

The Human Immunodeficiency Virus (HIV), which causes AIDS, is easily transmitted through blood transfusions. In fact, the chances that someone who has received a transfusion with HIV blood will himself or herself become infected are estimated to be over

Blood transfusions will always carry certain risks, but HIV transmission through blood transfusion can virtually be prevented. One can do this by setting up and maintaining a safe blood supply and by using the blood appropriately. One should always ensure that the blood is screened for the presence of diseases causing viruses, bacteria, or other microorganisms, or for the presence of anti bodies produced against these agents.

All donated blood must be screened for HIV, as well as for hepatitis B and syphilis (and hepatitis C where ever possible). In addition, both doctors and patients must be aware that blood should be used only for necessary transfusion. While it is important to take necessary precautions, we also must keep in mind that if each individual is to donate blood once a year voluntarily, the total requirement of blood worldwide would be met.

Transfusion

Is it safe to have blood transfusion?

Blood transfusion saves millions of lives each year, but only if safe blood supply is guaranteed. Receiving transfused blood has increased the risk to being affected by HIV and a number of other infections. Diseases such as hepatitis B, hepatitis C and several Sexually Transmitted Diseases (STDs) can also be transmitted through transfusion.

Can I receive my own blood?

Your own blood is the safest blood for your transfusion needs. A transfusion, after all, is a transplant of sorts, but instead of a kidney or liver, blood is the tissue a patient receives. When transfused with your own blood, you are not exposed to infectious disease and you are the perfect match. Your doctor will also carefully consider the benefits and affects your blood donations may have on you.

How do I ensure that the blood is actually HIV free?

The process of testing blood to see if it contains infectious agents capable of being transmitted to those who received the blood is known as screening. Majority of tests detect the presence of anti bodies to HIV and not the virus itself. Although HIV tests are very sensitive, there is a window period. This is the period between the onset of infection with HIV and the appearance of detectable anti bodies to the virus. In the case of most sensitive HIV tests the window period is about three weeks.

Voluntary Donation of Blood

Who can donate blood?

Every healthy individual with no known infection /disease can donate blood. It should still be done after having screened yourself. The donor should be in good health and should be feeling well on the day they donate. He/she should weigh at least 110 lbs. (50 kg) or more, not on any prescribed medication that may affect the donor or recipient. There should be a gap of at least 56 days between donations.

How often can I donate blood?

Donating blood over thrice a year is not recommended. Excessive donation results in blood becoming substandard, for instance lacking in iron. It can also affect the donor's health.

Where can I donate blood?

One can donate blood at any licensed blood bank and blood donation camp.

Why should I donate blood?

The safest type of blood donor is the voluntary, unpaid donor. Such donor gives out of altruism, and is not under pressure to donate blood. On the whole, such donors are more likely to meet the criteria for low risk donors. And they are also more likely to be willing to donate on a regular basis and at properly spaced intervals. This is important in maintaining a sufficient stock of blood.

How will it be used?

Blood is often used as a replacement of the quantity given to an individual by a medical practitioner. In this system, families of people needing a transfusion are asked to donate the same quantity as that given to their relative and this blood may be used directly, where compatible, or else put into the general pool.

Is blood donation harmful?

No, if it is at properly spaced intervals and is donated at licensed blood banks/camps it is not harmful. Many donors have given blood over 50 times, up to four times a year, without any harm to their health. If you are healthy, you can give blood every 56 days.

Can you get HIV by donating blood?

It is safe to give blood. You cannot contract any diseases through blood donation if the needle and other clinic materials used to take blood are new, sterile and used only once. If you are donating at licensed banks, these safety conditions will be definitely adhered to. The materials used are disposed after one use.

Rational Use

When?

Doctors and other medical staff should be educated to avoid prescribing inappropriate transfusion. Blood substitutes should be used only when it is appropriate. Simple alternatives to blood, such as crystalloids or colloids, will not transmit infection and can be obtained at a fraction of the cost of whole blood.

One of the reasons, which make blood supply unsafe is shortage. This shortage can be addressed to a great extent by transfusing blood components instead of whole blood. Wherever whole blood is not needed, the appropriate component should be used.

The underlying reasons for blood transfusion should be addressed. A condition for which blood transfusions are often given is chronic anemia, which results from the lack of red blood cells that carry oxygen to the tissues. Chronic anemia can be caused by malnutrition, slow loss of blood and infection such as malaria. If the root cause of chronic anemia is attacked, we can manage the condition. Another condition where blood is often needed is childbirth-related emergencies. By taking proper care of women before and during delivery, we can decrease the need for transfusion

Avoid unnecessary transfusion

Transfusion is not always necessary or appropriate. Avoid using single-unit transfusions

Transfusion increases the risk of transmitting HIV, especially in places where there is no adequate screening of blood. Apart from that, it creates an unavoidable shortage in blood supply. This encourages professional donors to become more active, reducing the safety of the supply.

What is it used for?

Blood donations are used for a number of purposes:

- Red blood cells are transfused when an illness leads to anemia.
- Platelets are needed where bone marrow cannot work properly for example, anti-cancer treatment, or in patients who cannot produce normal platelets to clot the blood.
- White blood cells are important to help patients whose resistance to serious infection is low, such as during cancer treatment.

- Plasma is used for critically ill patients who have lost a large volume of blood and need a replacement of the full range of proteins contained in plasma.
- Blood is used in cases of acute blood loss, such as after accidents or during an operation

Risks

All blood donations are tested thoroughly for certain viruses, but it is not always possible to detect them at the earliest stage of the infection. Very occasionally, viruses such as HIV, hepatitis B and C can take several weeks after someone is infected to show up in tests. This means that blood that does not show any signs of infection could still pass on a disease.

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