

# HIV & AIDS, year 2, day 1

Grade 5 or 6, Lesson #17

## Time Needed

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45-60 minutes

## Student Learning Objectives

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To be able to...

1. Explain that HIV is a blood-borne virus which attacks to the body's immune system.
2. Distinguish between:
  - (a) Being infected with HIV
  - (b) Being diagnosed with AIDS
3. Explain that the disease is transmitted only via blood, semen, vaginal fluid and breast milk.
4. Understand that, under certain circumstances, anyone can contract the disease.
5. Explain that the disease is not transmitted through casual contact.
6. Understand the concept of risk behavior and know which behaviors are safe and which are not.

## Agenda

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1. Explain the lesson's purpose.
2. Explain the characteristics of HIV and AIDS.
3. Describe how HIV is transmitted and who can get the infection.
4. List ways one cannot contract it.
5. Re-emphasize risk behaviors: Injection drug use and sexual intercourse.
6. Define the acronym AIDS.
7. Question and answer period.
8. Use the *HIV/AIDS Terminology Worksheet*.

This lesson was most recently edited December, 2009.

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## Materials Needed

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### Classroom Materials:

- SYRINGE (without a needle) and a CONDOM, if appropriate <sup>1</sup>

### Student Materials: (for each student)

- *HIV/AIDS Terminology Worksheet*

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<sup>1</sup> Many students in urban areas have seen IV needles and condoms in parks, on the street, on the playground. Seeing the teacher display them helps motivate discussion and clear up confusion.

## Activities

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### 1. Explain the lesson's purpose.

*The good news about HIV/AIDS is that even though we can't cure people of the infection after they catch it, we can prevent people from getting it in the first place. It is a very hard disease to catch, and people have to do some very specific things in order to get it.*

*It's important that you have good, factual information about HIV and AIDS. After today, you'll be able to tell facts from rumors and gossip. You'll be smart about HIV/AIDS, and most important, you'll know how to protect yourself and help your friends and families too.*

*HIV/AIDS is a fairly new disease. As far as we know, it's been around for less than fifty years. It was named in America in 1981. That's when doctors started noticing that patients had strange symptoms. They started to investigate. We don't know for certain when HIV started or where it came from.*

*I said we don't have a cure for people with HIV. Unfortunately, we don't have a vaccine either.*

- *Who can tell us what vaccines are? (shots to protect us)*
- *Good, you've all had some vaccines when you were young to protect you against certain illnesses. What are you protected against? (polio, measles, mumps)*

*Scientists around the world are working to make a vaccine against HIV, but they tell us that even if they're lucky enough to find one, it's going to be at least five or ten years until we can give it to people, because vaccines must go through long periods of testing to prove they work correctly.*

*That's why it's very important to listen carefully today. I want you to be safe. Today we will talk about what HIV/AIDS is: how you can get it and how you cannot. Afterwards, we'll have time for questions and discussion.*

### 2. Explain the characteristics of HIV and AIDS.

*AIDS is caused by a virus called HIV. HIV is a tiny germ that enters the body through the blood stream. The virus attacks the immune system, the system that normally fights off diseases. You might have noticed when you were sick with a bad cold or flu, that areas in your neck become swollen. These are some of your lymph nodes. Inside, white blood cells were working to fight off infection.*

*Viruses need to get inside our cells in order to live. When a person gets HIV, the virus invades a white blood cell, which is the leader and organizer of the immune system. Inside the white cell, the virus multiplies and multiplies until the white cell can't hold any more virus. It bursts open and releases more new virus into the bloodstream to travel around looking for more white cells to invade. Over time, there aren't enough white blood cells left to protect the body. The immune system can't work properly; it can't do its job of protecting the body against infection. Patients may have to be hospitalized because they can't fight off illnesses that a healthy body could fight easily. Instead they become sicker.*

Most people look and feel perfectly healthy when they first get HIV, and most don't even know it's in their body. We could not tell by looking at them if they were infected. The virus is inside their cells, and for the moment, their immune system continues to work fairly normally. Even though they seem completely healthy, they could still pass the disease on to other people during certain behaviors which we'll talk about in a moment. The virus will be in their body as long as they live. There is absolutely no way that they can get rid of it.

Over time (sometimes a very long time), a person with HIV will start becoming ill. There are lots of possible symptoms. These symptoms can be similar to those we have when we are sick with the flu, but they last much longer and are more severe. So people might have a fever that lasts for weeks or a cough or diarrhea. They may lose a lot of weight or they may have night sweats. (This is when a person wakes up, and even on a freezing cold night, their whole body is soaked with sweat and so are their sheets and blanket.) If a person has these kinds of symptoms for more than a couple of weeks, they would need to see a doctor. Only a blood test can tell if their symptoms are caused by HIV.

A person doesn't have AIDS until they get very sick from HIV. A person must have lost most\* of the white blood cells called "T-cells" or get a specific type of illness for a doctor to diagnose them with AIDS. Often there is a particular type of pneumonia or cancer. While there are new medications that have helped people live longer and longer with HIV, no one has been able to fully recover. HIV is still considered a terminal disease. That means that, eventually, the person will die.

\* The actual T-cell count has to have dropped below 200 cells per cubic milliliter of blood, but it isn't necessary that your 4-6<sup>th</sup> grade students know that much detail.

### 3. Describe how the disease is transmitted and who is vulnerable.

HIV is very hard to get. We can't get it the same way we do other illnesses like colds and flu.

What do you do if you have a friend with a bad cold, and they're sneezing and coughing around you? (That's right! You try to keep away from them.)

How do cold germs travel? (Good! Through the air. Cold viruses are airborne. Luckily for all of us, HIV does not travel through the air.)

How does it pass? (Right. HIV is bloodborne. It has to get inside a person's bloodstream.)

HIV can only be passed from one person to another when people exchange certain fluids in their body. There are only four fluids known to have a strong enough concentration of the virus to pass it from an infected person to another person. These fluids are blood, semen from a man, vaginal fluid from a woman, and breast milk. Semen and vaginal fluids are our sexual liquids.

These fluids can be passed only when people are doing very particular, very intimate behaviors. We're going to talk about two behaviors which pass the virus. These are called risk behaviors.

What do we mean when we talk about taking a risk? (Right. It means taking a chance. Sometimes people are very lucky when they take a chance, but other times they have no

luck at all. Nothing works out the way they planned. So during these risky behaviors people are taking a chance of getting HIV.)

The first risk behavior is shooting up with injection drugs. (Display syringe if you have one. \*) Injection drugs are drugs people inject (or shoot) into their bodies. When people shoot up drugs, they often do it with a few other people. When a person puts a drug into his/her vein with a needle, she/he also pulls some of their blood up into the syringe. That blood will be in the syringe as long as the needle is used, even if there's such a small amount you cannot see it. As it is passed from one person's body to the next person's body, each person can be putting infected blood directly into their own bloodstream.

**(When appropriate)** Many students (particularly in cities) have reported finding used drug needles lying around: sometimes at a park, or under bushes, or on the street. If you find any used needles, leave them alone and do not touch them at all. If there's an adult around, tell them about it. Do not handle them ever. Let an adult throw them away.

There are situations in which all of us see exactly the same type of needles. Where?

Yes. In hospitals, and doctors' and dentists' offices. If you need to get a shot from a doctor or nurse, or if you donate blood to help a friend, you will never have to worry about catching HIV. When a doctor or nurse uses a needle and syringe, it is always 100% sterile. There are absolutely no germs. The key is, the needle is used only one time to give your medicine, and then it's disposed of in a safe manner. People can only become ill when needles are shared. You already know that illegal drugs like marijuana, cocaine, and heroin are bad for people. They're bad for kids, for teenagers, for adults. You know that these drugs do terrible things to peoples' bodies and to their minds. Most people who shoot injection drugs probably never really planned to do it. Somehow, they got started, and then they couldn't stop - because they became addicted. What does it mean to have an addiction? (Discuss)

People who use alcohol or drugs are at greater risk to try injection drugs. They may start like this: Sometimes a person may be drinking alcohol or using another drug like marijuana at a party. Somebody in the room takes out a needle and asks if they want to shoot up. Since they are drunk or stoned, they can't think very clearly. They say "Sure," and they shoot up for the first time. That's why drugs are dangerous.

When we can't think clearly, we sometimes make choices that make us very unhappy later.

Who can remind us of the four fluids we mentioned that can pass the virus? (Good. Infected blood, infected breast milk, infected semen, and infected vaginal fluids.)

The last two are our sexual fluids. They can only be shared between two people when they are having sexual intercourse. \*\* If one person is infected with HIV, the other person can become infected during sex. Sex is especially risky because no one can tell by looking at

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\* Many students in urban areas have seen syringes and needles in parks, on the street, on the playground. Seeing the teacher display the needle can motivate discussion and clear up confusion.

\*\* In this 5<sup>th</sup>/6<sup>th</sup> grade lesson, we use the term "sexual intercourse" as an umbrella expression to represent all three risky sexual behaviors: oral, anal and vaginal intercourse. These will be spelled out in later grades. That's not to say that you can't define them simply if students ask about them. The curriculum, however, begins with this more basic information.

someone whether that person has the virus and because most people who have it don't realize they have it.

The only 100% safe way to protect yourself from HIV is not to use injection drugs at all ever and to practice sexual abstinence.

Does anyone know that abstinence is? (Yes. Abstinence means a decision to delay sex.)

Sexual intercourse, when two people are older and love each other very much, is an important part of most people's lives. It's a way to show strong affection, and it's also the way to make babies. It's very private and personal and special. Decisions about sex are very complicated.

They are really adult decisions. When young people try to make sexual decisions, things often don't go right. Sex is worth waiting for until you're an adult.

**(When appropriate:** Display condom. **)** Many students (particularly in cities) have reported finding used condoms lying around: sometimes at a park, or under bushes, or on the street. Condoms are something people may use, when they have sex, to cut down the chances of pregnancy or HIV (or other diseases). If you find any used condoms, leave them alone and do not touch them at all. If there's an adult around, tell them about it. Do not handle them ever. Let an adult throw them away.

Another way that the virus is passed is during pregnancy. If a woman is pregnant (and remember, she may not know she is infected), she can give the virus to the baby during the pregnancy or birth. Many babies are born with HIV around the world. Here in the U.S., we have medicine that can protect most of these babies, but in many places there isn't enough money to pay for these medicines. It's a very sad situation. If they don't get medical treatment, most of these babies don't live very long; they are too sick. Even with medicine, people born with HIV die much younger.

In past years, some people became infected during blood transfusions. (They needed other people's blood to keep them healthy.) Before 1985, there was no test to screen blood to make certain it was safe. Some people got the virus during their transfusion. Now, we do have a test to check all blood, so the chance of getting HIV from a transfusion is very, very small.

So, who can get HIV?

It's important to know that anyone who participates in a risky behavior can get HIV. The virus does not discriminate. It can infect males or females, babies, kids, teenagers, or adults. It can infect people from any racial or ethnic group. The virus does not depend on certain kinds of people; it depends on certain kinds of behaviors. It's not who you are but what you do.

#### 4. List ways in which the virus is not transmitted.

HIV is a hard disease to catch. It is passed mainly through risk behaviors.

- \* Many students in urban areas have seen condoms in parks, on the street, on the playground. Seeing the teacher display the needle can motivate discussion and clear up confusion.

*HIV is not an airborne virus like colds and flu.*

- *We can't get it through coughs and sneezes.*
- *We can't get it by touching things like doorknobs, or pencils or kickballs.*
- *You don't get HIV through any of the regular daily things you do: riding next to someone on a school bus, or shaking hands, or hugging.*
- *Not by using someone's comb or make-up or wearing their clothes.*
- *Not by sharing a can of pop or a pizza or playing sports.*
- *Not by slow dancing.*
- *Not from swimming pools or from mosquitoes.*

*There have been lots of studies done of people who live with and care for people with HIV and AIDS. Not one single person has ever gotten HIV from living in the same home or going to school with someone with HIV.*

*As time goes on, many people in this class may know someone with HIV or AIDS. Now you know that you won't have to be afraid; you don't have to keep away from the person. People with HIV/AIDS can still be friends, relatives, and neighbors - just like they've always been.*

**5. Reemphasize risk behaviors, by asking the class to tell you, again, how the virus is usually transmitted: sharing injection needles, having sex with someone who has the virus.**

**6. Write the acronym "AIDS" on the blackboard like so:**

A  
I  
D  
S

*Let's take a look at what the letters stand for?*

- o *Does anyone know what the A stands for?*  
ACQUIRED - AIDS is a disease a person gets by participating in a particular behavior. (Only babies whose mothers are infected can be born with it.)
- o *What does the I stand for?*  
IMMUNE – The virus attacks the person's immune system.
- o *What about the D?*  
DEFICIENCY – The white blood cells are too few or too weak, so the immune system can't protect the person against illness.
- o *What about the S?*  
SYNDROME – The cycle of the disease is from the time of infection...a group of symptoms.

**7. Respond to students' written and oral questions.**

If there are questions for which you don't know the answers, be honest about it. Then you (or a student) can call an expert to find out the answer. Call a toll-free HIV/AIDS Hotline: in Washington State (1-800-272-AIDS), or anywhere in the United States (1-800-CDC-INFO [800-232-4636], 1-888-232-6348 TTY, 24 Hours/Day or E-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov)).

If there are questions for which you can't think of a tasteful, sensitive answer, talk them over with a colleague.

For value-laden questions (as opposed to factual ones), see pages 7-11 and, especially, make sure you refer to parents or guardians and clergy:

*"... and since people have such differing beliefs about this, I would really recommend that you talk it over with your families. If you belong to a church, synagogue, mosque, or temple, find out what they believe, too."*

**8. Use the *HIV/AIDS Terminology Worksheet*.**

Allow students 5 minutes to fill it in, individually. With help from volunteers, review the answers aloud.

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### **HIVAIDS Terminology Worksheet Answer Key**

1. HIV
2. immune
3. white blood
4. blood semen vaginal fluids breast milk
5. shooting injection drugs sexual intercourse
6. healthy
7. prevented (it is also acceptable if someone answers "treated")
8. touching hugging shaking hands sharing food or dishes riding a bus together sharing pens and pencils
9. Acquired Immune Deficiency Syndrome
10. abstinence
11. pregnancy (or birth)



# HIV/AIDS Terminology Worksheet

NAME \_\_\_\_\_ DATE \_\_\_\_\_

DIRECTIONS: Fill in the blanks.

1. A virus called \_\_\_\_\_ causes AIDS.
2. HIV attacks the body's \_\_\_\_\_ system.
3. The virus invades \_\_\_\_\_ cells.
4. AIDS is transmitted through three body fluids: \_\_\_\_\_,  
\_\_\_\_\_, and \_\_\_\_\_.
5. Two risk behaviors are \_\_\_\_\_ and \_\_\_\_\_.
6. People who are infected with HIV, can still look and feel \_\_\_\_\_.
7. HIV can't be cured, but it can be \_\_\_\_\_.
8. Four casual (everyday) behaviors which do **not** pass the virus are:  
\_\_\_\_\_, \_\_\_\_\_,  
\_\_\_\_\_, \_\_\_\_\_.
9. AIDS stands for \_\_\_\_\_  
\_\_\_\_\_.
10. When a person decides not to have sexual intercourse, that is called  
\_\_\_\_\_.
11. Most children who have HIV, got the virus during \_\_\_\_\_.

