

# Famous Doctors of the Renaissance

15<sup>th</sup> and 16<sup>th</sup> Century Medicine





# William Harvey

## Specialty: Circulation System

William Harvey was an English doctor. His groundbreaking work and discoveries about the human circulation system changed what doctors knew about the circulation of blood around the body.

As a young man, he attended Cambridge University, where he studied medicine. In 1602 he completed his studies with a doctorate from the University of Padua in 1602. Back in England, he began practicing medicine. In 1607 he received a fellowship at the Royal College of Physicians where he taught medicine.

In 1609 he was given the head role at St. Bartholomew's Hospital in London.



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In 1618 he became the royal doctor to King James I of England and then King Charles I. The king valued his medical knowledge and used him as an expert witness in court. Harvey became involved in the witch hunts of the 17th century testifying in several trials and saving at least four women who had been accused of being witches.

To understand the work that William Harvey did and the importance of his discoveries, we need to start by looking at what knowledge doctors had when William first became a doctor.



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Galen was the expert of the time and the first doctor who identified the difference between veins and arteries in the 2nd century. Galen also proved that the arteries carried blood and not air.

He also taught that there are three main systems in the body that are all interconnected: the brain and nerves; the heart and arteries; and the liver and veins. Galen believed that dark blood formed in the liver and then travelled through the veins to deliver food to the body. The blood would collect air in the lungs and travel to the heart. From the heart, the bright red blood would go to the brain where it would form “pneuma,” a substance responsible for allowing people sensation and feeling.



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He believed that the blood did not travel back to the liver or heart again but that it would be used up by the body. When someone was ill, he believed that the body had made too much blood throwing it off balance, which is why bloodletting was a common treatment at that time.

William Harvey studied Galen's work closely and developed his own theory to explain how blood flowed. He conducted many experiments and dissections of humans and a variety of animals. All his theories were based on the data collected during these experiments. He published all these theories in a book called **On the Motion of the Heart and Blood in Animals** in 1628.



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In his book, he carefully explained his theories that blood flowed around the human body in a circle of constant motion moved by the engine of a beating heart.

Unfortunately, even though William Harvey's discoveries were accurate, many doctors continued with the old practice of bloodletting for many more years.