

What Is the Blood

The fluid that circulates in the heart , arteries , capillaries , and veins of a vertebrate animal carrying nourishment and oxygen to and bringing away waste products from all parts of the body

What Is a Blood Transfusion?

A blood transfusion is a safe , common procedure in which blood is given to you through an intravenous (IV) line in one of your blood vessels . Blood transfusions are done to replace blood lost during surgery or due to a serious injury. A transfusion also may be done if your body can't make blood properly because of an illness .

How is done

During a blood transfusion, a small needle is used to insert an IV line into one of your blood vessels . Through this line , you receive healthy blood . The procedure usually takes 1 to 4 hours , depending on how much blood you need . Blood transfusions are very common.



Important Information About Blood

The heart pumps blood through a network of arteries and veins throughout the body. Blood has many vital jobs . It carries oxygen and other nutrients to your body's organs and tissues . Having a healthy supply of blood is important to your overall health .

Blood is made up of various parts , including red blood cells , white blood cells , platelets , and plasma . Blood is transfused either as whole blood (with all its parts) or , more often , as individual parts .



Blood Types

Every person has one of the following blood types : A , B , AB , or O . Also , every person's blood is either Rh-positive or Rh-negative . So , if you have type A blood , it's either A positive or A negative .

The blood used in a transfusion must work with your blood type . If it doesn't , antibodies (proteins) in your blood attack the new blood and make you sick . Type O blood is safe for almost everyone. About 40 percent of the population has type O blood. People who have this blood type are called universal donors. Type O blood is used for emergencies when there's no time to test a person's blood type . People who have type AB blood are called universal recipients . This means they can get any type of blood .

If you have Rh-positive blood , you can get Rh-positive or Rh-negative blood . But if you have Rh-negative blood , you should only get Rh-negative blood . Rh-negative blood is used for emergencies when there's no time to test a person's Rh type .

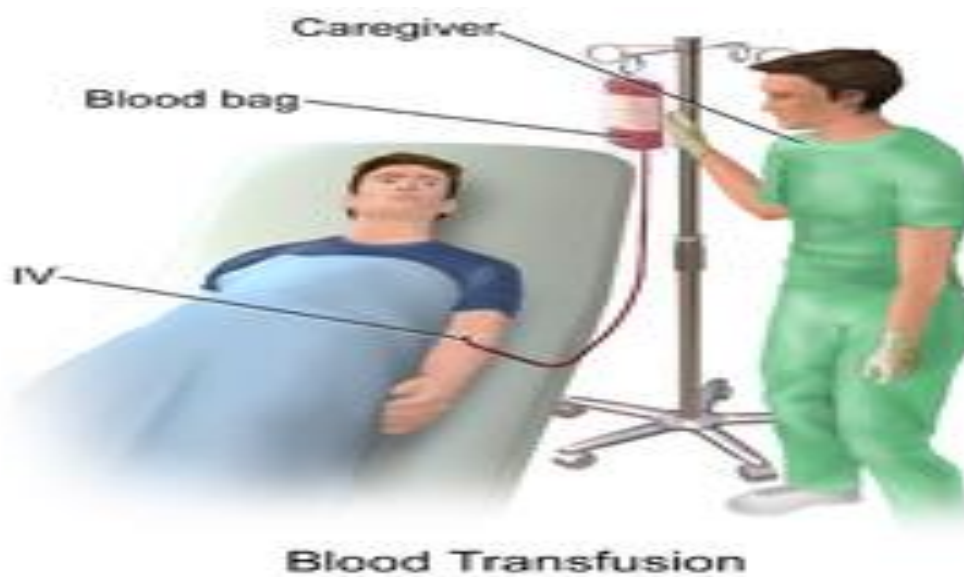
Blood Banks

Blood banks collect, test, and store blood. They carefully screen all donated blood for possible infectious agents, such as viruses , that could make you sick . Blood bank staff also screen each blood donation to find out whether it's type A , B , AB , or O and whether it's Rh-positive or Rh-negative . Getting a blood type that doesn't work with your own blood type will make you very sick . That's why blood banks are very careful when they test the blood .

Who Needs a Blood Transfusion

Blood transfusions are very common .

1. Many people who have surgery need blood transfusions because they lose blood during their operations. For example, about one-third of all heart surgery patients have a transfusion.
2. Some people who have serious injuries such as from car crashes, war , or natural disasters need blood transfusions to replace blood lost during the injury
3. Some people need blood or parts of blood because of illnesses . You may need a blood transfusion if you have : -
 - A severe infection or liver disease that stops your body from properly making blood or some parts of blood .
 - An illness that causes anemia , such as kidney disease or cancer . Medicines or radiation used to treat a medical condition also can cause anemia . There are many types of anemia , including aplastic , Fanconi , hemolytic , iron-deficiency , and sickle cell anemias and thalassemia (thal-ah-SE-me-ah) .
 - A bleeding disorder , such as hemophilia or thrombocytopenia .



What To Expect Before a Blood Transfusion

Before a blood transfusion, a technician tests your blood to find out what blood type you have (that is , A , B , AB , or O and Rh-positive or Rh-negative) .

The blood type used in your transfusion must work with your blood type . If it doesn't , antibodies (proteins) in your blood attack the new blood and make you sick . Some people have allergic reactions even when the blood given does work with their own blood type . To prevent this , your doctor may prescribe a medicine to stop allergic reactions .

Most people don't need to change their diets or activities before or after a blood transfusion . Your doctor will let you know whether you need to make any lifestyle changes prior to the procedure .

What To Expect After a Blood Transfusion

After a blood transfusion , your vital signs are checked (such as your temperature , blood pressure , and heart rate) . The intravenous (IV) line is taken out . You may have some bruising or soreness for a few days at the site where the IV was inserted . Your doctor will let you know about signs and symptoms to watch for and report .

History of Transfusions



Blood transfused in humans since mid-1600's

1828 – First successful transfusion

1900 – Landsteiner described ABO groups

1916 – First use of blood storage

1939 – Levine described the Rh factor .