

AIDS

INTRODUCTION

The Acquired Immune Deficiency Syndrome (AIDS) is now one of the top ten causes of death in the United States. To this date, more Americans have been killed by this deadly virus than all the U.S. soldiers lost in the Viet Nam War and the numbers are greatly increasing every year. This disease is spreading in epidemic proportions. It strikes all races and is no respecter of wealth or position. It won't be long before everyone will know of someone who has been killed by this disease. This disease poses a very real health risk to all Americans if they are not careful. AIDS itself is the terminal (last) stage of the Human Immunodeficiency Virus (HIV) infection. This virus is carried directly from person to person by certain types of behavior. AIDS is 100 percent preventable if certain behaviors are stopped. (FBP, 1991).

In this booklet, we will learn about how the AIDS virus is spread, how it acts on the body, and how you can keep from getting this deadly disease. Knowing what is in this booklet may save your life, as such, this may be one of the most important booklets you will ever read.

Study Questions

1. **What do the initials AIDS stand for?**
2. **What do the initials HIV stand for?**
3. **AIDS is the _____ stage of the HIV infection.**
4. **AIDS is _____ preventable?**

HISTORY

No one knows for sure where or how the AIDS disease started. We believe it began in Africa where a large percentage of people in certain villages became infected. There are several different ideas about where the AIDS disease came from (FBP, 1991).

The most well-known and likely theory is that the disease started in the "African Green Monkey," found in Africa. There is a similar virus to AIDS that can be found in these monkeys. African natives often ate these monkeys for food. During the butchering process, it is thought that AIDS infected blood from one of these diseased monkey's entered humans through accidental knife cuts (FBP, 1991).

AIDS was first discovered as a disease by the Centers for Disease Control, in June 1981. After more was learned about AIDS, past medical records were studied. Fifty-seven cases were looked at, and the diagnoses were changed to AIDS before 1981. There were four cases of AIDS discovered in 1978, nine cases in 1979, and forty-four cases in 1980 (Slaff & Brubaker 25).

It is supposed that the AIDS virus made its way to the western hemisphere from Africa in the 1970's. After AIDS was defined by the Center for Disease Control in 1981, it was discovered that the first known case of AIDS was found in Haiti. AIDS cases in Haiti were found in much greater numbers by 1980. Thirty percent of the AIDS cases were female. One-third of the Haitian men

who had AIDS were either bi-sexual or served as homosexual prostitutes for tourists (Slaff & Brubaker 112-113).

There are several theories as to how the virus finally reached the United States. AIDS was discovered in both America and Haiti at about the same time. This suggests the possibility that visiting American gay (homosexual) men were infected with the virus in Haiti and brought it back to the United States. Haiti is a favorite vacation spot for wealthy Americans. Through sexual contact with Haitian prostitutes, some Americans may have become infected and brought the AIDS virus back to America (Slaff & Brubaker 113).

Another theory states that it was possible that Haitian immigrants brought the virus with them to American cities. It is suggested by Dr. Peter Piot, of the Institute of Tropical Medicine, in Belgium, that several thousand Haitians lived in Kinshasa, Zaire and then moved to North America and Europe in the 1960's and 1970's. Kinshasa, Zaire, is located in Central Africa; exactly where it is thought that AIDS first originated (came from) (Slaff & Brubaker 113-114).

Study Questions

- 1. The most accepted theory for the origin of AIDS is that a closely related disease exists in the _____ found in Africa.**
- 2. AIDS was first identified as a disease in _____, by the Center for Disease Control.**
- 3. The AIDS virus was thought to first come to North America _____ when American tourists became infected by having sexual contact with _____.**

AIDS AND THE PROBLEMS IT CAUSES

AIDS has now become one of the top ten causes of death in the U.S. It was projected that by the end of 1991, there would be about 270,000 AIDS cases in the U.S., and that 179,000 people could potentially die. As of 1987, there were about 130,000 known AIDS cases and that is about 75,000 more than all the U.S. soldiers who died in The Vietnam War (FBP, 1991).

There are other facts about AIDS which are even more shocking. As of 1985, there were at least one million Americans infected with the AIDS virus. By 1991, that number will probably triple. The average life expectancy of an AIDS patient after he or she is diagnosed as being infected with this deadly virus is only 18 months. No individual diagnosed as having AIDS before 1981 is alive today. As if that is not scary enough, the most dangerous trait of AIDS is that it is symptomless (it doesn't show any signs) until it is too late. More than 90% of Americans who are now infected with the AIDS virus are don't know that they have the disease. Slaff & Brubaker 145, 132, 247).

As mention before, AIDS arrived on American shores in the late 1970's. No one knew that it was here, because it takes on many forms. The AIDS virus is so small that if you were to stack 100,000 of them together, you still could not see them, even with a regular microscope. Despite its tiny size, this virus is one of the most deadly germs ever to infect humans (Slaff & Brubaker 10).

Once outside the body, the AIDS virus is very fragile (weak) and is not able to live any longer than a few hours. Inside the body, it is a tiny killing machine of almost unbelievable durability and

strength. It has the ability to disguise (hide) and mutate (change) itself within the human body's cell structure. Once inside a human body, the AIDS virus cannot be killed by any known medical means. AIDS is a disease which destroys the body's ability to protect itself against disease and infection. The AIDS virus attacks and kills those cells that are the body's defense against invading disease organisms. These cells are part of the human body's immune system, and attack and kill off invading diseases. They are called T-Helper Cells. The special work of these cells is to turn on the body's defenses to fight disease. Without these disease fighting cells, our body cannot defend itself against attacks from outside bacteria and viruses. Our bodies are constantly fighting against outside disease-causing germs like pneumonia (acute inflammation of the lungs), measles and many other diseases too numerous to name here. If the T-Cells are knocked out by the AIDS virus, there is no defense against invading diseases. This means that any one of a large number of diseases which the body can usually fight off can end up killing an infected person. (Slaff & Brubaker 42, 13).

The process of the T-Helper cells fighting off disease is called our "Immune System." If our immune system is weakened by the destruction of the T-Helper cells, these invading diseases can then take the opportunity to develop and kill us (Slaff & Brubaker 18).

If you test positive for the human immunodeficiency virus (also called being HIV positive), then you are infected with the virus which will eventually lead to AIDS. AIDS is the last stage of the HIV infection. Once a person is diagnosed as having the HIV infection, it may take up to seven years to develop AIDS which will then kill the person. (Slaff & Brubaker 141).

As we mentioned earlier, it can take up to seven years for AIDS to develop. The reason for this is that the AIDS virus stays dormant or inactive, hiding among and even inside the T-Helper cells in the human body. The AIDS virus stays inside of the T-Helper cell until some signal causes it to explode into activity. Doctors believe that things like pregnancy, surgery, or stressful illnesses can trigger the AIDS virus. When the AIDS virus explodes, it turns the T-Helper cells into virus-making factories. The AIDS virus uses the material of the invaded T-Helper cell to make millions of copies of itself before it kills the T-cell. These newly made AIDS viruses then swim freely in the bloodstream to find other healthy T-Helper cells to invade and destroy. While the AIDS virus is in dormancy (inactivity), it does little damage to the immune system. Because of this, the victim is unaware that he or she has been infected. This is the state of the symptomless (no signs) carrier (Slaff & Brubaker 15-17). It is during this symptomless time that this symptomless carrier is most dangerous. Having unprotected sex with one of these people could cost you your life. Sharing a needle with one could also cost you your life. It must be remembered that these people do not know they are sick and going to die. They feel and act normal. There are no signs that the person is sick during the dormant stage.

Once the AIDS virus begins to become active, it begins destroying the functioning immune system by killing T-Helper cells. It also finds deadly support from other germs. Together, they make the immune system defenseless against attack by other germs. This process feeds on itself. The weaker a person's immune system becomes, the more chances that other infectious germs will attack the immune system. The more it is attacked by new germs, the weaker it becomes. In the terminal (final) stages of AIDS, patients usually are suffering from more than one disease or virus. In fact, patients who die of AIDS actually die other types of infections that the immune system can no longer fight off (Slaff & Brubaker 17-18).

Study Questions

- 1. It was projected that by the end of 1991, there would be about _____ AIDS cases in the U.S..**

2. **The average length of time a person will live after he or she has been diagnosed as having AIDS is ___ months.**
3. **More than _____ of the Americans who are now infected with the AIDS virus are unaware of their infection.**
4. **The AIDS virus can only live _____ outside the human body.**
5. **AIDS is a disease which destroys the body's ability to protect itself against _____ and _____.**
6. **The AIDS virus attacks and kills _____ that attack invading disease organisms.**
7. **AIDS is the last stage of the HIV infection, and it can take up to ___ years to develop.**

SYMPTOMS AND PROGRESSIVE NATURE OF THE DISEASE

The destruction of the body's immune system caused by HIV is a slow, gradual process. Some people have died of AIDS as soon as two years after they were infected. However, the average incubation time (time from infection to the diagnosis of AIDS) is usually 2 1/2 to 5 years, and can be as long as 10 years. This means that a person can not look sick for many years, and still pass AIDS onto others if that person engages in unsafe behaviors. People who are infected with the HIV virus, but do not yet have a diagnosis of AIDS, can still spread the disease. Of the approximately 1.5 to 2 million people today in the United States infected with HIV, the vast majority do not have any physical problems related to the infection. A large percentage of these infected people are not aware that they are carriers of this disease. They look, work, play, eat, etc. just like any other person who is not infected with the AIDS virus (FBP, 1991).

As this disease progresses in an apparently healthy person who is HIV positive, he or she may not at first realize what is happening. Some early symptoms may be unexplained weight loss, fevers that last for longer than a week, night sweats, weakness, and recurrent diarrhea. A person may notice enlargement of the lymph glands in his or her neck, armpits, or groin. Some people will develop infections that cause white patches in their mouths. Others will notice whitish areas on the sides of their tongues. These complaints may last for weeks or months before they disappear, or these symptoms may never stop and gradually get worse. Just because a person has one or more of these problems does not necessarily mean that they are HIV infected, since other diseases can cause similar problems (FBP, 1991).

As the HIV infection continues to progress, the person's immune system becomes so weak that he or she is at risk of developing many infections which would not have developed if the person were healthy. At this point, the diagnosis of AIDS is made. The most common of these infections is pneumocystis carinii pneum which causes a cough and trouble breathing. Other diseases can infect the brain causing severe headaches, confusion, memory loss, difficulty walking, and even coma (loss of consciousness). The eyes can be affected with resulting blindness. The digestive tract can be invaded by an infection resulting in severe diarrhea, high fevers, vomiting, and the inability to swallow without pain. The person may develop cancers, the most common being Kaposi's sarcoma, a normally rare skin cancer. As a person's defenses against diseases breaks down, diseases that would normally be easily fought off have the opportunity to attack throughout the person's body. It is these diseases which the body normally fights off which grow unchecked and

eventually cause the AIDS patient's death. Approximately 85 percent of AIDS patients are dead 4 years after a diagnosis of AIDS. Even though people are afraid of AIDS, the person with AIDS is in much more danger from the diseases carried by other non-infected people than are non-infected people in danger of getting AIDS (FBP, 1991).

Study Questions

- 1. What is the average incubation time (time from infection to diagnosis of AIDS) of the AIDS virus?**
- 2. Can someone who feels very healthy for many years and is infected with the AIDS virus pass the infection on to others while engaging in risky behavior?**
- 3. Does everyone who is infected with the virus (HIV positive) know that they are infected?**
- 4. Is there any outward difference between a person who is HIV positive and someone who is not infected with the AIDS virus?**
- 5. Name some of the symptoms which may indicate that a person has AIDS?**
- 7. How can AIDS affect the brain?**

AIDS AND "HOMOSEXUALS"

When AIDS was first found in America, it was discovered primarily in homosexual men. In fact, male homosexuals made up more than 80% of the first 300 AIDS cases. Nearly 100 AIDS cases were reported in the summer of 1981. They were found in gay men in New York and California. Theories about what the disease was and how it acted began to run wild among medical people. Doctors and scientists began to link AIDS to the lifestyle of the gay man. At the same time, word about the disease began to spread throughout "Gay America." Homosexual men were frightened because AIDS was a deadly disease and so much was unknown about it. It became known as the "gay plague." A feeling of despair and depression began to spread through many gay communities (Slaff & Brubaker 114, 117).

In 1982, The Center for Disease Control found the AIDS virus in three groups. One group was Hemophiliacs (people whose blood does not clot and will bleed to death without constant blood transfusions). The other two groups were intravenous drug users (people who shoot drugs) and Haitian immigrants. These new facts were confusing to scientists at first. It was discovered in 1982 that these new cases were due to the spread of the AIDS virus in 1979-1981, before AIDS was discovered as a disease. Since AIDS was discovered in both male and females in these populations, this new information shattered the myth about AIDS being a "gay" disease. It quickly became clear that the AIDS virus will attack both males and females of all races and that it was not just a male disease (Slaff & Brubaker 118-119).

Study Questions

- 1. Who were first diagnosed as having AIDS in the U.S.?**

2. **In 1982, the disease was found in three groups: _____, _____ drug users, and _____.**
3. **It is now clear that AIDS attacks both _____ and _____ of all _____.**

HOW AIDS IS TRANSMITTED

There are airborne viruses and blood-borne viruses. Airborne viruses are viruses that are passed through the air. Blood-borne viruses are carried in body fluids, in particular the blood. Examples of airborne viruses are colds and flues, which can be transmitted through the air from one person to another from sneezes, coughs, telephones, door handles, etc. These airborne viruses are very contagious. That is, they spread quickly through the population. Family members infected with an airborne virus like a cold usually spread the cold to other family members (FBP, 1991).

The AIDS virus is a blood-borne virus. That is, the AIDS virus is found only within the body's fluids, mainly the blood and sexual fluids although it may also be found in very low concentrations in saliva, tears, and urine as well. In order to transmit the AIDS infection, the body fluid of an infected person must enter the blood system of a healthy person. The AIDS virus is very weak and cannot penetrate (get through) healthy skin. These AIDS infected fluids must get through the skin of a person to spread the infection. There are several ways to spread the HIV infection from one person to another. These ways of spreading the disease are called "High Risk" activities (FBP, 1991).

High risk activities are those behaviors that increase the chances of the AIDS virus being transmitted from one person to another. There are three basic ways that the AIDS virus is transmitted from one person to another: blood transfusions, sharing dirty needles, and sexual contact (Slaff & Brubaker 25).

There are many other blood-borne diseases that have a devastating (terrible) impact on people as well. Some of these diseases are syphilis, hepatitis B, and a deadlier form of hepatitis called hepatitis C. Syphilis and the AIDS virus are classed as "sexually transmitted diseases." The primary (main) way that syphilis and one of the ways AIDS is spread is through unprotected sex with an infected individual. Both types of hepatitis and also AIDS are spread through contaminated blood which might be passed onto others if people are sharing dirty needles (FBP, 1991).

Study Questions

1. **Is the AIDS virus an air-borne or a blood-borne virus?**
2. **The AIDS virus is found only within the body's fluids namely the _____ and _____ although it is also found in very low concentrations in _____, _____, and _____.**
3. **In order to transmit the AIDS infection, the body fluids of an infected person must _____ the _____ of a healthy person.**
4. **Describe what is meant by a high risk activity.**

5. What are the three ways that the AIDS virus is transmitted from person to person?

6. Name three other blood-borne diseases.

GETTING AIDS FROM BLOOD TRANSFUSIONS

Before HIV and AIDS was seen as a health problem in 1981, a number of people, including children, were infected with the disease through blood transfusions. They received this contaminated blood during operations or from accidents which caused bleeding. Unfortunately, almost 1% of AIDS infections have happened through blood transfusions (FBP, 1991).

Since 1985, the U.S. Government now has every unit of donated blood tested for the AIDS virus. These testing measures will greatly reduce the chances of AIDS being transmitted through transfusions of blood (FBP, 1991). In the research for this booklet, there was no mention regarding the safety of blood supplies in foreign countries. The only thing that can be said regarding foreign blood supplies is "Caveat Emptor" (let the buyer beware).

It is fairly easy for a mother to pass on the AIDS virus to an unborn baby if the mother is already infected. Approximately 1% of HIV infections are babies infected by their mothers. This can occur before delivery (intrauterine) or during delivery. Children that are born HIV positive may quickly progress into AIDS and die very young (FBP, 1991).

Study Questions

- 1. Since 1985, the U. S. government now has every unit of donated blood _____ for the AIDS virus.**
- 2. An infected mother can pass the AIDS virus to her baby either _____ or _____ birth.**

THE SPREADING OF AIDS THROUGH DRUG ABUSE

The sharing of dirty needles by intravenous (I.V.) drug users is a very risky behavior, and can easily result in the transmission of AIDS. The risk is not only for drug users, but also for those who inject drugs under their skin (skin pop drugs). Recent studies show that over half of the drug users who "shoot" drugs in certain areas like New York City, parts of New Jersey, and Los Angeles have gotten AIDS from sharing dirty needles. The study also showed that other areas where needle sharing is not common among drug users, there was a much lower rate of HIV infection (FBP, 1991).

Some drug addicts do not seem to care if they live or die, nor do they care if they infect others and cause their deaths. They rationalize this by saying they are going to die someday anyway. There are however much quicker and more painless methods of death than the slow, awful wasting away caused by AIDS. These people should but often don't use a new needle and syringe every time, in order to protecting themselves from HIV infection. Cleaning needles with chlorine bleach or boiling them in water for one-hour would lower the risk of HIV infection from the needle. Let it be said that the best way of stopping one's chances of getting the AIDS virus would be to never use drugs intravenously at all (FBP, 1991).

Aside from I.V. Drug Users, a second way drugs help to spread AIDS is through their biological and psychological effects. Drugs tend to lower sexual inhibitions. Drugs, generally speaking, dull the new brain or neocortex first. The new brain contains the areas for judgment, reason, morals, conscience, and other higher level thinking processes. When a person uses drugs, the old brain gets an unfair advantage in directing behavior. The old brain contains more primitive instincts and drives like rage, hunger, thirst, and sex drive. When inhibitions are lowered, the old brain blocks good judgment from controlling behavior. Hence, women and men may have sex while on drugs when they normally would not have, and the HIV infection spreads (FBP, 1991).

A third way in which drug use may be related to AIDS is physical. The continued heavy use of alcohol has been shown to lead to a weakening of the immune system. Test tube experiments suggest that marijuana may have the same effect at very large doses. Also, prolonged periods of stress, which would occur during a "run" on cocaine or amphetamines, could reduce the body's ability to fight off disease. If the AIDS virus attacks a person with an already weakened immune system, its advance may be more rapid than usual (FBP, 1991).

Study Questions

1. The _____ of _____ by IV drug users is very risky behavior and can result in transmitting AIDS.
2. Over ____ of the drug users who "shoot" drugs have the AIDS virus.
3. Cleaning needles with _____ or _____ in water for _____ would lower the risk of HIV infection.
4. Drugs tend to lower _____.
5. A third way in which drugs may be related to AIDS is _____.

THE SPREAD OF THE DEADLY AIDS VIRUS THROUGH UNPROTECTED SEXUAL CONTACT

Another very common method of spreading the AIDS virus is through unprotected sexual intercourse. Sex includes the exchange of body fluids. Unless safe-sex methods are used, the risk of getting AIDS is very high. We will now talk about some types of risky sexual behavior (FBP, 1991).

Sex with the highest risk of HIV transmission is anal intercourse. The anus has very thin walls and anal intercourse can cause small tears in this area. The virus can then enter through these abrasions or small cuts because it is in infected sperm. Studies show that the receptive partner is at the highest risk. A disturbing statistic revealed by a report written in 1987 found that 98% of homosexual men who were diagnosed as having AIDS had participated in anal intercourse and experienced anal bleeding. This however does not mean that the other participating person is at no risk. (FBP, 1991).

Vaginal intercourse (sex with a female) is not quite as risky as anal intercourse. One of the vagina's main functions is that of a sex organ. It naturally lubricates (oils) itself. This prevents tearing.

However, the vagina still absorbs fluid and it is dangerous to have unprotected vaginal intercourse and extremely dangerous with an AIDS infected person (Slaff & Brubaker 176).

Safe-sex includes the use of condoms (rubbers) and spermicides (solutions that kill sperm). A 1988 study of the risk of heterosexual (sex between male and female) intercourse with a HIV partner found that the use of condoms reduced the risk of getting AIDS to one out of every 10 times. This is because condoms tear, especially if petroleum jelly is used which weakens them. For repeated, unprotected vaginal intercourse, the chances for infection are two in three. For one time, the chances change to one in five hundred. Therefore, the odds show that a regular partner who is having sex with an infected person will get the HIV infection if a condom is not used every time (FBP, 1991).

Oral sex could also be a way of transmitting the AIDS virus from one person to another; however, it is less risky than intercourse. It is thought that the digestive juices and fluids in the stomach, mouth, and throat, along with the thickness of the lining of the stomach act together to kill the virus before it gets into the blood stream. The spread of the AIDS disease through oral sex has been reported, but it is less frequent than the other forms of sex. Oral sex between women has also shown to be less risky than the other forms of sex, but potentially a source of HIV infection (FBP, 1991). If there is a canker sore on the lip, a fever blister in the mouth, a cut lip, or an injured gum during oral sex, this may allow a path for the virus to get into the blood stream, eventually killing the victim (Slaff & Brubaker 177).

Study Questions

1. **Another very common method of spreading the AIDS virus is through _____.**
2. **Sex with the highest risk of HIV transmission is _____.**
3. **Is it dangerous and risky to have _____, _____ vaginal sex with an AIDS infected person.**
4. **Safe sex includes the use of _____ and _____.**
5. **The spread of the AIDS disease through oral sex has been reported but it is _____ frequent than the other forms of sex.**

TRANSMISSION TO UNBORN BABIES OR PERINATAL TRANSMISSION

It was mentioned earlier that the AIDS virus has been transmitted from the mother to an unborn infant. This can occur before delivery (intrauterine) or during delivery (peripartum) (FBP, 1991). The virus can be passed directly through the placenta, or indirectly, through infected milk. In one study, 16 mothers infected with the AIDS virus gave birth to infants who were infected with the virus. It is clear that a mother infected with AIDS can infect infants with the AIDS virus. For this reason, pregnancy should be avoided by couples when one of them has an AIDS virus infection (Slaff & Brubaker 180).

Study Questions

1. **The virus (AIDS virus) can be transmitted (to an infant) directly through the _____, or indirectly through _____.**
2. **_____ should be avoided by couples in which there is an AIDS virus infection.**

SAFE-SEX AND AIDS

In talking about safe-sex, it is important to identify what safe-sex is. It is also important to show how it helps prevent the spread of the AIDS virus. First of all, it is now being estimated that unsafe sexual contact will be the most common (usual) way of passing the AIDS virus from one person to another; therefore, it is important to practice safe-sex. The most important rule is having sex with only one partner. Promiscuity (having sex with more than one or many sexual partners) is the single most dangerous abused sexual practice. It could cause you a very slow and painful death if you are infected by AIDS. (Slaff & Brubaker 94-96).

Staying with the same sexual partner holds true for both homosexuals (sex between two people of the same sex) and heterosexuals (sex between two people of the opposite sex). You see, every "new" partner increases your chances of becoming infected. How is it possible to choose a "safe" partner? The only sure way to know is to get a blood test. In today's world, good advice is to presume (to take for granted) that your partner is infected until you know otherwise. There are some other rules regarding sexual contact that would also greatly lessen your chances of getting the AIDS virus. They are: (1) Do not ingest (swallow) semen. (2) Avoid oral contact with the vagina, rectum, or penis. (3) Do not receive ejected semen in the vagina, rectum, or mouth. (4) Do not ingest (swallow) urine. (5) Do not exchange (pass) saliva. (6) Do not have any kind of sex without washing with soap immediately afterward. (7) Do not have sex with multiple partners. (8) Do not have sex if you have a fever. (9) Do not have sex when you know you are ill. (10) Do not take immune-altering (immune-changing) drugs (basically all recreational drugs and alcohol) when having sex. Upon reading these rules, individuals are often shocked. But after some careful thought, especially if they are not involved in a completely monogamous (one to one) relationship, these individuals come to agree that the rules make good sense. There are a lot of practices that express love and affection without exposing the participants to HIV infection. The bottom line is that **there must be no exchange of body fluids**. After all, the quality of the sexual experience relies on love, creativity, and mutual exchange of feelings, not on the exchange of body fluids (Slaff & Brubaker 96-97).

Study Questions

1. **_____ will be the most common way of transmitting the AIDS virus from one person to another.**
2. **_____ is the single most abused sexual practice.**
3. **Every _____ partner could be a risk.**
4. **Good advice is to presume your partner is _____ until**

you know otherwise.

5. List the 10 rules regarding sexual contact that would greatly lessen the chance of getting the AIDS virus.

- (1)
- (2)
- (3)
- (4)
- (5)
- (6)
- (7)
- (8)
- (9)
- (10)

6. The quality of the sexual experience relies on _____, _____, and _____ exchange of feelings.

CAN AIDS BE SPREAD THROUGH CASUAL CONTACT

We have learned that the HIV (AIDS) virus is a very dangerous disease. We have also learned that it is a blood-borne virus; therefore, it is not transmitted through the air (FBP, 1991).

Still many people have questions about how the disease is spread. Can I get AIDS from coughing, sneezing, shaking hands, or drinking from the same cup? How about the toilet seat, a razor, or toothbrush? Can I get it from living with someone who has it? The answer is no (FBP, 1991). If a person was exposed to a cold, influenza, AIDS, hepatitis A, or strep throat in casual contact, the **least** likely disease they would get is AIDS.

There are claims that this virus has been found in tears and sweat. Again, the amount of virus even when found was very small. There is little medical evidence which indicates that people get infected through tears or saliva. (FBP, 1991).

The best evidence and research on the results of casual contact with a HIV infected person has come from studies where one or more members of the family are HIV positive. Over 100,000 cases of documented AIDS cases have been reported. None of these cases is the result of casual contact (FBP, 1991).

Additional evidence supports the fact that AIDS does not spread through casual contact (touching, kissing or hugging) comes from seven separate studies. Five hundred family members were followed who had a HIV positive relative in the family. They were seen sharing beds, bathrooms, dishes, and even personal hygiene (cleanliness) articles like razors and toothbrushes. There was also affectionate (tender) kissing, even on the lips, with these family members. The family members did not take any unusual or extra measures to protect themselves. The findings were clear. No one caught AIDS, even after living with HIV positive family members for a long period of time (FBP, 1991).

Studies in schools show the same thing. In a French study, AIDS infected hemophiliac (tendency to bleed freely, lack of blood-clotting) children had long-term casual contact with uninfected children.

None of the uninfected children became HIV positive through casual contact (Lancet, September 13th, 1986, Pg. 598-601 / FBP, 1991).

There are studies which show that the AIDS virus has been found in tears, saliva, and urine in very small quantities. Again, it was decided that the quantities found presented a low risk for AIDS infection. In a separate study, an AIDS infected person bit thirty medical workers. None of them tested positive for the HIV infection (FBP, 1991). The risk of transmitting the AIDS virus from infected food, or bites, appears to be very low. No known cases have been reported of AIDS transmission through foods or after being bitten (FBP, 1991).

Study Questions

- 1. Can the AIDS virus be spread from one person to another through casual contact? Yes or No.**
- 2. If a person was exposed to a cold, influenza, AIDS, or strep throat through casual contact, what disease would they be least likely to get?**
- 3. Over 100,000 cases of documented AIDS cases have been reported. None of these cases is the result of _____.**
- 4. What is the risk of HIV infection from body fluids such as tears, saliva, and urine?**
- 5. No known cases have been reported of AIDS transmission through _____ or after having been _____.**

AIDS AND INSECTS

There are people who believe that a mosquito, or other types of biting insects could infect a person with the AIDS virus. In the Belle Glade, Florida, an area with large amounts of mosquitoes and other insects, researchers studied AIDS transmission. There was not one case of anybody being infected with the HIV virus by a bug bite. It is true that some bugs have been known to carry diseases like Malaria (intense fever) or Limes disease carried by ticks). Research results have shown however, that the HIV virus is not spread by any type of insect (FBP, 1991).

Study Questions

- 1. Research results have shown; however, that the HIV virus _____ transmitted by any type of insect.**

AIDS AND ALCOHOL

There are two very strong reasons to study the connection between AIDS and alcohol. Alcohol badly affects the immune system, and alcohol helps promote (push) high-risk sexual behavior.

Remember, the AIDS virus attacks the body's immune system, and getting the AIDS virus can be a result (effect) of high-risk sexual behavior (Alcohol Alert, January 1992).

Alcohol has been shown to weaken the immune system that protects the body from disease. Repeated alcohol use has been shown to reduce the number of T-Helper cells that help fight outside diseases (Alcohol Alert, January 1992).

The information is backed up by an important study done on 24 healthy volunteers. The study showed that a single drunk lowered certain immune traits of their white blood cells (T-Helper cells). This white blood cell count was compared to those of 24 non-drinkers. It was found that the white blood cells taken from the drinkers were more susceptible (likely to get) to HIV infection than the cells of the non-drinkers. This was just after only one drinking event (Alcohol Alert, January 1992).

Therefore, drinking alcohol can increase your chances of getting the HIV infection if you have been exposed to the virus. Also, because alcohol affects the immune system, an HIV infected person who is constantly drinking is only speeding up the destruction of their immune system. In other words, both alcohol and the AIDS virus have bad, even deadly, effects on the human immune system. Put them together, and they act as helpers to each other. (Alcohol Alert, January 1992).

It is a fact that too much drinking is tied together with high risk sexual activity. You know that high risk sexual activity can increase the chances of getting the AIDS virus. What usually happens is that when people drink too much, they lose their inhibitions (controls) and almost always their good judgment. This, in turn, can lead to high-risk sexual activities such as unsafe sex (Alcohol Alert, January 1992).

So as you can see, there is a connection between alcohol and AIDS. There is no proof that alcohol by itself causes people to become infected with the AIDS virus, but as we have just seen, there is certainly a relationship between AIDS and alcohol and it is a dangerous one. It can be controlled; however, by simply not drinking (Alcohol Alert, January 1992).

Study Questions

1. Repeated alcohol use has been shown to _____ the number of _____ cells that help fight outside diseases.
2. Put them (Alcohol & AIDS) together, and they act as _____ to each other.
3. When people drink too much, they lose their _____ and almost always their _____. This, in turn, can lead to _____ sexual activities like _____ sex.
4. How can you control the relationship between AIDS and Alcohol? _____.

AIDS IN PRISON

There are people with AIDS in prison just as there are people with AIDS outside of prison. Outside of prison, HIV positive persons work in many different kinds of jobs, even around food, or in a

health care settings. Hepatitis, HIV and other sexually transmitted diseases, tuberculosis, and other diseases are not usually screened for by employers on the street. Your child's babysitter, your grocer, and your barber could be HIV positive and you would never know it (FBP, 1991).

In prison, there is actually greater control. The prison can limit who works in the kitchen and who works in the hospital, even though the risks of transmission are minimal through routine job functions. Since HIV infection is treated like any other blood carried disease, normal precautions should be taken with all people because HIV status is rarely known (FBP, 1991).

A slight chance of infection exists in prison if shaving razors or toothbrushes are shared. Both of these personal hygiene items may collect blood and deposit this blood into a minor cut or scrape of an uninfected person. A greater chance for infection exists if a person is tattooed. Blood on the tip of an unsterilized tattoo needle is potentially infectious, and the skin is jabbed many, many times. Transmission of the AIDS virus has been reported from tattoo parlors. For this reason, tattooing is strictly forbidden by prison officials (FBP, 1991).

Some prisoners may get drugs into prison and attempt to "shoot up." They will sometimes use an eye dropper and a stolen or broken needle to inject drugs, but these homemade "works" are rarely sterilized properly. Overdoses (O.D.s) have occurred because of reduced tolerance levels to drugs. Convicts have been punished and transferred, and some have given themselves a death sentence due getting an HIV infection from using dirty needles inside prison (FBP, 1991).

Blood should never be touched without the use of latex gloves unless it is an emergency situation. Strong cleaning fluids like bleach should be used to clean blood from floors and other surfaces. The blood from someone who has been injured in a fight or accident could also be infected. Again, their contaminated (diseased) blood could enter through a cut, break, or scrape in the skin of another person (FBP, 1991).

It should also be said that people living in prison should not join in any sexual activity. Prison officials have created clear rules which do not allow these kinds of activities (FBP, 1991). The penalties for breaking these rules are harsh (hard), but with good reason. Anybody living in prison who breaks these rules are not just only putting themselves at risk, but everyone else as well. Stay away from the high-risk activities mentioned before, and you will greatly lessen your chances of being infected with AIDS (FBP, 1991).

Study Questions

1. Your ____, your ____, and your ____ could be HIV ____ and you would not necessarily know it.
2. In prisons there is actually ____ control over the ____ spread of disease.
3. Blood ____ be touched without the use of ____.
4. In prison, a slight chance of HIV infection exists if which items are shared?
5. Strong cleaning fluids like ____ should be used to clean blood from floors and other surfaces.

6. **Prison officials have created clear rules which _____ these kinds of activities (any sexual activity). The penalties for breaking these rules are _____.**

CURRENT RESEARCH

A large amount has been learned in a few short years about the AIDS virus. There are laboratory studies that are very promising, but scientists are still a long way from finding a cure. They know that it is a blood-borne virus (FBP, 1991). We know that AIDS is transmitted by unsafe sexual contact, blood transfusions, and sharing dirty needles (Slaff & Brubaker 25).

A good educational program can go a long way toward preventing (stop) the spread of the AIDS virus. Through schools, T.V. ads, parents and other means of education, we can teach people to stop joining in activities that helps the spread of AIDS (Slaff & Brubaker 161).

Scientists are trying to develop a cure for AIDS in the form of a vaccine. This is proving to be harder than scientists thought it would be. The AIDS virus has traits that make it almost impossible to find a curable vaccine for it. First of all, scientists are finding out now that the AIDS virus comes in many different forms. Dr. Robert Gallo, at The National Cancer Institute, has already studied 18 different AIDS viruses (strains). This means that doctors may have to find a cure for each and every type of the virus. In addition, the virus is constantly changing and is very hard to keep up with (Slaff & Brubaker 185).

Since the virus appears to change over time, a vaccine which worked yesterday may not work tomorrow. Dr. Hazletine said, "Trying to develop a vaccine for AIDS is like trying to hit a moving target. Also as of now, no vaccine has been developed for humans for any of the retrovirus family which includes the AIDS virus" (Slaff & Brubaker 180). Even though doctors are working very hard to find a vaccine, they do not expect to have a vaccine for several years (FBP, 1991).

Even with these problems, doctors are still working hard to find a cure. Dr. John Rossi, of The Becham Research Institute in California, has been working on a vaccine using the science of genetics (the scientific study of the heredity of individuals). His first tests have been positive. Meanwhile, unusual treatments for AIDS are being tested, such as "Compound Q" which is derived (taken from) the Chinese cucumber root (FBP, 1991).

To date, the most effective treatment for HIV (AIDS) infection has been a drug called AZT (azidothymide). This drug slows the spread of the virus within the body by blocking the virus' ability to reproduce (make copies of itself). This drug has worked very well with some people. Unfortunately, it has not worked well with others (FBP, 1991).

Study Questions

1. **Is there currently a cure for AIDS? Yes or No.**
2. **Dr. Robert Gallo, at The National Cancer Institute has already studied _____ different AIDS viruses. This says that doctors may have to find a vaccine for _____ type of the AIDS virus.**
3. **Once the virus is inside the body, its structure _____ a lot to _____ the body's _____ cells that are trying to**

fight it.

4. **Even though doctors are working very hard to find a vaccine, they do not expect to find one for _____.**
5. **Dr. John Rossi, of the Bechman Research Institute in California, has been working on a vaccine using the science of _____.**
6. **To date, the most effective treatment found in the HIV infection has been a drug called _____ (azidothymide).**

DO I HAVE THE AIDS VIRUS?

Previously we have learned that over 1 million people are currently infected with the AIDS virus and more than 90% of them do not know it and may be infecting thousands of people every day. We also know that to be involved in certain activities called "high risk" activities greatly increases the chances of being infected with the AIDS virus (Slaff & Brubaker 247).

If a person has participated in high risk activities, there are important reasons that should compel (drive) the person to know if he or she is HIV positive (has the AIDS virus). If the person is HIV positive, he or she would want to take measures to protect their sexual partner. He or she may wish to reevaluate plans for marriage or children (Slaff & Brubaker 204).

There is an established process (set of steps) to test blood for the AIDS virus. The tests look for the presence of specific antibodies which the body creates to fight the AIDS virus, not the virus itself (Slaff & Brubaker 57). The first test is called, for short, the ELISA test. If the test is positive, it indicates the presence of AIDS antibodies in the blood. The blood is tested twice more. If all three ELISA tests are positive, then a confirming test is run. This confirming test is called the Western blot test. If all four of the tests are positive, then it is confirmed that the person is infected with the virus (Slaff & Brubaker 51-52). The reliability of these tests practically eliminates the possibility of a mistake (e.g., test results indicating the person has antibodies to the virus and he/she really does not) (Slaff & Brubaker 210).

These tests are given to all blood that is donated in the United States (Slaff & Brubaker 51). Any person who tested positive is notified by the Red Cross. The Red Cross has a list of criteria (guidelines) to determine people who should not give blood because they have engaged in risky behavior (Slaff & Brubaker 40). It is possible that a false negative may be registered because it takes from two weeks to six months before antibodies against the virus are in the blood stream after initial infection. The ELISA and Western blot test look for antibodies, not the virus itself (Slaff & Brubaker 57).

There are three ways that a person can have their blood tested: give blood (not recommended), be tested by their family doctor, or be tested by an alternative test site (Slaff & Brubaker 52).

Your doctor may order a blood test if there are signs of a possible full AIDS infection with such symptoms as persistent (continual) swollen glands, weight loss, and diarrhea. You could request your doctor to have the blood test given to you even if there were no outward symptoms (Slaff & Brubaker 52-53).

There are alternative test sites which can conduct the required blood tests. These test sites are scattered throughout the country. A person who wishes to use one of the test sites can call for a

counseling appointment at the test site. If the person is not a member of a risky group, that person will be discouraged from taking the test. On a second appointment, the blood sample is drawn for the test (Slaff & Brubaker 53). Telephone numbers for these sites can be obtained from the Red Cross or from the "underground" newspapers in various cities such as Los Angeles' "Free Press" or Phoenix's "New Times." These sites charge for the tests and the charges vary widely.

Strict safeguards are in place to protect the privacy of individuals whether they choose to or not to have an AIDS test. Except for one state, Colorado, there is no mandatory reporting of an HIV positive condition to a local health authority (Slaff & Brubaker 205). In fact, two states, Wisconsin and California, prohibit the use of an AIDS test to determine whether a person should or should not receive life insurance (Slaff & Brubaker 240-241).

If you have participated in behavior which puts you at risk of getting AIDS, as described earlier, it is important for you to be tested. This is the only way to know if you are infected with the virus and are putting others at risk by continuing your behavior (Slaff & Brubaker 204). Having your blood tested shows that you are taking the first step to show your concern about this epidemic (Slaff and Brubaker 205).

Study Questions

- 1. What do the AIDS blood tests look for?**
- 2. What are the names of the two blood tests that are given?**
- 3. How many times are each test given and in what order before a diagnosis of carrying the AIDS virus is made?**
- 4. In what three ways can the blood tests be given?**
- 5. Which one of the three ways is not recommended?**
- 6. In what state is it mandatory to report a HIV positive condition to health authorities?**
- 7. Why might your doctor request a blood test for the AIDS virus?**

FEAR AND PREJUDICE ABOUT AIDS

There is a tremendous amount of fear and prejudice against a HIV positive person. This fear and prejudice is rooted in ignorance about the disease and how it is spread (FBP, 1991).

Ignorance about AIDS manifests (shows) itself in many strange ways. Some people have exploited public ignorance about the spread of the virus by attempting to sell "AIDS Public Telephone Mouthpiece Protectors." These "protectors" were nothing more than custom shaped pieces of wax paper (Slaff & Brubaker 102). We have seen many cases in the press of children (Ryan White was an excellent example) who have been denied schooling because, through no fault of their own, they carry the AIDS virus (Slaff & Brubaker 233). There are many cases of people being fired once their employer knew they had the AIDS virus (Slaff & Brubaker 235).

The prejudice against HIV positive people is intense. This is true in prison as well as on the

outside. It is interesting to see how a person's perspective (view) about people infected with the AIDS changes when they learn that they are also infected. This was best summed up by a prisoner who said, "I used to believe we should treat HIV persons differently, till I became one myself. Now all I want is to be treated like everyone else" (FBP, 1991).

Study Questions

1. **There is a tremendous amount of fear and prejudice against an HIV positive person. This fear and prejudice is rooted in _____ about the disease and how it is _____.**
2. **The prejudice against an HIV positive person is _____.**

THE 12 MOST ASKED QUESTIONS ABOUT AIDS

As with anything that is as deadly and as misunderstood as AIDS, there are always questions. The answers to these questions try to give information and clear up the misunderstandings that p have. Since the AIDS virus is so deadly to human life, many questions come straight from paranoia (intense fear). Let us take a look at the 12 most asked questions about AIDS, and see what the answers are.

Q#1. When and how did AIDS come to America?

ANS. AIDS was first defined by The Center for Disease Control in June 1981. It is believed that the virus first infected Americans in either 1976 or 1977 while vacationing in the Caribbean (Slaff & Brubaker 25).

Q#2. How many people are infected with the AIDS virus?

ANS. It is uncertain, but current estimates run from a low of 500,000 to 3 million or more (Slaff & Brubaker 25).

Q#3. Is the AIDS virus contagious?

ANS. Yes. It can be transmitted in any way that allows for the exchange of body fluids (Slaff & Brubaker 25).

Q#4. Can you tell by inspecting a potential partner if that person carries the AIDS virus?

ANS. No. Unlike herpes, which causes symptoms (signs) such as pain or blisters, carriers of the AIDS virus show no symptoms of infection. They do not know they have the AIDS virus. The only way to find out is to have your blood tested (Slaff & Brubaker 28).

Q#5. Other than sexual contact, how can I catch the AIDS virus?

ANS. The other major way of transmission is through contaminated (bad) blood or blood products. It is also possible to get AIDS from sharing needles (of any kind), a razor, blood transfusions (Slaff & Brubaker 32).

Q#6. Am I safe, for example, in a restaurant, a bar, a jacuzzi, a hot tub, or a public toilet?

ANS. There are no documented incidents of someone catching AIDS in any of these places. A restaurant that is sanitized (cleaned) properly is almost completely safe from transmitting the AIDS virus. A bar is considered to be generally safe. It is unlikely that you could catch the AIDS virus from sipping the drink of an infected person, because the bars rinse and clean every glass before they use it again. The water is usually very hot and chemically treated in a hot tub or jacuzzi. Therefore, the chances of catching the AIDS virus in a jacuzzi is very low. The danger of catching AIDS by a public toilet is very small. It is believed that the threat of catching AIDS from any of these places is the same as being hit by a bolt of lightning (Slaff & Brubaker 32-33).

Q#7. Is kissing safe?

ANS. No. In 1983 the AIDS virus was found in saliva. It may be possible to catch AIDS from an infected person by passing saliva such as in "French kissing" (Slaff & Brubaker 31).

Q#8. Will a vaccine be developed that will protect me against the AIDS virus?

ANS. Possibly. Work on a vaccine is being done at The National Cancer Institute, Frederick Cancer Research Facility in Frederick, Maryland. So far, no vaccine has been successfully created. For the known future, personal responsibility is the only effective way to counter (fight) the spread of the AIDS virus (Slaff & Brubaker 29).

Q#9. Are children safe from the AIDS virus at school?

ANS. Most likely. The AIDS virus is very rare in school-age children, even in heavy HIV infected areas. There is very little chance that the AIDS virus could be transmitted (passed) through casual contact in a school setting. Of course, looking at the dark side, if school children are

sharing needles while using drugs, or joining in unsafe sexual activity, then they put themselves in danger of getting the AIDS virus (Slaff & Brubaker 33-34).

Q#10. If I have been exposed to someone carrying the AIDS virus, can any steps be taken to prevent infection?

ANS. No. There are no "morning after" treatments that can prevent infection from happening if transmission (passing) has taken place. Research is being done to find a shot that one can take, but it is years before this would possibly be ready (Slaff & Brubaker 47).

Q#11. Other than taking blood tests, how can I tell if I have been infected with the AIDS virus?

ANS. There is no other way to tell. A person must take a blood test to see if he or she has been infected with the AIDS virus (Slaff & Brubaker 50-51).

Q#12. Does everyone who develops AIDS die?

ANS. Yes. The average length of life after a person finds out they have the AIDS virus is 18 months (Slaff & Brubaker 73).

CONCLUSION

Today, our nation is in one of the greatest public health crises (emergencies) of the 20th century (1900's). It has been less than ten years since the AIDS infected person came to America. Since then, the AIDS virus has infected more than one million Americans Many of these one million will die of the disease along with millions more they have infected (Slaff & Brubaker 145-146).

In 1982, less than 100,000 Americans were infected with the virus. By 1986, more than 1.5 million Americans will be infected with the virus, and it is guessed that 3 million Americans could be infected by 1992 (Slaff & Brubaker 158).

It (AIDS) is a killing machine, and what makes it so deadly is that more than 90% of those who are infected do not know it. Scientists now know that many different types of the AIDS viruses exist. They also know that this deadly virus is constantly changing and can hide itself in the human body very easily. Therefore, the prospects of finding a vaccine that will kill the AIDS virus is not too hopeful. The best way to fight a health problem like this, is for our society to admit that "We have a huge problem" (Slaff & Brubaker 10, 247).

There are doctors and scientists working day and night to find a medical cure for the AIDS virus. Still, the best way to stop the spread of AIDS is to educate people about how this killer AIDS virus is spread. This gives people a choice. They can either stop getting involved in high risk activities or they can die.

These kinds of activities include unsafe sex, sharing dirty needles, and using drugs and alcohol.

Since a medical cure for the AIDS virus is not predicted for the near future, the only reliable defense against AIDS is not participating in high-risk behaviors. If this is done, then a person need not to worry about ever catching the AIDS virus (FBP, 1991).

Study Questions

1. AIDS is a _____ machine, and what makes it so deadly is that more than _____ of those who are infected _____ know it.
2. Finding a vaccine for the AIDS virus is _____ hopeful.
3. The first way to stop the spread of AIDS is to _____ people about the AIDS virus and to _____ participating in _____ activities.

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