HIV/AIDS: Basic Facts

Grade 7, Lesson #21

Time Needed

One 50-minute class period

Student Learning Objectives

To be able to …

1. Describe how the human immunodeficiency virus (HIV) affects the immune system.
2. Name the four body fluids that transmit HIV.
3. Cite the three most common ways that HIV is transmitted.
4. Define abstinence.
5. Understand the role of condoms in the prevention of sexually transmitted diseases (STDs).

Agenda

1. Set the stage. (3 minutes)
2. Present *HIV Lifeline* and use student worksheet to clarify basic HIV and AIDS information. (30 minutes)
3. If appropriate for your school district and your particular students, discuss correct condom use with your class.
4. Use the *Onion Ball Question and Answer Game* to reinforce the concepts. (15 minutes)
5. Close the lesson. (2 minutes)

Materials Needed

Student materials:

- *Worksheet: HIV Lifeline, Parts 1-3* (1 copy per student)

Classroom materials, equipment:

- *Transparencies: HIV Lifeline, Parts 1-3* (identical to HIV Lifeline worksheets) *****
- Overhead projector
- Various colors of tissue paper
- Scotch tape
- Pair of scissors
- Questions from *Onion Ball Question Sheet* cut into strips

***** Alternately, *FLASH* transparencies are available as PowerPoint files on the *FLASH* web site: www.kingcounty.gov/flash

Resources

Background Reading:

- HIV/AIDS: Background Information for Educators
  http://www.cdc.gov/hiv/topics/basic/
- How to answer difficult questions: Answering Difficult Questions
  http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/diffques.aspx
- How to answer questions about controversial issues: Values Question Protocol – See page 10 of this binder or go to:
  http://www.kingcounty.gov/healthservices/health/personal/famplan/educators/values.aspx

Websites:

- Resources for Health Educators
  http://www.kingcounty.gov/healthservices/health/communicable/hiv/educators.aspx
  (Public Health – Seattle & King County [PHSKC])
- HIV/AIDS Program www.kingcounty.gov/health/hiv (PHSKC)
- Family Planning Program www.kingcounty.gov/health/famplan (PHSKC)

Phone Numbers:

- HIV/STD Program: 206-296-4649 (PHSKC) M-F 8-5pm
- HIV/STD Hotline: 800-272-2437 (Washington State Department of Health)
- HIV/STD Hotline: 800-CDC-INFO (Centers for Disease Control & Prevention)
- Facts of Life Line: 206-328-7711 or 888-307-9275 (Planned Parenthood of the Great Northwest)
- Your local Public Health Department

Preparation

- Find out where people can get HIV tests in your local area (to fill in the blank on page 21-13).
- Make one Onion Ball per class:
  1. Cut out the questions from the *Onion Ball Question Sheet.*
  2. Take tissue paper and form a small ball.
  3. Tape the last question to be answered on to the tissue paper ball.
  4. Take a different colored tissue paper, wrap it around the ball, and tape it together.
  5. Tape the second to last question on the tissue paper. Continue this process until all of the questions have been taped to the ball, with question number one on the outside of the ball.
  6. The final product should be an "onion" with alternating layers of tissue paper and questions.

Activities

Note: The teacher's script is indicated by italics. This script is meant to be a guide for teachers who might find it helpful.

1. Set the stage. (3 minutes)

So far, in this unit, we've talked about ____ [whatever you have done in the last week or so]. *Today and tomorrow, we'll be talking about HIV and AIDS.*

Some of you probably remember a lot from previous years' classes. [Ask for a show of hands.] *Who has had HIV/AIDS lessons before? Some of you have read a lot on the subject, or seen TV specials, or you've learned a lot from family members about HIV and AIDS. I hope you will share some of what you know today.*

But just because you may already know some things about the disease, doesn't mean this class will be boring or that you won't still learn some new things. I guarantee that you will. This class will be useful for everybody, regardless of whether you are male or female, gay or straight. It will be helpful even if you haven't had a boyfriend or girlfriend yet, even if you don't plan to have sex until you are much, much older.

Most people will need to know about HIV eventually. Maybe your best friend will have a family member with AIDS. Maybe someone at school will be infected. And besides, if you are well informed, you can act as health teachers for your friends, when they may have wrong information or unnecessary fears.

3. Present HIV Lifeline and use student worksheet to clarify basic AIDS information. (30 minutes)

Show the *HIV Lifeline Transparencies, Parts 1-3*. Pass out *HIV Lifeline Worksheets, Parts 1-3,* and ask students to write on their worksheets as you write on the transparencies.

Box #1:

Does anyone know what the letters H I V stand for?

Write on the transparency: Human Immunodeficiency Virus.

- ***Human*** *refers to people not to animals or insects. Only people can have HIV.*
- ***Immunodeficiency*** *is the words "immune" and "deficiency" smashed together into a compound word.*
  - *Your immune system is made up of the parts of the body that fight infections*
  - *A deficiency is not enough of something.*
  - *So* ***immunodeficiency*** *is not enough ability to fight infection.*
- *A* ***virus*** *is a very small kind of a germ.*

Box #2

There are two important parts of the immune system that you need to understand to make sense of HIV.

Write on transparency: T-cell and Antibody.

- *A **T-cell** is a specific kind of a white blood cell that is the boss or "conductor" of the immune system. HIV attacks and kills T-cells. They are called T-cells because they mature in the thymus gland, which is between your lungs.*
- *An **antibody** is one of the fighters of the immune system. HIV antibodies try to kill off HIV. They do kill some. They never kill them all. Antibodies are made by B-cells (made in bone marrow), which are told what to do by T-cells. When too many T-cells die, there is no "boss" to tell the B-cells what to do.*

Box #3

What four body fluids can transmit HIV?

Write on transparency: Transmit, Blood, Semen, Vaginal Fluids, Breast Milk

- *To **transmit** a germ is to pass or carry it from one person to another.*
- ***Semen** is the fluid that carries sperm.*
- ***Vaginal fluid** is the wetness in a woman's vagina.*

Box #4

*Tell me the body fluids from which people **don't** catch HIV?*

Write on transparency: Spit/Saliva, Pee/Urine, Sweat, Tears.

- If the saliva or urine were bloody, HIV might be transmitted.

Show the transparency, *HIV Lifeline, Part 2*.

Box #5

This is Student X. He has HIV. How might he have gotten infected? What are the three most common ways that people get infected with HIV?

If students respond with less likely or impossible means of transmission, clarify which are unlikely and which are impossible. Focus on the 3 most common means of transmission.

Write on the transparency: Had sex without a condom, Shared needle, and Got from Mom (during pregnancy, birth, or while breastfeeding).

Student X is 14 years old and in the 9th grade. Most students in middle school and junior high are not having sex, but Student X is. He actually got infected ***1 week ago*** *by having sex without a condom with someone who has HIV.*

Imagine that this is Student X's lifeline across your worksheet page. He gets older as we move through the numbered drawings. Remember, the way HIV affects a person's body is very different if they have the right medicine vs. having no medicine at all.

This [Box 5] *is the day that Student X got infected. From this day forward Student X has HIV and could transmit it.*

Box #6

Student X could find out that he has HIV if he knew to get tested. The standard HIV test looks not for the virus itself but for antibodies to it. Remember, antibodies are a part of your immune system; they fight off germs. But Student X got infected only a week ago, so he wouldn't have enough antibodies built up yet to show on a test. It will take 4-12 weeks for him to build up enough antibodies to show up on a test. After three months, an HIV test would tell him for sure that he is infected If he hadn't gotten infected, it would tell him that, too. (97% of people tested have antibodies by three months; in rare cases, it takes up to 6 months).[1]

(If students ask: People at high risk – men who have sex with me, for example – can be tested in some clinics [Harborview, in Seattle, for instance] just 9 to 11 days after exposure using a more expensive RNA test that looks for virus, rather than antibodies.[2] The more common test is an antibody test, 3 months post-exposure.)

But Student X feels fine, so it doesn't occur to him to ***get*** *tested. About one in five people with HIV don't yet know they are infected.*[3]

Just because he doesn't have symptoms, of course, doesn't mean he can't spread the disease. He has HIV and he can give it to others if he shares a needle with them or has unprotected sex with them. In fact, because Student X has only recently been infected, and because he doesn't yet have many antibodies to fight the infection, he is even more infectious than he will be later on and more of a risk to people he might have sex with or share a needle with.

Write on transparency: 3 months and Antibodies.

Box #7

Then, probably for years, Student X will NOT have any symptoms that show he is infected with HIV. He'll feel fine and healthy, and he will keep going to work or school. This is called being "asymptomatic." It doesn't mean the HIV has gone away. It hasn't. It is gradually multiplying in his body, killing off T-cells as it multiplies. Remember T-cells are a kind of white blood cell. They direct the immune system by telling B-cells to make antibodies to fight germs, including HIV.

But Student X feels fine because he had so many T-cells to begin with that he was able to keep fighting off other germs even as the HIV began to kill off his T-cells.

The average person with HIV is in this asymptomatic phase where he or she feels perfectly healthy for about 8 to 11 years. But that's just an average. It could be just a couple of years. It could be up to 15 years even without treatment.[4] But we'll come back to that.

Write on the transparency: 8-11, Symptoms, and Asymptomatic.

Box #8

It has been ten years, so Student X is now 24. He never got tested. If he had, he would have been advised to begin HIV medication[5] before his immune system was so depleted. He didn't know to start taking medicine, so his HIV is starting to win the fight against his immune system. HIV has killed off enough of his T-cells that his immune system is seriously weak. Student X suffers often from nausea and diarrhea. He is so tired that many days he can't get out of bed. The doctor tells him that he now has AIDS, the last stage of HIV infection.

Student X happened to get nauseous and tired. People with HIV and not on medication get lots of different infections and conditions that they just can't fight off very well: certain ***life-threatening*** *cancers, pneumonias, and other things that people with healthy immune systems almost never get. If Student X gets one of a long list of specific diseases and conditions, or if the number of T-cells in his blood drops so low that it is clear he will get sick soon (below 200 cells per milliliter of blood), then his HIV-infection is called "AIDS."*

Write on the transparency: 24 and AIDS

Box #9

Does anyone know what the letters A I D S stand for?

Write on the transparency: Acquired Immune Deficiency Syndrome

- ***To acquire*** *is to get or catch. HIV is something that you can only get from someone who has the infection. It's not in your genes.*
- ***Immune*** *refers to your immune system (the parts of the body that fight infections.)*
- ***Deficiency*** *is not enough of something.*
- ***A syndrome*** *is a collection of* <u>*symptoms*</u> *(what people feel) and* <u>*signs*</u> *(what can be seen or measured – like a temperature).*

So AIDS is the last stage of HIV infection when HIV (a virus that you get from other people) has destroyed so much of your immune system that your immune system doesn't have the ability to fight infections, and you start to have a variety of signs and symptoms and dangerous diseases.

Box #10

Now Student X has AIDS. He goes in and out of the hospital multiple times. First, he gets pneumonia and goes into the hospital while the doctors treat the pneumonia. Then when he is over the pneumonia, he goes home. Then a few months later, he gets a serious eye infection and goes back into the hospital. Then he gets better again. And so on.

Finally, if he has no medication (didn't realize he was infected at first or chose not to find out, or didn't get monitored, or the care was too expensive, or maybe he can't remember to take pills, etc.) he will probably die from something his body can no longer fight off. Years ago, the average person diagnosed as having AIDS, lived another two years or so. But that was just an average. Student X might have lived longer. He might have died sooner. As far as we know, almost everybody with HIV and not on medication will eventually get sick enough that we consider them to have AIDS and die from something their body can no longer fight off. Nowadays, it is ***more*** *common for a person with HIV to live a long time. Because the HIV medications work so well, they are allowing persons with HIV to live longer and die of non-HIV related causes.*[6] *However, this does not mean it is an easy disease to live with.*

Write on the transparency: 2.

Show the transparency, *HIV Lifeline, Part 3.*

Box #11

Okay, that was a lifeline of someone who had HIV and did not tested or treated. 90% of the HIV/AIDS cases in the world are in developing countries where quality treatment is not easily available or in parts of the United States where people can't afford treatment.

Let's talk about how treatment affects the life of someone with HIV. As we said earlier, on average a person with HIV would be in the asymptomatic phase—where she feels healthy and does not have any symptoms—for about 8 to 11 years. If Student X is taking effective HIV treatment, he might stay healthier for much longer. We're not sure how long because the medicines are relatively new. The pills don't seem to help everyone, but they help the great majority of people. Largely because of these treatments, more people with HIV are living longer.

Write on the transparency: Longer

Box #12

If Student X started taking effective treatment, his life would be very different. He would now have to take at least one pill with three medicines in it every day. Some people, especially those who've been treated for a long time, may need to take a lot of pills everyday -- up to 10 or more, often twice a day. If he skipped any, or took them at the wrong times, they might not work.

Sometimes the pills cause side effects, so even though HIV is being mostly controlled by the medicines, the pills may cause nausea, diarrhea, or even diabetes or heart disease.

And the pills don't seem to help everyone. Some people take them and yet HIV continues to multiply and cause damage in their body. This happens most often if the HIV develops resistance to the medicines being used. HIV resistant to anti-retroviral treatments can occur if the treatment recommendations are not being strictly adhered to, for example if persons miss doses or take them irregularly.

The pills also cost a lot of money. If Student X has insurance, his insurance might pay for all or most of the cost of the pills. If he doesn't have insurance, in Washington State, the government provides HIV treatment for people who cannot afford it. But not all states do this.

Write on the transparency: Medicines (pills) can have side effects; Pills don't work for everyone; and Pills cost a lot of money.

Box #13

Let's rewind and go back to the day that Student X got infected. We want to keep Student X safe.

Write on the transparency: Safe.

Box #14

Student X got infected by having unprotected sex with a person who had HIV. What could Student X have done differently to protect himself from HIV?

He could have chosen to not have sex. Another word for that is abstinence. "Abstinence" is a fancy word for choosing not to do something. People sometimes decide to abstain from all kinds of things: chocolate, cigarettes, sex, TV, meat and so forth. When people decide to abstain from something, it may be a temporary or long-term decision. So sexual abstinence means choosing not to have sex.

Write on the transparency: Abstinence.

Student X also could have chosen to practice monogamy. Monogamy is when two people have sex ONLY with each other. If both people have been tested and know that they are not infected with HIV (and have no risky encounters that might have resulted in infection since their last test), and if both people are faithful and do not cheat on their partner, then monogamy provides protection against HIV infection.

Write on the transparency: Monogamy.

Student X also could have used condoms to protect himself from HIV. Condoms greatly reduce the risk of HIV infection. They also protect against unwanted pregnancy and other sexually transmitted diseases. Condoms are very effective when used correctly and every time (consistently) [Condoms, consistently and correctly = 3 Cs].

Write on the transparency: Condoms, consistently, correctly = 3 Cs.

3. If appropriate for your school district and your particular students, discuss correct condom use with your class.

For simple instructions for correct condom use, you can type the search phrase "how to use a condom" at one of these teen web sites:

- www.SexEtc.org
- www.TeenWire.org
- www.AdvocatesForYouth.org

If you don't teach about correct condom use, tell students how they *could* learn more about this topic:

- talking with their doctor
- calling a hotline:
  - HIV/STD Hotline: 800-272-2437 (Washington State Department of Health)
  - HIV/STD Hotline: 800-CDC-INFO (Centers for Disease Control & Prevention)
  - Facts of Life Line: 206-328-7711 or 888-307-9275 (Planned Parenthood of the Great Northwest)
- contacting their local Public Health Department
- searching "how to use a condom" at one of the web sites above

4. Use the *Onion Ball Question and Answer Game* to reinforce the concepts. (15 minutes)

Okay, now we are going to play a game to see how much we all remember about HIV.

Have students move the desks back or otherwise make space for the group to stand or sit in a large circle.

This ball has a series of questions on it. I'm going to toss—not throw, but toss—the ball to someone. There is a question on the outside of the ball. Read the question out loud. Choose to answer the question yourself or ask for a volunteer to answer the question. Then call on a person with his or her hand raised. Once the question has been answered, the person will toss the ball to someone else. This new person will remove the top layer of tissue to find the next question and so on. Any questions on how this is going to work?

Toss the ball to the first student. Appropriate answers to each question are listed below.

A. What is the job of the immune system?

- The immune system helps the body fight off infections and other diseases. It helps keep a person healthy.

B. What is HIV?

- **Human Immunodeficiency Virus (HIV)** is the virus that causes AIDS. It attacks the body's immune system.

- Over time, HIV gradually destroys the body's ability to fight off infection and disease. Then people are more likely to get infections and cancers that would not normally develop in healthy people.

C. What is AIDS?

- **Acquired Immune Deficiency Syndrome (AIDS)** is the last stage of HIV infection, when a person's immune system doesn't work very well anymore.

D. What happens to a person who has HIV?

- If a person gets infected with HIV, generally he or she will still live for many years even without starting treatment, (unless he gets hit by a car or she dies for some other reason like a heart attack) but people with HIV need to have their health monitored and to start treatment before their immune system is severely weakened.
- Soon after he gets infected, his body's immune system will start to fight HIV.
- His immune system will make antibodies to try to fight the virus (which become detectable in blood tests usually within 1-3 months), but the antibodies won't be able to kill all HIV. (Antibodies are special cells in the blood that fight infection.)
- Then, probably for years (on average 8-11 years, but usually a lot longer with treatment), she will NOT have any symptoms showing that she's infected. She'll feel fine and healthy and will keep going to work or school. This is called being "asymptomatic." During that time, a person with HIV can still transmit the virus to other people even though he feels fine.
- Finally, without effective treatment HIV will eventually damage his immune system so that it is seriously weak. At this point, he may start to get other infections and conditions that he just can't fight off very well. The doctor may say that his HIV infection is now called "AIDS".
- Finally, she may die from some condition her body can no longer fight off. The average person, once he gets diagnosed as having AIDS, lives another two-three years or so without effective treatment. With treatment, most people with HIV can live much longer, perhaps as long as non-infected persons. But once treatment for HIV begins it will need to be strictly adhered to for the rest of the person's life.

E. What are four fluids known to transmit the virus?

- Blood
- Semen
- Vaginal fluids
- Breast milk

F. What are the two most common ways that HIV transmission occurs?

1. Unprotected sex with an infected partner. [Note: Some 7th graders will think that "sex" means vaginal intercourse only. Gay and lesbian 7th graders may also think you are speaking only to their heterosexual classmates. If you think it's appropriate for your learners, share with them the age-appropriate definitions of oral, anal and vaginal intercourse in Lesson #23, page 23-8 of this binder…or at

www.kingcounty.gov/health/flash. Make sure if you do define all three types of intercourse to note that all three can transmit HIV.]

2. Sharing needles to use drugs.

G. What are other ways that HIV transmission occurs?

- If a woman is infected with HIV, she can give it to her baby during pregnancy or birth, or by breastfeeding. However, except for moms who have HIV, breastfeeding is the healthiest way to feed a baby.
- Doctors, nurses, or other health care workers can be infected with HIV if they get stuck by an HIV-contaminated needle or get HIV-infected blood in their eyes or in cuts.
- It is very rare for a patient to get infected with HIV from receiving HIV-infected blood during an operation or receiving an organ from a person infected with HIV. This was a bigger problem before the U.S. began testing the blood and organ supply in 1985. It is still a problem in countries that cannot afford to test their blood and organ supply. This is important to know if you travel to one of these countries.
- It is theoretically possible to get HIV from sharing needles for tattoos or piercings. There are no known cases of these two modes of transmission; however, hepatitis B and C *have* been transmitted those ways. People should never share needles - period. It is safest to have piercing and tattooing done by a professional who follows proper equipment cleaning procedures.
- Steroids, like mind-altering drugs, are sometimes taken through needles. Sharing needles could transmit HIV and other viruses.

H. What are some ways that HIV is not transmitted?

- Donating blood
- Hugging
- Being bitten by a mosquito
- Sitting on a toilet seat
- Sneezing
- Shaking hands
- Sharing eating utensils, food, or objects handled by people with HIV
- Spending time in the same house, school, or public place with a person with HIV

I. Can kissing transmit HIV?

- In the twenty-plus years of the HIV/AIDS epidemic, there has only been one case of HIV transmission thought to be from kissing. Both people in this case had **lots** of bleeding from their gums and other sores in their mouths. [7]
- You do not need to worry about getting HIV from kissing.

J. What is the only 100% safe way to protect oneself?

- Abstinence from injection drugs and all forms of sexual behavior

K. What is abstinence?

- "Abstinence" is a fancy word for choosing not to do something.
- People can decide to abstain from all kinds of things: chocolate, cigarettes, sex, TV, meat and so forth.

- When people decide to abstain from something, it may be a temporary or long-term decision.

L. TV and movies make sex and drugs look so good, why would anyone ever abstain?

- People and their families have many different beliefs about abstaining from sex; some of these are religious beliefs.
- For example, some people believe that no matter how old they are, it is best to abstain from sex unless they are married, or until they are able to support a baby, or until they have both been tested for HIV and other STDs.
- Some people abstain so they can focus on schoolwork and other activities.
- Some abstain to decrease the chance of getting their heart broken.
- Some teens don't want to disappoint their parents.
- People also abstain from injection drugs for all kinds of reasons. They may want to avoid hepatitis, HIV, addiction, or getting arrested. They may want to avoid getting high and making sexual decisions they will regret later.

M. How can people find out if they are infected with HIV?

- They can get a blood test – or, in some places, an oral test where they swab their mouth -- that checks for antibodies to HIV.
- Almost everybody with HIV has enough antibodies to show up on a test within three months from the time he or she got infected.
- Most people who are infected feel fine for years, so they don't think of getting tested. Some doctors won't do the test unless the patient specifically asks. However, more and more doctors are now making HIV tests a part of a regular office visit, as recommended by the CDC.[8] So if you doctor asks you to take an HIV test, it does not mean your doctor assumes you have it. He or she is simply following guidelines for good health.
- Generally, people of any age can get tested confidentially at Public Health Department clinics, Planned Parenthood clinics, doctors' offices, and teen clinics. Around here people can get tested at _____. [Fill in the blank if you know specifics.]

N. Most people have sex some time in their lives. What should they know in order to protect themselves?

- Condoms greatly reduce the risk of pregnancy as well as HIV and other STDs. Condoms are very effective when used correctly every time people have sex that involves a penis.[9,10,11]
- Many birth control methods are very effective at preventing pregnancy, but only condoms and abstinence protect against HIV and other STDs. Some people use condoms with another birth control method to protect themselves against pregnancy AND disease.
- Dental dams are rectangular pieces of latex used to protect both partners when oral sex is performed on the genitals or anus.

- The fewer partners a person has in their life and the longer they delay beginning to have sex, the lower their risk of getting or giving HIV or other STDs.[12]
- It is safest to practice monogamy with an uninfected partner. Monogamy is when two people have sex ONLY with each other. Before beginning a new monogamous relationship, if either person has taken risks in the past, they should get tested to be sure they are not already infected. Remember, a person who says he or she is monogamous is not the same as that person *being monogamous*. Be sure you can trust your partner.

4. Close the lesson. (2 minutes)

If you remember one thing from today, I hope you remember that HIV is preventable. Tomorrow, we'll focus on the role of alcohol and other drugs in HIV transmission.

Onion Ball Questions

A. What is the job of the immune system?

B. What is HIV?

C. What is AIDS?

D. What happens to a person who has HIV?

E. What are the four fluids known to transmit the virus?

F. What are the two most common ways that HIV transmission occurs?

G. What are other ways that HIV transmission occurs?

H. What are some ways that HIV is not transmitted?

I. Can kissing transmit HIV?

J. What is the only 100% safe way to protect oneself?

K. What is abstinence?

L. TV and movies make sex and drugs look so good, why would anyone ever abstain?

M. How can people find out if they are infected with HIV?

N. Most people have sex some time in their lives. What should they know in order to protect themselves?

Name: _____ **Date:** _____ **Class Period:** _____

HIV Lifeline (Part 1)

#1

What does HIV stand for?

H_____

I _____

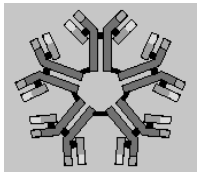
V_____

#2

Two key parts of the immune system:

A _____ is a kind of white blood cell, the boss of the immune system, which HIV attacks.

An _____ is one of the fighters of the immune system.



#3

Four fluids can _____ HIV:

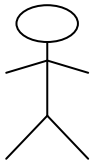
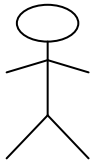
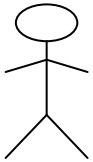
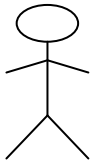
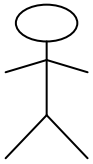
1. _____
2. _____
3. _____
4. _____

#4

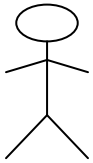
Which fluids are safe?

1. _____
2. _____
3. _____
4. _____

HIV Lifeline (Part 2)

#5 This is Student X.  He has HIV. How could Student X have caught it? 1. _____ 2. _____ 3. _____	**#6** Student X could find out if he has HIV.  After _____ months there would be enough _____ to show on a test, but ...	**#7** Student X feels fine for years (an average of _____ years).  He has no _____. He is _____ So he doesn't think to get tested.
#8 Ten years later, Student X is _____ years old.  His immune system is losing the fight. Student X has _____.	**#9** A _____ I _____ D _____ S _____	**#10** Without medicine, Student X is in the hospital on and off (an average of _____ years).  Then Student X dies (if he takes no medicine).

HIV Lifeline (Part 3)

#11 Treatment helps people live _____.	**#12** Problems with treatment: 1. _____ 2. _____ 3. _____
#13 Rewind.  Let's keep Student X _____.	**#14** How? 1. No sex = _____ 2. Have only one uninfected partner who only has sex with him = _____ 3. Use protection = _____ _____

Answer Key: HIV Lifeline (Part 1)

#1

What does HIV stand for?

H**uman**

I **mmunodeficiency**

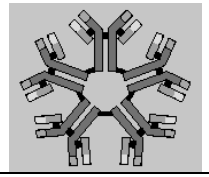
V**irus**

#2

Two key parts of the immune system:

A **T-Cell** is a kind of white blood cell, the boss of the immune system, which HIV attacks.

An **Antibody** is one of the fighters of the immune system.



#3

Four fluids can **transmit** HIV:

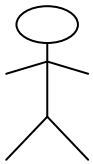
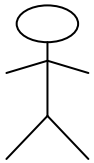
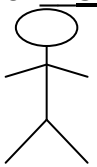
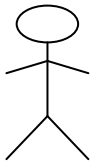
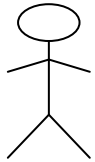
1. **Blood**
2. **Semen**
3. **Vaginal fluids**
4. **Breast milk**

#4

Which fluids are safe?

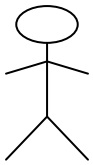
1. **Spit/saliva**
2. **Pee/urine**
3. **Sweat**
4. **Tears**

Answer Key: HIV Lifeline (Part 2)

#5 This is Student X.  He has HIV. How could Student X have caught it? 1. **Sex without a condom** 2. **Shared needle** 3. **Got it from mom**	**#6** Student X could find out if he has HIV.  After **3** months there would be enough **antibodies** to show on a test, but ...	**#7** Student X feels fine for years (an average of **8-11** years).  He has no **symptoms**. He is **asymptomatic** So he doesn't think to get tested.
#8 Ten years later, Student X is **24** years old.  His immune system is losing the fight. Student X has **AIDS**.	**#9** A **cquired** I **immune** D **eficiency** S **yndrome**	**#10** Without medicine, Student X is in the hospital on and off (an average of **2** years).  Then Student X dies (if he takes no

		medicine).

Answer Key: HIV Lifeline (Part 3)

#11 Treatment helps people live **_____longer_____.**	**#12** Problems with treatment: 1. **Medication (pills) can have side effects** 2. **Pills don't work for everyone_____** 3. **Pills cost a lot of money_____**
#13 Rewind.  Let's keep Student X **_____safe_____.**	**#14** How? 1. No sex = **_abstinence_____** 2. Have only one uninfected partner who only has sex with him = **monogamy_____** 3. Use protection = **Condoms, consistently, correctly = 3 Cs.**

References:

[1] Ibid.

[2] Centers for Disease Control and Prevention (CDC). (2009) *National HIV and STD Testing Resources,* Retrieved August 18, 2009, from the CDC Web site: http://www.hivtest.org/faq.cfm#exposure.

[3] Fenton, K. (2009) *A Simple, Life-Saving Test: Statement by Dr. Kevin Fenton for National HIV Testing Day 2009.* Retrieved August 18, 2009 from CDC Web site: http://www.cdc.gov/NCHHSTP/newsroom/NHTDStatement062609.htm.

[4] Chaffey, M.H., Klein, J.S., Gamsu, G., Blanc, P., Golden, J.A. (1990) Radiographic distribution of Pneumocystis carinii pneumonia in patients with AIDS treated with prophylactic inhaled pentamidine. *Radiology*. 175(3):715-719.

[5] The standard HIV treatment regimen now is a single pill once a day containing 3 different medicines, called "Anti-Retroviral Therapy" or ART. But your 7th graders don't need that much detail.

[6] Peiperl, L. *What is the Average Life Expectancy of Someone with HIV?* Retrieved August 18, 2009 from University of California, San Francisco. HIV Insite Web site: http://hivinsite.ucsf.edu/insite?page=ask-06-02-07. Accessed: August 18, 2009.

[7] CDC Website. (2006).*Can I get HIV from kissing?* Retrieved August 20, 2009 from HIV/AIDS Questions and Answers http://www.cdc.gov/hiv/resources/qa/qa17.htm

[8] CDC Website. MMWR: *Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health-Care Settings*. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5514a1.htm Accessed: August 19, 2009.

[9] CDC. *Male Latex Condoms and Sexually Transmitted Diseases*. Atlanta: US Department of Health and Human Services, CDC; January 2003.

[10] Crosby RA, DiClemente RJ, Wingood GM, et al. Condom failure among adolescents: implications for STD prevention. *Journal of Adolescent Health*. 2005; 36:534-536.

[11] Other barriers called "dental dams" can reduce risk from oral sex (mouth to anus or mouth to vagina). Dental dams are rectangular pieces of latex. People sometimes cut up male condoms or use plastic wrap to create barriers for oral sex. This is more detail than you need to introduce at 7th grade, but you should know in case students raise the issue.

[12] CDC. Panel Presentations on National HIV and STD Strategies for Youth. Available at: http://www.cdc.gov/hiv/resources/reports/PSP/CHAC_meeting/youth.html. Accessed August 20, 2009.