



THE NEED



MARROW & BLOOD CELL DONATION



APHERESIS DONATION



BLOOD DONATION



CORD BLOOD DONATION



ORGAN & TISSUE DONATION

WHY ARE ORGAN AND TISSUE DONORS NEEDED?

There are currently more than 84,000 Americans on a waiting list for a lifesaving organ transplant. Every 13 minutes another name is added to the national organ transplant list. Sadly, an average of 17 people die every day while waiting, simply because there are not enough organs available for transplant. Despite numerous legal initiatives and the continuing advances in medical technology, the donor shortage remains a national public health crisis.

WHAT ORGANS AND TISSUES CAN BE DONATED?

One single donor can save or enhance the lives of more than 50 people. Organs that can be donated include heart, kidneys, lungs, pancreas, liver, and intestines. Tissues that can be donated include corneas, skin, tendons, bone and heart valves.

WHO CAN DONATE?

Organ and tissue donors range from newborns to senior citizens. Most donors are people in good health who die suddenly, possibly after an accident, and are declared "brain dead." In this condition, brain function has permanently ceased but the heart and lungs continue to function

through the use of artificial life supports. Individuals can also donate specific organs while they are still alive. These "living donors" are able to donate a kidney or a portion of their liver or lung, often to a relative.

HOW CAN YOU BECOME A DONOR?

It is important for you to know how to make sure that your decision to be a donor is carried out. First, visit www.donatelife.net. The laws that govern donation vary, and [donatelife.net](http://www.donatelife.net) will help you learn how to become a donor in your state. Next, tell your family of your decision to donate. Even if you carry a signed donor card, are registered on your state's donor registry or have a donor designation on your driver's license or state identification card, your decision to donate, along with your medical history, is discussed with your family. At that point, your family is going through a time of great emotional turmoil and grief. Make their decision easier by letting them know in advance of your wishes.

For more information about organ and tissue donation, please visit www.donatelife.net or call 800-355-7427

In Spanish, visit www.donevida.org or call 800-485-VIDA (8422)



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CORD BLOOD DONATION

WHAT IS CORD BLOOD?

Cord blood is found in the umbilical cord and placenta after a baby is born. Cord blood is rich in blood-forming cells and is important for transplantation because the cells are capable of maturing into red blood cells, white blood cells, and platelets.

WHY DONATE A BABY'S UMBILICAL CORD BLOOD?

Healthy blood-forming cells found in the cord blood can offer another transplant option to treat people diagnosed with leukemia and other life-threatening diseases. After birth, the cells are collected from the umbilical cord and frozen for future use.

WHY ARE MORE MINORITY CORD DONATIONS NEEDED?

Even with more than 30,000 cord blood units listed (as of April 2004), some patients are unable to find a match because of the rarity of their tissue traits. Because tissue traits are inherited, a patient's most likely match is someone of the same heritage. Some tissue traits are more likely to be found among people of a particular racial or ethnic heritage. That is why a pressing need remains for more cord blood donations from American

Indian and Alaska Native, Asian, Black and African American, Hispanic and Latino, Native Hawaiian and Other Pacific Islander, and multiple-race women.

IS THERE A FEE TO DONATE CORD BLOOD?

There is no cost for donating. Public cord blood banks will cover the cost of testing and storing the cord blood unit.

WHERE CAN I DONATE CORD BLOOD?

Any woman who is at least 18 years old (16 in some locations), in general good health and lives in a community where cord blood donation is available may be able to donate her baby's cord blood. Because cord blood donation is still a growing field, not all hospitals are prepared to receive a donation at this time.

Contact your cord blood bank before you deliver, ideally by your 34th week of pregnancy. After your baby's birth, the umbilical cord blood is collected – posing no risk to you or your child. The donated cord blood is frozen and stored at the cord blood bank for future use for any patient in need.

For more information about cord blood donation please contact the NMDP:

800-MARROW2 or visit **www.marrow.org**



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BLOOD DONATION

WHY SHOULD YOU DONATE BLOOD?

Blood is a vital lifesaving force and has been defined as a "national resource." Blood has a limited shelf life so the supply must be constantly replenished. Supply and demand fluctuate as well, which can create life-threatening shortages. Compatibility is also an issue. There may be a shortage of a specific type of blood. Because O negative can be used by all blood types and is often used in emergency situations, O negative usage exceeds the percentage of O negative people in the population.

People with type A positive can receive blood from A or O positive or negative individuals. Type O positive can only receive O positive or O negative. Type B negative is the second least common blood type. Patients with B negative blood can receive only B negative or O negative blood. Type AB negative is the least common blood type. Patients of this type can receive blood from donors of all negative blood types.

HOW IS WHOLE BLOOD USED?

Whole blood is rarely transfused. When a pint of blood is collected, it is separated into an average of three components – plasma, red blood cells and platelets – and patients only receive the components they need to survive.

WHAT IS PLASMA?

Plasma is the fluid portion of blood and can be frozen for up to one year. Among those who most frequently need plasma are burn patients and trauma patients.

WHAT ARE RED BLOOD CELLS?

Red blood cells carry oxygen and can be refrigerated for up to 42 days. Patients who need transfusions of red blood cells include anyone who experiences blood loss through surgery or trauma injury or has a chronic anemia.

WHAT ARE PLATELETS?

Platelets cause the blood to clot and are the most delicate of all components, lasting only five days after they are donated. Patients who need platelets are commonly those with leukemia, or other cancer patients undergoing chemotherapy.

WHAT BLOOD TYPE ARE YOU?

<u>Blood</u>	<u>Occurrence</u>	<u>% of population</u>
O+	1 in 3	38
A+	1 in 3	34
B+	1 in 11	9
AB+	1 in 33	3
O-	1 in 14	7
A-	1 in 16	6
B-	1 in 50	2
AB-	1 in 100	1

For more information about donating blood please visit: www.aabb.org



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APHERESIS DONATION

APHERESIS

Today, the treatment of choice for all patients needing blood is to transfuse only the blood components required by the patient. This is called "component therapy." Apheresis gives donors the ability to donate only the component needed.

Apheresis means separating the blood into components as it is being collected from the donor. It is the most efficient collection of a specific component – platelets, plasma, or red cells – needed by a patient. Platelets help patients with bleeding disorders caused by leukemia and cancer treatment, or open-heart surgery. Plasma helps trauma and burn patients, transplant recipients and patients with clotting disorders. Red blood cells are transfused to patients undergoing surgery or in trauma, and for people who have chronic blood disorders such as sickle cell anemia.

HOW APHERESIS HELPS

Apheresis allows more blood components to be collected from our shrinking donor population. When a person donates with apheresis, he or she can give enough of a blood component to provide one or more transfusions for a patient. For instance, one apheresis donor can give two units of red blood cells, instead of one.

Apheresis also reduces the number of donors that one patient is "exposed to" with a transfusion. This reduces the risk of disease and viral exposure for the patient.

ALL BLOOD TYPES ARE USEFUL

Some people feel that if they have a common blood type, they are not needed as donors of blood or apheresis. Keep in mind that patients have all blood types. For this reason, a steady supply of blood of all types is constantly needed to maintain an adequate blood supply for the community.

Platelets are always in demand and people of any blood type with high platelet counts (the amount of platelets in their system) make ideal platelet donors. Donors with type O blood make ideal red cell donors. Although O is a common blood type, it can be transfused to patients of all blood types and is critical for use in emergency situations when a patient needs an immediate transfusion and there is not time to type that patient. People with type AB blood (less than 4 people in 100) are universal plasma donors; their plasma can safely be transfused to patients of any blood type.

HOW DO YOU DONATE BY APHERESIS AND WHAT IS INVOLVED?

During an apheresis donation, your blood flows through sterile, disposable tubing into a spinning bowl. The heavier red cells are forced to the outside of the bowl. The lighter plasma and platelets stay near the center. Once separated, the needed component(s) is transferred by automated equipment into blood bags. The other components are safely returned to the donor. The tubing and bowl "kit" used to collect the components are only used once and then discarded. A platelet donation takes 90 minutes to two hours, while a red cell or plasma donation lasts 40 minutes to one hour.

For more information about donating blood please visit: www.aaBB.org
Call your local blood center or aaBB: 866-FROM-YOU



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MARROW & BLOOD CELL DONATION

WHAT IS MARROW?

Marrow is the soft tissue inside the bones that produces the blood forming cells that transplant patients need to make healthy new marrow. These immature cells can develop into any of the cells present in the blood stream: red blood cells, white blood cells and platelets. The three sources for blood-forming cells are marrow, peripheral (circulating) blood, and blood collected from the umbilical cord after a baby is born.

WHO NEEDS MARROW AND BLOOD CELL TRANSPLANTS?

Marrow and blood cell transplantation has become the only real "cure" for many diseases. Each year, 30,000 new patients are diagnosed with leukemia, anemia, immune system disorders, and a number of other life-threatening diseases. Only 30 percent of these patients will find a matched donor in their families. The other 70 percent must search for an unrelated donor.

WHY ARE MORE MINORITY DONORS NEEDED?

Marrow and blood cell transplants require matching certain tissue traits of the donor and patient. Because these traits are inherited, a patient's most likely match is someone of the same heritage.

Although more minority patients are finding donors for their transplants, they are still less likely than Caucasians to identify a matched donor. Minority patients will continue to benefit from the addition of more American Indian and Alaska Natives, Asians, Black

and African Americans, Hispanic and Latinos, Native Hawaiians and Other Pacific Islanders to the Registry.

As more donors from these communities join the Registry, patients of every racial and ethnic background will have a better chance of finding a matched donor for transplantation.

WHAT IS THE NATIONAL MARROW DONOR PROGRAM?

The NMDP helps to make life-saving marrow and blood cell transplants possible by connecting patients, physicians, donors and researchers to the resources they need.

The NMDP:

Manages the world's largest and most diverse donor Registry—a listing of more than 5 million volunteers and 46,000 cord blood units to help any patient in need.

Works through an impressive international Network of leading hospitals and blood centers in the U.S. and 35 countries around the world.

Facilitates more than 2,600 transplants annually, and has provided more than 20,000 patients a second chance at life.

HOW DOES A PERSON BECOME A VOLUNTEER DONOR?

Anyone between the ages of 18-60 and in good general health can become a volunteer donor.

For more information about marrow and blood cell donation, please contact the NMDP:

800-MARROW2 or visit **www.marrow.org**



THE NEED

THE NEED FOR WHOLE BLOOD

Less than 5 percent of the eligible population donates blood in the U.S. each year. Blood centers across the U.S. have an increasingly difficult time maintaining an adequate supply. Blood shortages are occurring at a growing rate as blood donations decline and blood transfusions increase.

One out of every 10 people entering a hospital needs blood. Blood is perishable and only lasts 42 days, so blood centers require a constant supply of donors.

THE NEED FOR MARROW AND BLOOD CELLS

Marrow and blood cell transplants are a life-saving treatment option for the more than 30,000 patients each year who are diagnosed with diseases of the blood and immune system, including leukemia, lymphoma and certain genetic disorders.

A marrow or blood cell transplant requires matching tissue types between a patient and a donor. These tissue types are inherited, but 70 percent of patients do not have a matched donor in their family. These patients must rely on the National Marrow Donor Program® (NMDP) to search for an unrelated volunteer donor. Through a diverse Registry of more than 6 million potential adult donors and 46,000 cord blood units, the NMDP provides a single point of access for all sources of blood cells used in transplantation.

All patients, but especially those of diverse backgrounds, will continue to benefit from the addition of adult donors of varied races and ethnicities to the Registry to help ensure the accessibility to all transplant treatment options.

THE NEED FOR CORD BLOOD

Umbilical cord blood represents one of the most exciting new strategies in transplantation, as it can offer another source of cells to treat people diagnosed

with diseases of the blood and immune system, including leukemia and other life-threatening diseases. The blood in the umbilical cord and placenta is unique because it contains large numbers of the types of cells used in transplantation. Collected after a baby's birth, cord blood collection poses no risk to the mother or her child.

THE NEED FOR APHERESIS

Apheresis means separating blood into components as it is collected. Donating the following specific component will help:

Plasma - trauma or burn patients, transplant recipients, and patients with clotting disorders

Red cells - surgery or trauma, patients with chronic blood disorders like anemia or sickle cell disease

Platelets - patients with bleeding disorders from leukemia, cancer therapy, or open heart surgery

It takes one apheresis donation to provide the equivalent dose of eight whole blood donations of platelets.

THE NEED FOR ORGAN AND TISSUE DONORS

Currently there are more than 92,000 Americans on transplant waiting lists, and though more than 28,110 transplants were performed in 2004, thousands still died while waiting for a lifesaving transplant.

More than 14,488 families said "yes" to donation last year, including more than 6,800 living donors.

As medical technology advances, the number of people awaiting a transplant will continue to increase. More donors are needed to help give these patients a second chance at life.