About Blood

Blood is unique. It is made up of four components: red cells, platelets, white cells and plasma. When you donate "whole blood," you provide all of these components. However, when you make a component donation, also called an aphaeresis (a-fur-EE-sis) donation, you donate one or more of these specific components and receive back "the rest" of your blood. Aphaeresis donations are generally better for patients because patients can receive the blood cells or products they need, from a smaller number of donors, reducing the likelihood of an adverse reaction. Each blood component has a special purpose:

Red cells

Red cells are made in bone marrow. They contain a protein called hemoglobin that attaches to oxygen and allows it to be transported to all body tissues. Red cells are what give blood its red color. There are about a billion red cells in two or three drops of blood. Without enough red cells, you would become very weak. Red cells carry oxygen and can be needed by many different patients including:

- Patients with sickle cell disease
- Premature babies
- Patients experiencing post-surgical complications

Platelets

Platelets are made in bone marrow and help your blood to clot. They help heal the cuts we can see, and the damage to the blood vessels inside our bodies that we can't see. Without enough platelets, you would risk bleeding internally and being unable to stop any external cuts from bleeding. Platelets help blood clot and can be needed by many different patients including people:

- Having heart surgery
- Experiencing uncontrolled bleeding
- Going through chemotherapy

Plasma

Plasma is the fluid portion of blood. It contains proteins and salts, and it helps to carry not only blood cells, but also enzymes, hormones and nutrients. It also affects your blood pressure. Without sufficient amounts of plasma, important blood cells would not be able to circulate throughout your body. Plasma carries nutrients and cells throughout your body. Plasma can be needed by many different patients including burn victims, those with liver disease or hemophilia.

White cells

White cells are made in bone marrow and help you to fight disease. Without enough white cells, you wouldn't be able to battle off disease –– even the common cold.