



BLOOD BANK OF ALASKA

Helping Alaska patients in need.

The science of blood donation has come a long way.

17th CENTURY

1628 British physician William Harvey **discovers the circulation of blood.** The first known blood transfusion was attempted sometime after this.

1658 Microscopist Jan Swammerdam **observes and describes red blood cells**

1665 **First recorded successful blood transfusion occurs in dogs** in England.

1667 Several reports of successful transfusions from sheep to humans are reported. Jean-Baptiste in France, Richard Lower and Edmund King in England.

19th CENTURY

1818 British obstetrician James Blundell performs the **first successful transfusion of human blood to a patient** for the treatment of postpartum hemorrhage.

1873-1880 U.S. physicians attempt **transfusing milk from cows, goats and humans.**

1884 Saline infusion replaces milk as “blood substitute” due to the increased frequency of adverse reactions to milk.

20th CENTURY

1901 Karl Landsteiner, an Austrian physician, **discovers the first three human blood groups.**

1907 Ludvig Hektoen suggests that the safety of transfusion might be improved by . cross-matching blood between donors and patients to exclude incompatible mixtures. Reuben Ottenberg **performs the first blood transfusion using blood typing and cross-matching.**

1914 Long term **anticoagulants**, among them sodium citrate, are developed, allowing longer **preservation of blood.**

1939-1940 The **Rh blood group system was discovered** by Karl Landsteiner, Alexander Wiener, Philip Levine and R.E. Stetson.

1940 The U.S. government establishes a **national blood collection program.**

Edwin Cohn develops cold ethanol fractionation, the process of breaking down plasma into components and products.

Early blood processing program for relief of English war victims, called Plasma for Britain, begins under the direction of Charles R. Drew. M.D.

1944 **Dried plasma becomes a vital element** in the treatment of wounded soldiers during WWII.

1947 **ABO blood-typing and syphilis testing** is performed on each unit of blood.

1949 The U.S. system is comprised of 1,500 hospital blood banks, 46 community blood centers, and 31 American Red Cross regional blood centers..

Main Center: 4000 Laurel Street Anchorage, AK 99508

Anchorage: (907) 222-5630

www.bloodbankofalaska.org

Call for an Appointment: Fairbanks (907) 456-5645



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In the last 60 years the process of blood collection has changed.....

20th CENTURY

SECOND HALF OF

21st CENTURY

1950 Audrey Smith reports the use of glycerol cryonpectanant for red blood cells.

1956 Establishment of a **national blood clearing house.**

1957 **The American Association of Blood Banks forms** its committee on Inspection and Accreditation to monitor the implementation of standards for blood banking.

1961 Platelet concentrates are recognized for **reducing the mortality from hemorrhage in cancer patients.**

1962 **Blood Bank of Alaska is formed..**

1969 S. Murphy and F. Gardner demonstrate the feasibility of storing platelets at room temperature, **revolutionizing platelet transfusion therapy.**

1970 U.S. blood banks **move towards an all-volunteer** blood donor system.

1971 **Hepatitis B** surface antigen (HbsAg) testing of donated blood begins.

1972 Apheresis is used to extract one cellular component, returning the rest of the blood to the donor.

Food & Drug Administration (FDA) begins to regulate all 7,000 U.S. blood and plasma centers.

1978 FDA requires blood bags to be labeled “paid” or “volunteer”.

1981 Main Anchorage Blood Bank of Alaska center built.

1983 Additive solutions extend **shelf life of red blood cells to 42 days.**

The U.S. blood banking groups issue their first warning about Acquired Immune Deficiency Syndrome (AIDS).

1985 FDA licenses the first test to detect the antibody to HIV on March 3rd.

1992 **Testing of donor blood for HIV-1 and HIV-2 antibodies** is implemented.

1993 Introduced automated apheresis donation to our center at Blood Bank of Alaska.

1999 Lifemobile coach begins collections at Blood Bank of Alaska.

2002 Nucleic acid amplification test (NAT) for HIV and hepatitis C virus (HCV) licensed by FDA.

2005 Fairbanks Blood Bank of Alaska center opens.

2008 Added second Lifemobile Coach to our fleet.

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