**The History of Medicine**

*History of Healthcare*
- As long as humans have been around, we have practiced medicine in some form.

*Ancient History*
- Many different cultural views:
  - Health or illness due to the moods of the gods
  - Natural remedies (herbs, diet, etc.)
  - Religion was a large factor
  - Primitive surgery was even performed

*Medical Symbols*
- Asclepius – Greek god of Healing
  - Symbol = Snake
- Priest healers adopted the Rod of Asclepius as their symbol
- Modern adaptation is still a healthcare symbol

*Hippocrates (~400 BCE)*
- Many writings on exam & treatment of patients
- Strict code to maintain patient privacy and to never deliberately harm patients

*Hippocratic Oath*
- Our modern code of ethics is rooted in ancient Greece
  - Current version was written in 1964 by Louis Lasagna, Academic Dean of the School of Medicine at Tufts University

*Galen (2nd century)*
- Roman physician of Greek origin
- Physician to the Gladiators
- Doctrine of 4 bodily humors
  - Blood, Phlegm, Yellow & Black Bile
- Anatomy demonstrations with dissection

*The Middle Ages*
- Science & reason began to replace spiritual and superstitious causes of disease

Mrs. Crouch
Bubonic Plague (541-544)
- Kills ~10,000 people a day at its peak in some areas of Europe

Diabetes
- Chinese physician Chen Ch’üan (d. 643) describes symptoms of diabetes mellitus; including thirst & sweet urine

Rhazes (865-925)
- Persian physician
- Built upon ideas of Hippocrates
- Documented the difference between smallpox and measles

The Cannon of Medicine (1025)
- Compiled by Persian philosopher Avicenna
- 5 volumes about Greek and Arabic medicine
- Dominant teachings of medicine until 17th & 18th c.

Barber Surgeons
- Cut more than hair!
  - Practiced “bloodletting”, cupping, pulling teeth, enemas...
  - Also, served with military
  - Treated battle wounds
  - Amputated limbs & cauterized (burned) the stump to seal vessels

Barber Surgeons
- Bandages were hung to dry, for advertisement
- Origins of modern day barber pole

Medical Care Regulation
- Norman king Roger II decrees a license is required to practice medicine (1140)
- Physicians were licensed after training
- Women not allowed to practice
  - Jacoba Felicie charged with practicing without a license in 14th c. France
  - Her defense: women were embarrassed to see a male physician

Midwifery
- Midwives have assisted women giving birth forever*
- 1452 – 1st professional association of Midwives is founded in Regensburg, Germany

Religion & Medicine
- Both Christian & Muslim teachings encourage the care of those in need.
  - Islamic hospitals with wards for different illnesses, trained nurses, and stores of medicine.
  - Christian monasteries founded to treat the sick. Local healers served (many women). Treatment was mostly rest & prayer.
The Renaissance
- Many changes during 14th - 17th centuries
- 15th c. = Printing Press
  - Publish books and spread ideas very quickly

16th c. = Scientific Method used
- Major change in medicine & research
- No more guessing or supernatural causes
- Look for actual cause of illness
  - Based on observations and experimental results

Anatomy
- New ideas allowed for the study of Human Anatomy at this time
  - formerly forbidden by the church
  - This corrected many ideas
  - De humani corporis fabrica by Flemish anatomist Andreas Vesalius – 1st accurate work on anatomy (1543)

Industrial Revolution (18th – 19th c.)
- BIG changes because of MACHINES
  - Stethoscopes invented
  - Blood cells, bacteria, & protozoa seen with microscopes
  - Capillaries discovered
  - Ether was 1st used during this time

Edward Jenner (1749-1823)
- Began vaccinations by using the fluid from cowpox to prevent smallpox

Joseph Lister (1827-1912)
- Insisted on CLEAN instruments and hands between patients (used carbolic acid; known as Aseptic technique)
  - Ridiculed for this until...

Robert Koch (1843-1910)
- Discovered that microorganisms (pathogens) are the source of some disease
  - Modern Bacteriology

Modern Medicine (20th c. +)
- Rapid Changes
  - ALL branches of science & engineering contribute to medical field
  - The only certainty in healthcare is CHANGE!

Modern Medicine (20th c. +)
- Antibiotics invented
- X-Rays for noninvasive diagnosis
  - CT, MRI, ultrasound, etc...
- Organ Transplants
- Radium for cancer treatment
- Robotic assisted surgeries
- Human Genome Project
- Stem Cells

What other examples can you think of?