The History of the Heart

In the fourth century B. C., the Greek philosopher Aristotle identified the heart as the most important organ of the body, the first to form according to his observations of chick embryos. It was the seat of intelligence, motion, and sensation -- a hot, dry organ. He described it as a three-chambered organ that was the centre of vitality in the body. Other organs surrounding it (e.g. brain and lungs) simply existed to cool the heart.

In the second century A. D., Galen reaffirmed common ideas about the heart as the source of the body's innate heat and as the organ most closely related to the soul. He also observed carefully many of its unusual physical properties.  "The heart is a hard flesh, not easily injured. In hardness, tension, general strength, and resistance to injury, the fibres of the heart far surpass all others, for no other instrument performs such continuous, hard work as the heart."  He argued that the expansion and contraction of the heart was a function of its role as an intelligent organ. He argued that the heart was secondary to the liver in its importance to the operations of the body, since it was not the site of the production of the humors.



At the beginning of the eleventh century, Avicenna wrote: "[The heart is the] root of all faculties and gives the faculties of nutrition, life, apprehension, and movement to several other members." He believed that heart produced breath, the "vital power or innate heat" within the body; it was an intelligent organ that controlled and directed all others. He identified the pulse as "a movement in the heart and arteries which takes the form of alternate expansion and contraction, whereby the breath becomes subjected to the influence of the air inspired." Despite Avicenna's advice, most medical doctors preferred Galen's idea that the veins connected the operations of the liver to the heart, which circulated vital spirits throughout the body via the arteries. Look at this published image of the heart on the left. How does it exemplify the vagueness of its anatomy?

By the time of the Renaissance revival it was possible for physicians to clarify basic structures in the heart. By this point, they agreed the heart was divided into four parts with two ventricles and two auricles. 

Harvey supported the Aristotelian notion of the heart. He wrote in 1653: "The heart is situated at the 4th and 5th ribs. Therefore [it is] the principal part because [it is in] the principal place, as in the centre of a circle, the middle of the necessary body."

By the end of seventeenth century, the anatomical knowledge of the heart was surprisingly accurate