

Learn the ABO's of Blood Donation!

Donating blood is an activity that creeps some people out. Sticking a needle in your arm? Drawing out the substance that keeps us alive? No thank you. However, donating blood is one of the simplest ways to save a person's life. Every minute someone needs a blood transfusion and one donation from you could help as many as three people.

Though the donation process is simple, not everyone can give blood. To be eligible, you must be at least 17 years old and weigh 100 pounds. There is also a brief examination before you give blood, to ensure that your iron levels are normal and that you have no diseases in your blood. Preparing for donation is simple: drink water, wear something comfortable—with short sleeves, eat something rich in iron, bring your ID and just relax (The American National Red Cross, 2010). The actual donation takes about ten minutes and your donation will amount to one pint of blood. After you donate, make sure to help yourself to refreshments and drink water. Avoid excessive exercise for the rest of the day and allow your body to recover and replenish its system.

Another way that you can help people is by donating plasma. Blood is made up of three substances: red blood cells, white blood cells, and plasma. Plasma is the largest part of blood, about 55% and contains water, salts, enzymes, antibodies and other proteins (Donating Plasma.org, 2010). Plasma is the source of proteins that combat some life-threatening genetic diseases, neurological and autoimmune disorders. Donating plasma is similar to donating blood, however it takes much longer as the plasma must be sorted from your blood. A first donation can take up to three hours while additional donations will only be about one and a half hours. A person can donate two times in a seven day period, with at least two days between donations as plasma only takes 24 hours to replenish.

Although blood looks the same no matter who gives it, there are actually 8 different types of blood out there. Though it may not seem important, matching blood types correctly can save a person's life. If a person is not matched correctly, their antibodies can attack the new blood—meaning that your immune system works to get rid of the foreign blood.

There are four blood groups which are grouped based on the presence or absence of certain antigens. Antigens are any compound which is foreign to the body and stimulates the creation of an antibody (Answers Corporation, 2010). Antibodies are the proteins which work with the immune system to protect your body (Answers Corporation, 2010). Group A only has A antigens on red blood cells, Group B only has B antigens, Group AB has both A and B antigens, and Group O has neither A nor B antigens (The American National Red Cross, 2010). The opposite is true in plasma: Group A has B antibodies, Group AB has neither antibodies, and so on. There is also a third antigen, called the Rh factor, which can be present (positive) or absent (negative).

A person has to be very careful about transfusions so that the right blood type can be matched. If you have O- blood, you are the universal donor—meaning that anyone can accept your blood. If you have AB+ blood, you are the universal recipient—meaning that you can receive any type of blood and have a safe transfusion. A blood can only be given to someone with A blood or AB blood. B blood can only be given to someone with B blood or AB blood. AB blood can only be given to someone with AB blood (The American National Red Cross, 2010).

O+ is the most common blood type while AB- is the least common. Blood type is determined through genetics; by knowing the blood types of both parents, you can predict what blood type the child will have. After your donation, make sure to have the Red Cross send you your blood type—it could save someone's life.

References:

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