Action AIDS

What is AIDS?

A - Acquired: because it's a condition one must acquire or get infected with; not something transmitted through the genes
I - Immune: because it affects the body's immune system, the part of the body which usually works to fight off germs such as bacteria and viruses
D - Deficiency: because it makes the immune system deficient (makes it not work properly)
S - Syndrome: because someone with AIDS may experience a wide range of different diseases and opportunistic infections

AIDS (acquired immune deficiency syndrome) is a condition caused by a virus called HIV. This virus attacks the immune system, the body's "security force" that fights off infections. When the immune system breaks down, you lose this protection and can develop many serious, often deadly infections and cancers. These are called "opportunistic infections (OIs)" because they take advantage of the body's weakened defenses. You have heard it said that someone "died of AIDS." This is not entirely accurate, since it is the opportunistic infections that cause death. AIDS is the condition that lets the OIs take hold.

What is HIV?

HIV is the virus that causes AIDS.

H - Human: because this virus can only infect human beings.
I - Immuno-deficiency: because the effect of the virus is to create a deficiency, a failure to work properly, within the body's immune system.
V - Virus: because this organism is a virus, which means one of its characteristics is that it is incapable of reproducing by itself. It reproduces by taking over the machinery of the human cell.

HIV is a virus, like the flu or cold. A virus is really nothing but a set of instructions for making new viruses, wrapped up in some fat, protein and sugar. Without living cells, a virus can't do anything – it's like a brain with no body. In order to make more viruses (and to do all of the other nasty things that viruses do), a virus has to infect a cell. HIV mostly infects T-cells, also known as CD4+ cells, or T-helper cells. These cells are white blood cells that turn the immune system on to fight disease. Once inside the cell, HIV starts producing millions of little viruses, which eventually kill the cell and then go out to infect other cells. All of the drugs marketed to treat HIV work by interfering with this process. There, that wasn't so hard, was it?

An HIV-positive person receives an AIDS diagnosis after developing one of the CDC-defined AIDS indicator illnesses. An HIV-positive person can also receive an AIDS diagnosis on the basis of certain blood tests (CD4 counts) and may not have experienced any serious illnesses. A positive HIV test does not mean that a person has AIDS. A diagnosis of AIDS is made by a physician according to the CDC AIDS Case Definition.

Over time, infection with HIV (Human Immunodeficiency Virus) can weaken the immune system to the point that the system has difficulty fighting off certain infections. These types of infections are known as opportunistic infections.

Many of the infections that cause problems or that can be life-threatening for people with AIDS are usually controlled by a healthy immune system. The immune system of a person with AIDS has weakened to the point that medical intervention may be necessary to prevent or treat serious illness.

AIDS Fact file

- **5 die of AIDS every minute**
- **42 million infected**
- **2002 – 5 million infected**
- **37 million adults living with AIDS**
- **2.5 million under 15 living with AIDS**
- **2003 – 5 million newly infected**
- **2003 – 3 million AIDS deaths**

What are the Symptoms of HIV?

Primary HIV infection is the first stage of **HIV disease**, when the virus first establishes itself in the body. Some researchers use the term acute HIV infection to describe the period of time between when a person is first infected with HIV and when antibodies against the virus are produced by the body (usually 6- 12 weeks).

Some people newly infected with HIV will experience some "flu-like" symptoms. These symptoms, which usually last no more than a few days, might include fevers, chills, night sweats and rashes (not cold-like symptoms). Other people either do not experience "**acute infection**," or have symptoms so mild that they may not notice them.

Given the general character of the symptoms of acute infection, they can easily have causes other than HIV, such as a flu infection. For example, if you had some risk for HIV a few days ago and are now experiencing flu-like symptoms, it might be possible that HIV is responsible for the symptoms, but it is also possible that you have some other viral infection.

n "AIDS." The median time to receive an AIDS diagnosis among those infected with HIV is 7-10 years.

History :-

Although the new epidemic that would eventually be named Acquired Immune Deficiency Syndrome (AIDS) was first recognized as a disease in 1981, we now know that human immuno-deficiency virus (HIV) probably jumped from chimpanzees to humans during the late 1600s. The first actually confirmed death from HIV was in 1959, when a man died in the Congo in Africa. This was confirmed by analyzing samples of his blood in a recent test.

Treatment :-

Treatment with combinations of AIDS drugs can keep people with HIV from getting AIDS.

In clinical studies, where everybody gets state-of-the art treatment and very regular medical exams, the drugs work for the vast majority of people. In the real world, some AIDS doctors say, the drugs fail in about half of their patients.

Why? Not all AIDS drugs work for all people. It's absolutely essential to take the drugs at the right time of day, every single day. Sometimes the drugs' side effects -- or simple human nature -- make this very hard to do. And because HIV is constantly mutating, no two people are infected with exactly the same virus.

Treatment must be planned and adjusted for every individual person with HIV. When to start treatment is a big question. Everybody agrees that starting aggressive treatment in the early days after infection -- the stage of acute HIV infection -- is most effective. But most people don't find out they have HIV until the stage of chronic HIV infection, when the virus has a firm hold on the body. There's no hard and fast rule about when to start treatment for such patients.

Most AIDS/HIV doctors now recommend holding off on treatment until a person's immune system starts to fail. This decision is based on the CD4 T-cell count, the best measure of HIV disease. Another factor is how much HIV is in the blood -- a measure called viral load.

When treatment begins, the decision on which anti-HIV drugs to use is crucial. New tests can tell which drugs will work best on the HIV infecting an individual patient.

There are several types of anti-HIV drugs. Because HIV mutates so quickly, it soon is able to resist any single treatment. That's why doctors use combinations ("cocktails") of anti-HIV drugs. Virus that's resistant to one drug gets killed by another. Over time, even this strategy isn't always enough, and virus resistant to multiple drugs may appear. At this point, a doctor will switch to another drug combination. While there are many AIDS drugs, the possibilities are not endless. Researchers are working hard to find new ways to treat patients who have run through several different combination treatments.

Diagnosis :-

The two most popular tests used to detect HIV through the presence of HIV antibodies are:

- ELISA
- Western blot

These tests are very accurate because they return few false negatives. Out of one million people, approximately four people would be incorrectly declared as not infected

with HIV. One drawback is that during the 14 week period after infection that it takes antibodies to develop, the tests will return a negative result. The official definition of "HIV-Positive" is registering positive twice on the ELISA and once again on the Western blot

Prevention :-

AIDS is a terrible disease, but there are ways to prevent the spreading of this illness. AIDS cannot be spread in the following ways:

- Breathing the same air as people with AIDS
- Eating food prepared by people with AIDS
- Shaking hands with or hugging someone who has AIDS
- Sharing Bathrooms with someone who has AIDS
- Sitting next to someone who has AIDS
- Insect bites, giving blood, swimming pools

Stop Aids !!!

You can however become infected with AIDS through:

- sexual intercourse
- contact with an infected persons blood
- through blood transfusions
- an infected, pregnant woman to her baby
- shared drug needles

To prevent the chances of dispersing AIDS through transfusions, all blood that is received from donors is tested for HIV. To prevent spreading through sexual intercourse, it is suggested that latex condoms should be worn. Often times, drug needles are shared which is the most common way that AIDS is contracted. There is almost no way of preventing the spread of AIDS from a mother to a baby.

Together we can make a difference…after all…its possible…