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# **TESTING**



### **TESTING**

#### What is an HIV Test?



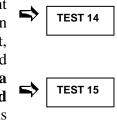
This is a test that is done on a person to determine whether or not he/she has the HIV virus which causes AIDS. Testing is the <u>ONLY</u> way one can be sure of their HIV status. One cannot know by how he/she looks or feels. Blood is taken from the person and sent to a medical laboratory for testing. The laboratory, however, **cannot** see or isolate the actual HIV virus. Laboratories can only see if there are **antibodies** present in the blood which the body produces to fight that HIV virus.

What are HIV antibodies? Importantly, the human body's defense-immune system makes special fighter-soldier cells for every disease one contracts. For example: if one has the measles, the body will make a special measles fighter cell called a measles **antibody. Antibodies are specific fighter cells for a particular disease.** The person's body, that becomes infected with the HIV virus, will make special **antibodies** designed to only fight off the HIV virus. However, in the case of HIV infection, although the antibodies fight the virus they eventually lose the war and the body cannot chase them all away. The **immune defense system** and **antibodies** are not able to remove HIV from a body.



#### **The Window Period in HIV Testing**

When HIV enters one's body, the body will begin to make **antibodies** to fight the HIV virus. If the infected person has an HIV test soon after becoming infected, the **antibodies** may not yet show up in the blood test under the microscope. This is because the person's body might not yet have produced **antibodies**, or the person still does not have sufficient antibodies in his/her blood to show on the blood test. Although this infected person has had an HIV test, the test can come back **HIV negative**, meaning they have found no **antibodies** in the blood that they can see. **This is what is called the <u>WINDOW PERIOD</u>. This can produce a <u>false negative</u> test because this person was in the <u>window period</u> and has not had <u>sufficient time between infection and the test.</u> A <u>false negative</u> HIV test result means that although the antibodies are not found in the blood, that person is still <b>HIV positive.** A <u>true negative</u> HIV test result means that the person has had sufficient time for the body to produce antibodies; that none were found and this person is NOT HIV infected.



It is recommended that if a person has been at risk for HIV infection (usually by having sex) that they have <u>two</u> **HIV** tests approximately 3-6 months apart. This gives time for the HIV virus in the infected person's body to cause them to form **antibodies** that will show up in the test. Usually 3-6 months after infection, a truly HIV-infected person's blood will test HIV positive because **antibodies** will have been produced in the body. The blood, if infected, will now show **antibodies** (soldier-fighter cells). However, in a few instances it has taken up to 12 months or longer before the person tested HIV positive after infection. A person being HIV tested must always consider a possible **window period**.



An HIV test result is <u>ONLY</u> accurate for as long as one does not put himself/herself at risk for HIV infection again. For example: If a person has an HIV test, and the test reads negative after two tests, but they go out and have risky sex again, that test is no longer valid. This person would have to be tested all over again for HIV infection.



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#### **Testing HOW?**

- Only after informed consent
- Always with <u>pre-test</u> counselling before the test
- One tube of blood taken by a nurse and/or doctor and sent to a proper medical laboratory
- Two-ten days before results are available back to the clinic giving the test
- Post-test counselling important before receiving results of the test

#### **Testing WHY?**

Some people feel that IF they are HIV positive (HIV +) they would rather not know their status. They mistakenly think that ignorance about being infected will make the virus go away. This is very wrong.

It is very important for any person who may be HIV infected to know his/her status as early as possible. Knowing one's status by accurate testing can **prolong life considerably,** and can **give quality of life.** It also can protect infected people from spreading it to uninfected partners. If a person thinks he/she may be HIV infected and does not get tested to ascertain his/her status, that person is acting irresponsibly and ignorantly both towards himself/herself and others. HIV testing will help with the following:



- May relieve anxiety about whether or not one could have been infected
- Could well motivate sexual behaviour change
- By sexual behaviour change, the HIV-positive person who knows can then refrain from unknowingly infecting someone else and killing them also
- Allows for planning for the future if testing HIV positive
- Allows infected people to prevent themselves from being exposed to some opportunistic infections, which could make them sick faster. Note: The general public is far more of a danger to the HIV-positive person than is the HIV-positive person a danger to the general public. Because the HIV+ person's immune system is already at a disadvantage and cannot fight sicknesses as well as a non-infected person, the HIV-positive person is better off if he/she knows his/her status in order to avoid being around sick people
- Allows for **early** treatment of any opportunistic infections before the symptoms become too severe for the body to fight. This can prolong life and give greater quality of life. The HIV + person **who does not know** he/she is positive, would probably let symptoms go untreated for longer, and thus risk dying earlier
- Can focus on a healthy lifestyle and take steps that promote quality of life, for longer

- Can prepare themselves and their family for what might lie ahead once they move into full- blown AIDS. Can prepare for healthcare when one becomes sick
- Can make preparation for death and dying, and family care after death if the person knows why he/she is ill and that the sickness is HIV/AIDS related. Note: Many people who do not know their status get sicker and sicker and do not know why they are not getting better. If that person dies from a disease (which is really AIDS-related) often the death is attributed wrongly to another disease rather than for what it really is....AIDS. Ignorance never helps anyone!

#### **Confidentiality of Testing**

In most places worldwide, persons giving consent for an HIV test have the right to absolute confidentiality (meaning disclosure of test results may only be given to that person, and not to someone else without permission). The only exception to this rule of confidentiality would be a parent giving permission for an minor dependent child to be tested. Results can then be given to the parent or legal guardian.



#### **HIV Antibody Tests**

An HIV test will either be **negative** or **positive** for the HIV antibody. The test **cannot** tell you the following:



- When you became infected with HIV
- How you contracted HIV
- From whom you contracted HIV
- How long you've been infected with HIV
- How long you can stay healthy
- If you have an HIV-related illness
- How long it will be before you move into full-blown AIDS or AIDS-related illnesses



The HIV test **can only** confirm whether or not the antibody, signifying that you are HIV infected, is in your body and only after some weeks or months after infection.

HIV tests should be done only by a qualified, medically-trained person who knows how to take a proper blood test and can take it to a proper laboratory that is able to accurately test the blood. Friends or unqualified people can neither take a test properly, nor can they accurately test the blood for the HIV antibody.

#### **The Types of HIV Tests**

**ELISA TEST** is currently the most commonly used test. It is an easy and inexpensive test. It is also a very sensitive test and sometimes can pick up other antibodies in the blood leading to a **false positive** test result. A **positive result** will usually be confirmed with the same blood sample but on a different **ELISA test kit.** 



<u>WESTERN BLOT TEST</u> is a test that confirms HIV antibodies. This is a more specific but complicated test to perform. It is also more expensive.



<u>P24Ag</u> is a test that is not routinely used. It is far more complicated and expensive to give and is usually only used in the cases of doubtful antibody test results, during a possible window period, and in the diagnosis of possible HIV infection in newborn babies. It specifically tests to detect the presence of the "docking arms" of the HIV virus in the blood.



<u>Viral Load</u> is a term used to measure the number of viruses present in the body of an HIV-infected person. This test can help determine treatment for symptomatic illnesses and know the progression of the disease in HIV-infected persons.

<u>CD4 Count</u> is a test that measures the number of **T4-helper cells** left which help that person fight sicknesses. This can be used in assessing known HIV-positive persons, what damage has thus far been done to their immune system, and therefore reveal somewhat the stage of the disease in their body.

#### What Does an HIV Negative (-) Test Result Tell You?

• It tells you that your blood test is not detecting the **antibody** that fights HIV to be present in the tested blood. If you have not been in any risk exposure then you are testing a **true negative** test result. This means that the HIV/AIDS virus is not in your body



• It could mean that you have been infected more recently (within the last number of days, weeks or months) and that you are in the <u>window period</u>. This is a **false negative** test result. This person is **HIV positive** even though he/she is testing negative

#### What Does an HIV Positive (+) Test Result Tell You?

- That this person's body has produced **antibodies** that fight the HIV virus
- That the HIV virus that causes AIDS is in the blood even if he/she is not showing any signs yet of illness



Note: See the end of this section on children and what this means.

#### What does an Indeterminate HIV Test Result Mean?

• That the ELISA test is positive but the WESTERN BLOT test is negative or that the 1<sup>st</sup> ELISA test is positive and the 2<sup>nd</sup> is negative



• That the person has other health problems, infections, or is using medications that are affecting their immune system

Note: See section on children.

#### Who Should Get Tested for HIV?

Obviously, everyone should be concerned about the spread of HIV and the resulting premature death from AIDS. Yet, everyone takes this typical approach as follows, which allows HIV to spread unabated:

"HIV infection cannot happen to me; AIDS is not my problem. Therefore, I don't need to be tested!"

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For certain, AIDS is **everyone's** problem. It can happen to me depending on my own sexual behaviour in the past or now, or the sexual behaviour of any person I've ever had sex with in my lifetime! Ways for the HIV carrier to cease spreading this deadly virus include the following:

- That every person, especially Christians, would stop denying there is a problem
- That every person introspectively look into their own lives and ask, "Is there any possibility that I, or my spouse, could have ever been exposed to the HIV virus in our life?" If YES, then testing is the ONLY way to know for sure and to take responsibility for stopping the spread of HIV
- That every person help to take the fear and stigma out of HIV testing by being role models to those that need testing, by getting tested oneself particularly, those who are HIV/AIDS peer-educators, pastors dealing with possible HIV infected persons, and persons with possible past risky sexual behaviour. Remember that if a person has NEVER been exposed to the HIV virus and gets tested to role model to others who need to be tested, they have nothing to fear. Their HIV test will come back negative in any case! There is nothing to lose by helping possible HIV carriers to know their status.
- That HIV testing becomes more readily available and that mass education is conducted to help those who are infected to know it, and stop spreading the virus. Comparatively, governments have spent little on testing education and availability of testing for the general population in Africa. This needs to change if the spread of HIV is to be contained.

#### **Test Whom?**

- 1. All persons who have had more than one sexual partner in their lifetime, or whose sexual partner has had more than one sexual partner
- 2. All persons who have had sex outside of monogamous marriage, in any form, in the last 10 years
- 3. Persons who might have had sex with any possible infected person ever
- 4. Persons who have ever had sex with a prostitute
- 5. IV drug users
- 6. Persons who might have been exposed to HIV-infected needles, blades, knives or any other instrument/s
- 7. Persons who have been raped and/or molested by anyone in their lifetime
- 8. Persons who have had blood transfusions, particularly in the 1980s before blood was more carefully screened. Only about one in 40,000 units of blood is





- thought to have possible infection. However, this can differ depending on the screening process for blood in different parts of the world
- 9. Children who are born to possible infected mothers and/or breastfed by possible HIV-infected mothers

Note: See the short personal risk test at the end of this chapter to help you assess possible need for an HIV test.

#### **PRE/POST Test Considerations**

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The following are some considerations before test results are given to a person:

- Possible effect on employment. Note: In most countries it is illegal for the status of a person's HIV test to be given to an employer without consent
- May experience difficulty in receiving medical and dental treatment. Sadly,
  Africa in particular, has become so inundated with AIDS-related illnesses in
  healthcare facilities, that sometimes the HIV-infected person experiences a lack
  of sensitivity towards care for them. This is where 'home-based care' training
  and education at all levels is imperative
- May not be able to renew or obtain life insurance and/or bank loans. Life insurance companies can and most do require HIV testing before policies are issued. Whilst this seems discriminatory towards the HIV+ person, it is the ONLY way insurance companies can stay in business financially
- May be shunned by family and friends and experience some discriminatory situations. This is where the Church can assist by educating and sensitising the community to the real facts about HIV and AIDS so that discrimination, fear, and alienation are lessened for people living with HIV and AIDS in our nations
- May suffer from loss of self-confidence, rage, self-imposed blame and punishment for getting infected, feeling loss of control over life, etc.
- Living with uncertainty about 'when' and 'how long' it will be before moving into full-blown AIDS with all the accompanying sicknesses
- Experiencing changes in relationships, particularly if one is married. Matters such has sexual expression, etc. must be dealt with by safer ways of affection other than sexual intercourse
- Facing stigma, prejudices, and blame

Note: See Chapter 14 on pre/post test counselling procedures.

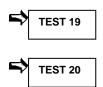
## What Minimum Procedures Should Be Taken in Obtaining Consent for an HIV Test?

These should be in writing and as well, clearly explained verbally to a person who is taking the HIV test:

1. I/We wish you to be tested for HIV infection

- 2. This is a test of your blood, which will help to establish whether or not you have been infected with the virus that causes AIDS
- 3. The reason/s I/we want you to have this test is/are: (Indicate both <u>in writing</u> and <u>verbally</u> why you believe this person needs to be tested)
  - To help you/us diagnose the illness you are experiencing
  - To help give you proper treatment
  - Because you may need an operation where caregivers may wish to know your HIV status (Note: This would be necessary only where certain well-defined high risk or exposure-prone procedures are contemplated, as set out in the national guidelines in each specific country.)
  - Because you contemplate becoming pregnant
  - Because you have asked to be tested for HIV infection
  - Because you are seeking a life insurance policy
  - Because you are seeking a money loan from a lending institution where it will want to be assured that the loan can be repaid
  - Because you are failing to perform your job due to related illnesses that are affecting performance and attendance on the job. (Note: Great care would have to be exercised here to show that this move is non-discriminatory and for the alternative benefit of the infected person)
  - Before marriage and as part of pre-marital counselling. The HIV test is particularly needed for the sake of each prospective spouse and unborn subsequent children, where the pastor and/or marriage counsellor have reason to believe there may have been risky sexual behaviour by either partner. (Note: In the day of AIDS many Christian pastors are setting a standard before performing a marriage by requiring all prospective persons to be HIV tested. Many believe this is the ONLY responsible route that a godly Pastor can take before performing marriages where there is the possibility of one's past behaviour affecting so many others. The HIV status needs to be known before performing a marriage.)
- 4. You should realise that if your test shows you to be HIV positive, this means that:
  - You may be able to make changes to your lifestyle which will improve your quality of life for a longer time
  - You will in all likelihood eventually develop symptoms that are related to AIDS and eventually will develop AIDS. At present these symptoms can be treated somewhat, but cannot be cured
  - You may need to change your sexual behaviour in order to avoid infecting other persons
  - Your result will be treated with confidentiality, but should it become known you might suffer discrimination in obtaining work, insurance, and medical care
- 5. A negative test result is not an absolute guarantee that you have not been infected; you could still be in the window period.

Note: In the case of a minor or an incompetent adult, the consent of a parent, legal guardian, or other surrogate must be obtained in most countries. A separate procedure is recommended for minor children.



#### **HIV Infection and HIV-Positive Mothers**

Women should know their HIV status before becoming pregnant if possible. Women who know they are HIV positive SHOULD NOT become pregnant if at all possible. Women who are HIV positive are in danger of passing on the HIV virus to their baby (approximately 30-50% in Africa). All mothers who give birth to babies pass on all of their **antibodies** to the baby for the first few months after the baby is born. This is God's way of helping the baby in its first months to have a strong immune defence system so it can stay healthy.

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TEST 16B

**TEST** 

16A

An HIV-positive mother will pass on her **antibodies** to her baby and, if tested, that new baby will test **HIV positive.** However, an HIV positive test result in a newly born baby whose mother is HIV positive may mean the following:

- TEST 16
- 1. That the baby ONLY has the mother's antibodies for the first few months until the baby develops its own immune defence system and its own antibodies to defend it. This baby DOES NOT REALLY HAVE THE HIV VIRUS in its body...just the mother's antibodies for the first few months. Although this baby is at first testing HIV positive, it is not really HIV positive. This baby will after some months (usually within six months from birth, but can go as long as up to eighteen months old and rarely a bit longer) will convert to HIV-negative status. This will confirm that this baby never actually had the virus in its body. It only had the mother's antibodies.



2. That the baby truly has the HIV virus in its body from the HIV+ mother either while still in the womb, during birth, or after birth from breastfeeding (from the HIV-infected body fluid milk of the mother). This baby is indeed HIV positive and about 30-50% will have the virus. 50-70% will at first only have the mother's antibodies but will not have the HIV virus in their body.



For the newborn baby (within the first year) it can be very difficult to know the true HIV status. Sufficient time must pass to see if the baby actually has the HIV virus or whether he/she is testing positive from the mother's antibodies helping the immune systems in the first few months.



(Note: Christians believe and know the power of God, the Creator of life, to heal all manner of diseases and illnesses, including HIV and AIDS. HIV-infected mothers should be encouraged to pray for healing for their babies before and after birthing, should they become infected. Prayer for healing is the Biblical and the first option for Christians when ministering to persons living with HIV/AIDS. However, sometimes ill-informed Christians have wrongly claimed healings of HIV-positive babies after they have converted from an HIV-positive status to one of HIV-negative, not understanding that some these babies will convert to an HIV-negative status anyway. The authors of this manual believe that Christian ministries should follow the pattern of Jesus when verifying healings. Jesus told those He healed to show themselves



to the priest of His day. They were equal to the medical physicians of our day. Before claiming healings from HIV/AIDS, it is wise to verify all testimonials with a medical doctor.

#### **HIV Positive Minor Children**

A baby's or child's HIV status cannot be known by looking at him or her. The small baby's status can only be known for sure once it is old enough for its body to sort out its own immune system and antibodies. An older child's HIV status can only be known in the same way as an adult's....by receiving an HIV test. If a child is found to be HIV positive, the parents or guardians must determine what is best for that child in all considerations. This includes whether or not the status of that HIV positive child should be told to others, and to the child. Some parents have found it helpful to tell the understanding HIV-positive child, at a specific stage or age, of his/her status. Others have found it wise not to tell the child. Some reasons for telling an understanding child his/her HIV status might be:

- So the child is prepared for illness that may come and not go away
- So the child can take better care of his/her body and thus live a longer, quality life.
- So the child would understand should he/she be in a situation where he/she could possibly infect another child (e.g. fresh blood from a play injury, etc.)

Parents must give careful consideration, after informed counselling and with much prayer, on telling a minor child that he/she is HIV infected, and how that infection occurred. It is wise to seek advice from your medical doctor and pastor on this issue.

### **HIV/AIDS PERSONAL RISK TEST**

Please answer ONLY "yes" or "no" to the questions below to help assess possible personal risk to HIV infection.

- 1. Have you or any sexual partner ever had sex with anyone else in the last ten years?
- 2. If married in the last ten years, were you and your spouse married without each having an HIV test?
- 3. Have you ever been exposed to blood, blood products, or any body fluids for medical, accident, or any other exposure where non-sexually contracted HIV infection may have been possible?
- 4. Have you or any sexual partner ever molested, sodomised, and/or raped In the last ten years?
- 5. Have you or your sexual partner ever been exposed to a possible infected needle, blade or other infected instrument in the past ten years, either for body piercing, tattooing, drug use, circumcision, medical reason, etc.?
- 6. Have you had a blood transfusion in the last ten years, particularly in the early 1980s?
- 7. Have you ever been under the influence of a mind-altering substance (drugs, alcohol, etc.) where you may have been put at risk for HIV infection and have little/no recollection? Note: In the majority of rape cases, alcohol or drug abuse is involved.
- 8. Have you possibly been exposed to HIV in the last ten years by acts of midwifery, surgery, dental care, health care, etc. where possible low risk infection might have occurred?

If you answered "YES" to any of the above questions, you may be at risk for HIV infection and/or other STDs (sexually transmitted diseases). You are strongly advised, for your own well-being, to get tested for HIV at a medical facility as soon as you can. It is always better to KNOW your HIV status so you can avoid infecting someone else, can treat all symptoms early, and can adapt any lifestyle changes necessary for quality and prolonged life.