

<b>Date</b>	<b>Scientist</b>	<b>Contribution</b>
500 BCE	Alcmaeon of Croton	Believes arteries and veins are not the same
450 BCE	Empedocles	Believes organ of sense is the heart; theory that all matter is made of 4 elements: earth, fire, air, water
400BCE	Hippocrates	Postulated that the 4 humors were the cause of disease; formed basis of Western medicine
300 BCE	Herophilus of Chalcedon	Arteries are thicker than veins and carry blood
130 CE	Claudius Galenus (Galen)	Through dissection proved that arteries contain blood; his ideas formed the core of medical knowledge for several centuries
1250	Ibn al-Nafis	Describes pulmonary circulation
1553	Michael Servetus	Refutes Galen's theory and is burned at the stake; confirms al-Nafis' discovery of pulmonary circulation
1555	Andreas Vesalius	Founder of modern anatomy
1628	William Harvey	Explains that blood circulates through the body and is pumped through the heart
1658	Jan Swammerdam	1st person to observe and describe red blood cells
1661	Marcello Malpighi	Observed the capillary system
1665	Richard Lower	Performed the 1st recorded blood transfusion in animals
1667	Jean-Baptiste Denis	Performed lamb's blood transfusion on teenage boy
1674	Anton van Leewenhoek	Gives more precise description of red blood cells
1771	William Hewson	Researched blood clotting and discovered fibrogen
1818	James Blundell	1st human to human blood transfusion
1901	Karl Landsteiner	Discovered 3 main human blood groups
1907	Reuben Ottenberg	Performs 1st transfusion using cross matching
1914	Albert Hustin	Discovered that adding sodium citrate to blood will prevent it from clotting
1915	Richard Weil	Determines that blood can be refrigerated and stored for several days
1916	Francis Peyton Rous	Developed a citrate-glucose solution that allows blood to be stored for a few weeks
1922	Percy Lane Oliver	Started a blood donor service in London
1930	Dr. Serge Yudin	1st successful transfusion using cadaver blood
1936	Federico Duran-Jorda	Established Barcelona Blood Transfusion Service for use during the Spanish Civil war
1940	Karl Landsteiner	Discovers Rh blood group through experiments with Rhesus monkeys
1940	Charles Drew	Discovers that preserved plasma is a viable substitute for whole blood
1940	Edwin Cohn	Discovered the process of fractionation – the separating out of blood proteins
1948	Dr. Carl W. Walter	Discovered plastic bag for storing blood
1959	Dr. Max Perutz	Discovered the structure of hemoglobin
1971	Elliot Richardson	Regulation of blood banking is transferred to the FDA