## A and how they lead to essay



A History of Medicine: The Humoral Concept, Anatomical Theory, and Germ Theory, and How They Lead to Modern Medicine Monica Rodgers Kaplan University Jeanne Zyrkowski HW215 From ancient times to modern day, medicine has changed in leaps and bounds. Many discoveries have been made through trial and error. Vaccines, organ transplants, blood transfusions, and pacemakers are just a few of the things medical advancement has brought us. However, at the root of all of this, there are the theories that we base our medical knowledge on.

These theories, the humoral concept of disease, the anatomical theory of disease, and germ theory are what has lead us to modern medicine, and changed not only how we see and treat disease, but also the human body. The humoral concept can be traced back to Hippocrates (490 to 377 B. C. ) of ancient Greece. It is based on the idea illness is caused by one or more of the four "humors" are out of balance in a person's body. It was believed that this imbalance caused the patient to display outward physical symptoms (sneezing, coughing, fever, etc. . These four humors were also associated with the elements, seasons, and certain qualities. The four humors were: yellow bile- fire, summer, hot and dry; black bile- earth, autumn, cold and dry; blood- air, spring, hot and moist; and phlegm- water, winter, cold and moist (Gill, 2012). Hippocrates proved that disease was a part of nature. He said, "The body of man has in itself blood, phlegm, yellow bile, and black bile; these make up the nature of the body, and through these he feels pain or enjoys health.

Now, he enjoys the most perfect health when these elements are duly proportioned to one another in respect to compounding, power and bulk, and

when they are perfectly mingled. Pain is felt when one of these elements is in defect or excess, or is isolated in the body without being compounded with all the others. " (Osborn, 2010). In the late 1700's, Giovanni Battista Morgagni, with the help of the newly invented microscope took this theory even farther, using pathology to discover the disease inside the body.

Thus, the anatomical theory of disease was born (Morgagni, Giovanni Battista: Complete Dictionary of Scientific Biography, 2008). In Morgagni's The Seats and Causes of Disease Investiguted by Anatomy in Five Books" he stated that a patient's symptoms were "the cry of the suffering organs." (Ventura, 20002) In the 19th century, Louis Pasteur discovered that disease was caused by germs. He also proved that bacteria did not spontaneously generate, but actually came from similar bacteria.

Pasteur used this knowledge to treat anthrax, rabies, and save Frances silkworm industry (Gupta, 2004). These concepts have common factors, but it is the differences that have led us to today. Each one covered a different area of treating disease. The humoral concept gave us the four elements, the anatomical concept helped us discover what was happening inside the body. However, without these two ideas germ theory would not have come into play, thus we would not have vaccines, antiseptics, various cancer treatments, etc.

Each of these concepts has played a key role in the development of modern medicine. The humoral concept showed us that outward symptoms were a sign of something wrong inside the body. Anatomical theory showed us the disease that was causing the outward symptoms. Germ theory showed us

what was causing the disease. In conclusion, it is these theories that have led us to medicine as we know it today. Each one is different; with different findings and different beliefs, but each one ties into the other. Without one, others wouldn't have been discovered.

It took many years and many people in several different countries to bring us to where we are today.

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