain mutations (genetic changes) in HIV can make it resistant to some HIV medications. These drug-resistant mutations can be transmitted from one HIV positive person to another. Why does this matter? Because some HIV treatments might not work even before a person has taken them. Prevention for positives is also important to slow the spread of new HIV infections.

Prevention for Positives focuses on two main areas:

- 1) Sexual behavior
- 2) Injection drug use.

However, just like HIV negative people HIV positive individuals should practice general prevention for all illnesses including chronic diseases such as diabetes and hypertension, and acute illnesses such as the flu or chicken pox. **It is important for people with HIV to be aware that any health/prevention message for the general public may be extra important for themselves because of the status of their immune system.**

The goal for Prevention for Positives is to help people living with HIV avoid becoming infected with other illnesses.

What actions should an HIV positive person avoid?

✓ **HIV positive people should not have unprotected sex (oral, anal, or vaginal).** This includes fisting, handballing, or fingering. In addition, several scientific studies have shown that men who are uncircumcised can get HIV easier than men who are circumcised. This is because the foreskin

provides additional access for HIV to enter the body. Therefore, HIV positive men who are uncircumcised should be extra careful during sex, using protection to prevent re-infection with HIV.

✓ **HIV positive people who use recreational drugs should not share drug-works** (e.g., needles, crack pipes, cocaine straws, etc.) with other people. Shared drug-works can contain hepatitis B or C, or HIV.

✓ **Important** - People should only get tattoos from individuals or businesses that use clean needle and a clean ink pot and fresh ink.

Answer these questions and discuss your answers:

True or False (circle correct answer)

1. *T F - HIV positive people can get infected with another strain of HIV that may be different from the strain they already have.*
2. *T F – It is alright for HIV positive people to have unprotected sex (oral, anal, or vaginal)*
3. *T F - Men who are uncircumcised can get HIV easier than men who are circumcised.*

Session Notes

Safer sex for Positives

How can an HIV positive person make sex “safer”? Research studies have shown that viral load plays a part in how likely a person will transmit HIV to someone else through sex. An HIV positive person can reduce transmission risks by keeping her or his viral load as low as possible through the use of HIV medications. But other research studies have shown that the viral load found in blood can be different from the viral load that is in the genital tract and fluids. Often, the viral load in the genital tract can actually be higher than that in the blood, which is where HIV viral load is usually measured. Therefore, it is still important that a person with HIV **always** practice safe sex with his/her partner(s). Sexual contact with another person can be made safer in the following ways:

1. Anal Sex- Correctly using a latex condom with a water base lubricant (for example, K-Y jelly) and using a new condom with each new partner and with each new act of Intercourse (penetrative sex)
2. Vaginal Sex- SAME AS ABOVE

3. Oral Sex- Using a dental dam (small piece of plastic that can be bought at sex shops or Dental supply stores) or non- microwavable plastic wrap (which can be bought at the Grocery store) or a latex condom cut lengthwise (from the opening to the tip) for oral sex. On a woman or anal sex. Use an intact condom for oral sex on a man.
3. Other penetrative sex- (fisting, handballing, or fingering)– Using a latex glove and, if necessary, a water based lubricant.
4. Sex toys/other– Cleaning sex toys with soap and water after each person uses them, and not performing sexual activities that will result in either person bleeding.

How can an HIV + person make using drugs “safer”?

1. Using only clean needles or needles that have been and will be used only by the same Person.
2. Using clean cotton swabs and other drug works.
3. Hiding drug equipment so others cannot use it when no one is looking.
4. GETTING INTO A REHAB PROGRAM TO STOP USING DRUGS COMPLETELY.

1-2-1 HAVENHOUSE HAS A STRICT NO DRUG POLICY

Answer these questions and discuss your answers:

True or False (circle correct answer)

1. *T F - Research studies have shown that viral load plays a part in how likely a person will transmit HIV to someone else through sex.*
2. *T F – It is safe for HIV positive people to have unprotected sex (oral, anal, or vaginal)*
3. *T F - Men who are uncircumcised can get HIV easier than men who are circumcised.*
4. *T F - Studies have shown that the viral load found in blood can be different from the viral load that is in the genital tract and fluids.*

✓ Major barriers to prevention for HIV positive people:

1. No disclosure (not telling others). HIV positive people can prepare themselves for disclosure to others by practicing by themselves or a friend. People can also get ideas on ways to disclose from counselors, support group and their healthcare giver.
2. No access to condom/dental dams/lubricants–these items can be hard to find in the heat of the moment so **ALWAYS BE PREPARED** by buying condoms.

Note: We have plenty of condoms at 1-2-1 Haven House. Just ask. You can also get them from the Health Department or your healthcare provider.

3. No access to clean needles for injection drug use.

Know the Facts!

Myth - You can tell by looking at someone whether or not he/she has HIV.

False - A person who looks healthy could be infected.

Myth - During anal sex only the person on the receiving end is at risk

False - Both partners are at risk. Anal sex is very risky because of small wounds that happen on the penis and the rectal tissue during sex.

Myth – People who have HIV get sick quickly.

False – People can stay healthy for many years.

Myth – Having just one partner at a time protects you from HIV.

False – Anyone can be infected. The only way to know is to be tested regularly.

Myth – Sex is safe and you won't get infected if a man pulls out before cumming.

False – Even if he pulls out, both people could still be exposed to HIV. Pre-ejaculatory fluid in an HIV male contains the virus. The cervical secretion of an HIV positive female can also contain the virus.

Myth – A person has to have a lot of sex partners to be at risk for HIV.

False - It only takes one partner with HIV for you to become infected.

Myth - HIV/AIDS is only a gay man's disease.

False - HIV is a HUMAN disease. You are at risk if you are having unprotected sex.

Myth - AIDS can be cured.

False - There is no cure for AIDS.

Session 6 - Time: 1 hour

Mental Health / Substance Abuse