

SPECIAL
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JACKSONVILLE STATE UNIVERSITY

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**JSU-Red Cross
Blood Drive
December 2
Leone Cole**



GIVE... so more will live

BLOODMOBILE TOMORROW

Jax pledges 1,000 pints

JSU students and surrounding residents will join in a Red Cross campus blood donor drive this week which campaign leaders predict will make a major contribution to Red Cross Blood Program reserves.

The Bloodmobile visit will be held in Cole Auditorium on the campus from 10 a.m. to 7 p.m. Thursday, December 2.

Jax State Blood Drive leaders have set a goal of 1000 pints for this visit.

The Jax State drive comes only two days after a similar campaign at the University of Alabama in Tuscaloosa, which has been unable to equal JSU totals in the last two Bloodmobile visits to the rival campuses.

Knowledge that UAT Blood Program leaders increased their goal from 500 to 700 pints after learning of the big effort planned at Jacksonville has sparked school enthusiasm here.

"It will take a lot of work because UAT has more than twice as many students as we have, but we believe we can beat Alabama again," said Carl Hogan, JSU Blood Program chairman.

"We have the full support of the Student Government Association headed by Kwang Edeker, and the Student Nurses Association is both recruiting donors now and members will serve as volunteers Bloodmobile Day.

"We already have evidence that the community is behind us. The Jacksonville City Council, Jacksonville Jaycees and Jacksonville businessmen are all giving support.

"We believe that when area residents learn how much we need them, and how much their gifts of blood are needed by our hospitals, we'll have a lot of our fathers and mothers and friends

from the Jacksonville area giving blood with our students December 2."

An intensive newspaper, radio and television campaign is planned, including radio spots promised by Radio Station WLS of Chicago. WLS is favorite of nighttime listeners around the JSU campus, Hogan said.

"However," said Hogan, "we're relying heavily on personal contacts in obtaining advance pledges from our fellow students and neighbors that they will give blood Dec. 2.

"Our message to all is that your gift of blood is needed because first the Thanksgiving holiday weekend and now the approaching Christmas season are reducing Bloodmobile schedules.

"We're proud of the confidence that Red Cross Blood Program directors have shown in turning to Jax State at this particular

time. We intend to fulfill this vital community responsibility."

Red Cross donors receive a Blood Donor Card that guarantees the donor, spouse, minor children, parents, parents-in-law and grandparents and grandparents-in-law receive all the blood needed for medical treatment during the succeeding 12 months with no charge for the blood itself. Blood given through Red Cross is the gift of the donor to the patient who receives it.

Any person 18 to 65 years of age and in good health is a prospective blood donor. All persons offering to give blood are medically screened to protect their health and that of the patient who receives their gift.

Donors may give blood as often as every eight weeks but not more often than five times a year. Many men and women are multiple-gallon donors, and a Birmingham salesman is a 16-gallon donor.

Birmingham Regional Collections Up in 1970-71

Birmingham Regional Red Cross Blood Program collections rose to a record high of 118,003 pints in 1970-71, exceeding even the totals donated when Red Cross was providing blood for wounded servicemen in South Vietnam.

The report was made recently by the Rev. Richard Bolen of Gadsden, Birmingham Regional Red Cross Blood Program chairman. This was an increase of more than 13,000 above 1969-70 collections.

The previous high for the 20-year-old region was 112,042 in 1966-67, the year Auburn University students and faculty set a world's record for colleges and universities by donating 4,812 pints.

The Birmingham Region consistently ranks among the top 10 of the 59 American Red Cross blood regions in volume of collections. Fifty-six chapters in Alabama and 15 in North Mississippi participate in the regional program.

The Birmingham Region supplies blood to hospitals including those operated by the military in Florida, Georgia, Alabama, Tennessee and Mississippi on a regular basis. It supplies the total requirement of

some 100 Alabama hospitals, including University Hospital in Birmingham, which ordered 17,689 units last year.

Dr. John W. Kirklin, professor and chairman of the Department of Surgery of the University of Alabama in Birmingham, has been quoted as saying University Hospital's internationally renowned open heart surgery program was brought to Bir-

region to increased efforts to meet the rising demand for blood and blood components on the part

growth, and of increased usage in medical procedures because of improved techniques in transfusions.

Where physicians once administered only blood transfusions, they now often prescribe specific parts of the blood for specific physical needs, such as cryoprecipitates for hemophiliacs and red cells for victims of leukemia.

Bolen said alarm over recent

in the region, donating 34,293 pints last year. The Montgomery Area Chapter was the next largest contributor with 12,742, an increase of 24 per cent over 1969-70.

Around 90 per cent of the blood collected by the Birmingham Region is donated during Bloodmobile visits to schools, business firms and communities, the remainder from donors who come to Red Cross Blood Centers.

The largest single response to an emergency appeal for donors occurred at the Birmingham Center last January when 400 came from all over North Alabama after a critical shortage of blood for leukemia patients was reported by newspapers, radio and television. Some parents who couldn't find babysitters brought their small children with them so both the husband and wife could give blood.

The Birmingham Region has one of only three automatic blood analyzers licensed by the National Institutes of Health in the Southeast. The Birmingham Blood Center also recently installed a freezer in which rare types of blood can be stored for indefinite periods until needed.

mingham because of the assurance an adequate supply of blood would be available at all times.

The American Red Cross nationally collects 3,500,000 pints from volunteer donors, an estimated 70 per cent of all the blood voluntarily donated in the United States each year.

Bolen credited the 12.5 per cent increase in the Birmingham

of Red Cross chapters and the staff.

He said blood usage increases every year because of population

hepatitis outbreaks increased the demand for voluntarily donated blood, in which the danger of exposure to the debilitating, sometimes fatal disease is 10 times less than in blood obtained from other sources. The Birmingham Region began screening for hepatitis early this year, one of the first Red Cross regions to do so.

Jefferson County donors are the largest single source of blood

QUESTIONS and ANSWERS about YOUR blood

WHAT DOES BLOOD DO? Blood, which the heart pumps rapidly round and round the body through miles of blood vessels, does many things to keep us alive and healthy. It carries the necessities of life—oxygen, water, and food—to all the cells of the body.

WHAT ARE THE PARTS OF BLOOD AND HOW DO THEY WORK? The microscope shows that blood contains cells suspended in a liquid. These cells—red cells, white cells, and platelets—comprise about 45 percent of the blood. The remaining liquid portion is the plasma, about nine-tenths of which is water.

RED CELLS. Red Cells are made in the red bone marrow. At a certain point in the development of the red cell, hemoglobin is added. This hemoglobin consists of the iron-containing and red pigment (heme) combined with a protein substance (globin). It is the hemoglobin that gives the red cells their ability to pick up oxygen in the lungs. After picking up oxygen in the lungs, red cells deliver it to the tissues, where it is used.

Within the body, red cells have been found to live from 100 to 120 days.

The average man has 30 trillion (30,000,000,000,000) red cells in his blood, about 2.5 trillion per pint; women have slightly less, about 27.5 trillion.

WHITE CELLS. Research has shown that white cells are also made in the bone marrow and in the lymphoid tissues of the body. There is approximately 1 white cell to every 600 red cells. These white cells are among the most important agents by which the body defends itself against disease.

PLATELETS. Platelets are formed by a fragmentation of giant cells in the red bone marrow. There are about 1.5 trillion platelets in the normal bloodstream.

Platelets assist in blood coagulation since they help form the blood clots that in turn stop bleeding by plugging openings in blood vessels.

PLASMA. Plasma is composed of water (about 91-92 percent), proteins (about 7 percent), and very small amounts of fats, sugar, and mineral salts. The sticky or gummy quality of blood is partly due to the plasma proteins. Without certain proteins (fibrinogen, antihemophilic factors, etc.), blood would not clot, and it is by clotting that bleeding is stopped.

HOW MUCH BLOOD HAVE YOU? The normal human adult of average weight has ap-

proximately 10 to 12 pints of blood in his body, or about 8 per cent of his body weight.

Under certain conditions the blood volume may be increased. These conditions include exposure to high temperature, low oxygen supply, muscular exercise, excitement, and pregnancy. A reduction in blood volume below its normal level may be caused by hemorrhage, shock, the loss of plasma caused by extensive burns.

WHAT IS YOUR BLOOD GROUP? There are four main groups of blood—A, B, AB, and O.

When a person requires a blood transfusion, he must have blood that matches his group; otherwise, the cells will be destroyed and cause a serious reaction. However, under rare conditions group O blood may be given to group A, B, or AB patients.

Samples of the donor's blood and the patient's blood are the first crossmatched to make sure that they "agree." If the cells from the donor's sample do not clump when added to the blood serum of the patient's sample, the bloods are "compatible," and successful transfusion is possible. Compatibility tests are complex and require about 45 minutes for proper execution.

WHAT IS RH? The Rh factor is an inherited blood group of the red cells like the ABO groups. It is present in approximately 85 percent of the population of this country. Those who possess the factor are said to be type "Rh-positive." The 15 percent who do not possess it are type "Rh-negative." The percentage distribution varies in racial groups.

WHAT IS RARE BLOOD? There are dozens of blood factors other than that mentioned above, making hundreds of millions of factor combinations possible. Some of these blood factors or profiles of blood factors are uncommon. A factor is defined as rare if it occurs in less than 1 person out of 200. When these rarer persons become immunized by transfusion or pregnancy, they must receive blood that matches theirs exactly. The Red Cross maintains a Rare Donor Registry for the purpose of such matching.

WHAT ARE SOME COMMON DISEASES OF BLOOD? The most common disease affecting the red cell population is anemia. A person may have anemia if the output of his red cell factories is deficient in quantity or quality or both or if the number of red cells destroyed or lost from his circulation (as in hemorrhage, for example) is greater than usual.

Laboratory examination of a sample of blood is the only sure way of telling whether a person is anemic and, if so, which of the many forms of anemia is present.

An increase in white cells under the stimulus of an infection is an orderly mobilization set in motion by the body's need for new recruits to fight invading bacteria. When there is a disorderly overgrowth of white cells, leukemia is the result. Leukemia is a malignant blood disease for which there is as yet no complete cure. Acute forms of leukemia usually occur mainly in younger people. In later life, chronic forms occur that are compatible with long, relatively normal living.

Persons whose blood does not clot normally ("bleeders") may be suffering from a hereditary disease called hemophilia. In hemophilia, a plasma protein that takes part in clotting is deficient.

HOW ARE WHOLE BLOOD AND ITS COMPONENTS USED MEDICALLY? COMPONENT TRANSFUSION THERAPY. It is now possible to separate the red cells, platelets, white cells, and plasma of each blood donation. Most patients need only the red cells. Some need only platelets and others only a "fraction" of the plasma. It is wasteful and frequently harmful to burden a patient with components he does

not need. This is the philosophy of component transfusion therapy.

WHOLE BLOOD. The term "whole blood" is used here to denote blood to which a preservative has been added. This preservative is usually a solution containing citric acid; sodium citrate, and dextrose—an ACD solution. Whole blood must be stored in refrigerators at a temperature level of from 1 to 6 degrees centigrade; under these conditions it may be kept for 21 days.

Whole blood transfusions are occasionally necessary when very large amounts of blood have been lost as a result of accident, injury, childbirth, etc.

PLASMA. Plasma, the liquid portion of the blood, is usually separated from the cells by settling or centrifuging. Centrifugation is accomplished by placing containers of blood in a centrifuge machine, which spins them round and round at high speeds. After centrifugation the cells in the blood have been pulled to the bottom of the container, leaving plasma above. The plasma is then drawn off and is ready for use.

POOLED, STORED PLASMA is no longer commonly used for the management of shock because of the danger of hepatitis. It is better to fractionate plasma, making it possible to use the resulting fractions for several patients as indicated. Instead of plasma, Plasma Protein Fraction (PPF), which is a 5 percent solution of albumin and some globulins or albumin and some globulins or albumin, is now used. These are safe because the hepatitis agent has been inactivated by pasteurization.

FRESH FROZEN PLASMA is used in the treatment of patients with blood coagulation or (clotting) abnormalities. This specially prepared plasma is processed not more than 4 hours after collection and is immediately frozen.

RED BLOOD CELLS. The solids that are separated from the plasma by centrifuging are a mixture of red cells, white cells, and platelets. However, since there are about 20 times as many red cells as white cells and platelets combined, and because the mixture is used for its red cell content, it is generally referred to as red cell concentrate. This may be stored for up to 21 days from the time of collection, just the same as whole blood, if the container is not entered for removing the plasma. Red Cells are extremely valuable for treating anemias where it is undesirable to give plasma to the patient. This preparation is the

preferred transfusion treatment in patients not actively bleeding and is indicated with over 70 percent of the patients needing blood transfusion.

PLATELETS. Platelets can be separated from freshly collected blood. If administered within 48 hours of donation, platelets may stop bleeding due to platelet deficiency.

FRACTIONS. Plasma has been broken down into fractions by a process known as selective precipitation. As a result of mixing plasma with certain chemicals, the proteins can be separated individually as pastes. These pastes are quickly frozen, then dried. The proteins appear as dry, white powders and in this form are stable and easily stored. Later they are dissolved, sterilized and packaged.

Many fractions have been isolated, and from these, several derivatives are now available for medical use. As research continues, more will be available.

SERUM ALBUMIN, which makes up about half of the protein content of plasma, is used in the treatment of certain kidney and liver diseases and in severe malnutrition. Because of the relative simplicity of storage and administration, it is also used for emergency cases, such as accident and shock victims, particularly where facilities for administering blood are not available or where time does not permit its use.

GAMMA GLOBULIN is a plasma fraction that is able to modify or prevent measles. Although a common disease, measles sometimes results in serious complications. Gamma globulin may also be effective in preventing infectious hepatitis, a virus infection of the liver. People with a rare disease called agammaglobulinemia are highly subject to infection. They are protected by frequent injections of gamma globulin, which their bodies lack.

VACCINIA IMMUNE GLOBULIN is a specially prepared gamma globulin used in the management of complications resulting from smallpox vaccination.

FIBRINOGEN is one of the plasma proteins essential to blood clotting. It is used in certain cases of hemorrhage in which the patient's own fibrinogen has been destroyed or is lacking.

ANTIHEMOPHILIC FACTOR (AHF) is prepared from fresh plasma. It is used to control bleeding of hemophiliacs. This fraction is still in very limited supply.





*Give more than a damn . . .
give your blood !*