



The History and Progression of Western Medicine (Timeline of Western Medicine In The World)

Matthew Souquet and Agustin Tarazona

Introduction

The medical world we know today didn't just appear out of nowhere but was developed over thousands of years with countless innovations, discoveries, and important medical figures driving the growth of the medical world. We will go through the most significant periods of history to demonstrate how far we have come medically.



The Development and Impact of Medicine in Ancient Mesopotamia (4000 – 3300 BC)

- Early medicine was very different from modern medicine. There was a large emphasis on ritualistic practices and superstition. Disease and sickness was often seen as an evil spirit taking over the body or even a God that the victim of the illness wronged and is now being punished for.
- In Mesopotamia, healers of the time recorded their practices onto clay tablets.
- Occasionally, “healers” would also perform therapeutic practices, such as performing rituals and calling for the assistance of their deities.



ΑΠΑΝΤΑ ΤΑ ΤΟΥ
ΙΠΠΟΚΡΑΤΟΥΣ.

OMNIA OPERA
✓ HIPPOCRATIS.



Ne quis alius impune, aut Venetiis, aut usquam lo-
corum hos Hippocratis libros imprimat, &
Clementis VII. Pont. Max. & Sena-
tus Veneti decreto cau-
tum est.

*sec. de Poinis Turoni ambrosius lect. med. univ. par.
Turoni 1682. Off. Mariae in Yve.*

The Development and Impact of Medicine in the Greek and Roman Empires (2800 – 1100 BC)

- Medicine in their culture was believed to be created by Chiron (a centaur).
- Hippocrates turned away from the divine aspect of medicine instead opting to observe the body for his medical basis
- Aristotle believed that one must trust in their senses in the pursuit of knowledge and reality.

Brief History Of The Black Death (Medieval Era: 500-1500 AD)

- The Black Death (1346-1353) was the first wave of the Bubonic Plague and was the worst. It became one of the most fatal pandemics in world history.
- The Black Death mainly ravaged Europe killing around 30 million people (30-50% of the population), but about 50 million people altogether in the old world.
- The Black Death spread to humans by the bite of fleas that contracted the plague from rats. The plague's main passageway was believed to be through Italian trading ships that came from Central Asia.
- They did have two other waves of the plague, but they were less severe.



The Development and Impact of Medicine/Medical Procedure During the Black Death

- **Symptoms:**

- Painful boils that occurred mainly in the groin, neck, and armpits which would secrete pus and blood. This was accompanied by extreme fever and vomiting blood.
- Unfortunately, the doctors of the day had not much to work with so they could not find a cure. So, they resorted to ancient remedies that were passed down because of medical contributors like Hippocrates.

- **Medical Treatments:**

- Animal remedies (such as chopping a snake into pieces and applying those pieces to the boils)
- Potions (Four Thieves Vinegar containing cider, vinegar, or wine with certain spices)
- Fumigations (incense or smoke in homes)
- Bloodletting (leeching)
- Pastes (cream made of various roots, herbs, and flowers)
- Public health measures such as medical inspections, quarantining, and regulating travel and commerce were formed and implemented for the first time officially to prevent the spread of the plague. Many of these measures to prevent the spread of disease continue to be utilized to this day.

Brief History Of The Spanish Flu (Modern Era: 1500 - Present)



- The Spanish Flu Pandemic (1918-1919) ravaged the world in three waves (spring, fall and winter) in 1918. The fall wave was the deadliest and the pandemic became one of the most fatal in world history. It killed between 20-50 million people but could have been as much as 100 million.
- The pandemic also occurred during World War 1 (1914-1918).
- The virus was widely believed to have come from birds. The pandemic was caused by a form of influenza A virus which was discovered by Richard Shope, a prominent American virologist.
- Experts are still unsure where the virus first emerged. The virus would spread mainly through England, Italy, and Spain, and to the rest of the world in a matter of months.

The Development and Impact Of Medicine During The Spanish Flu

- **Symptoms:**

- The flu symptoms then were like the flu symptoms today but more severe. It included high fever, dry cough, body aches, extreme fatigue, shortness of breath, etc.
- War time conditions and limited healthcare services were major contributors to worsening the impact of the flu.

- **Medical Treatments:**

- At the end of the pandemic, blood transfusions became a common and effective treatment, but blood typing and matching was still in an early stage.
- A vaccine was produced in 1942, and it was learned that one type of the virus did not give protection against the other, so the vaccine contained a blend of type A (affected humans and animals) and B (affected animals).
- While research about the flu and the vaccine was happening, it gave tools to form other vaccines for respiratory illnesses and it even led to the conclusion that our DNA holds a genetic code.



The Development/Impact Of Vaccines In Our Modern World

- Vaccines produce antibodies which help your body fight Viruses
- The first Vaccine was made in 1798 by Edward Jenner as a measure against Smallpox.
- The first Polio vaccines were issued in 1955.
- This vaccine has been estimated by the CDC to have prevented the paralysis of around 20 million children since 1988 with a 99% reduction in reported cases.

The Development/Impact Of Antibiotics In Our Modern World

- The first antibiotic was discovered by Alexander Fleming in 1928 with his discovery of penicillin but wasn't made commercially available until 1945.
- 1940 to 1962 is referred to as the golden era of Antibiotics as most of today's antibiotics were discovered around this time.
- In 1987 a "discovery void" had hit the world of Antibiotics leading to less and less research being done on Antibiotics.
- The Bubonic Plague can be cured with antibiotics such as Ciprofloxacin, Gentamicin, Doxycycline, and others now.



Citations

- Simko, K. (2021, November 30). *Ancient healthcare fit for a king*. The British Museum. <https://www.britishmuseum.org/blog/ancient-healthcare-fit-king>
- National Library of Medicine. (2008). *Greek Medicine*. Www.nlm.nih.gov. <https://www.nlm.nih.gov/hmd/topics/greek-medicine/index.html>
- Mark, J. (2020, April 15). *Medieval Cures for the Black Death*. World History Encyclopedia; World History Publishing. <https://www.worldhistory.org/article/1540/medieval-cures-for-the-black-death/>
- Cleveland clinic. (2021, September 21). *Spanish Flu: What Is It, Causes, Symptoms & Pandemic*. Cleveland Clinic. <https://my.clevelandclinic.org/health/diseases/21777-spanish-flu>
- Baicus, A. (2012). History of polio vaccination. *World Journal of Virology*, 1(4), 108. <https://doi.org/10.5501/wjv.v1.i4.108>
- Immunize.org. (2024, January 17). *Vaccine History Timeline*. Immunize.org. <https://www.immunize.org/vaccines/vaccine-timeline/>
- World Health Organization. (2024, April 23). *Vaccines and Immunization: What is Vaccination?* World Health Organization; World Health Organization. <https://www.who.int/news-room/questions-and-answers/item/vaccines-and-immunization-what-is-vaccination>
- CDC. (2024, May 21). *About Global Polio Eradication*. Global Polio Vaccination. <https://www.cdc.gov/global-polio-vaccination/about/index.html>
- ReAct. (2016). *History of antibiotic development*. Reactgroup.org. <https://www.reactgroup.org/toolbox/understand/antibiotics/development-of-antibiotics-as-medicines/>
- ReAct. (2016). *History of antibiotic development*. Reactgroup.org. <https://www.reactgroup.org/toolbox/understand/antibiotics/development-of-antibiotics-as-medicines/>
- ReAct. (2016). *History of antibiotic development*. Reactgroup.org. <https://www.reactgroup.org/toolbox/understand/antibiotics/development-of-antibiotics-as-medicines/>
- Wallace, R. (2020, April 13). *Medical Innovations: From the 1918 Pandemic to a Flu Vaccine*. The National WWII Museum | New Orleans. <https://www.nationalww2museum.org/war/articles/medical-innovations-1918-flu>