

EVOLUTION OF MEDICINE

The more you know
about the past, the better
prepared you are for the
future.

Theodore Roosevelt

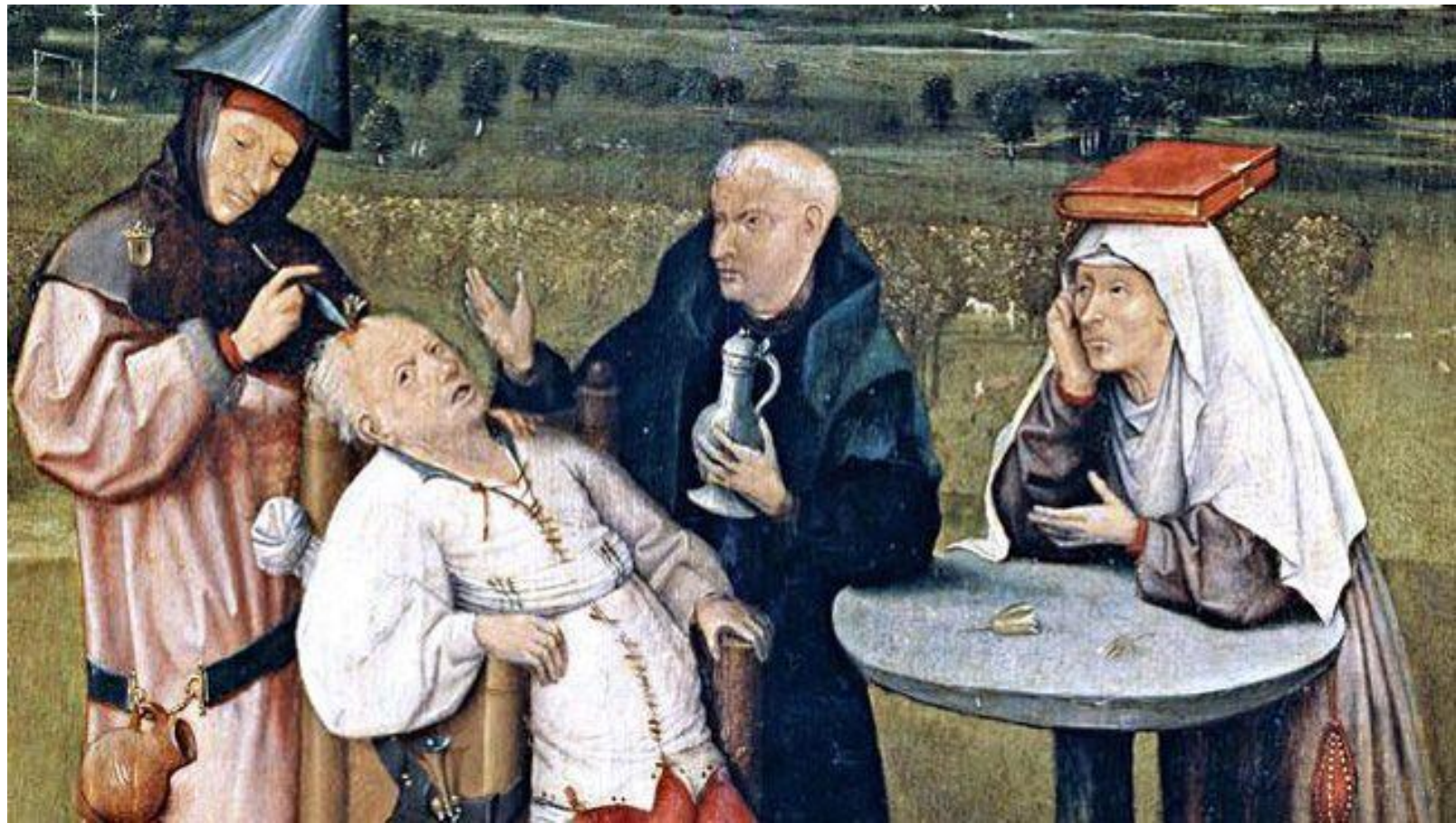
"If you don't know history, then you
don't know anything. You are a leaf
that doesn't know it is part of a tree."

Michael Crichton
3 Dec 2003 7:33 PM

<https://www.youtube.com/watch?v=Hkvjt3XeRx8&t=8s>

- Humans and their earlier evolutionary forms....explored nature and environment...to find explanation as well as treatment...
- Mythology..replete with examples..
- Primitive man:
 - related disease and death to supernatural causes
 - evil spirits, sins, evil eye & so on!
 - Prayed gods to be blessed with immortality!
- ??? Have we ever become modern? Are we still evolving?





Civilizations...

- Large and prestigious; small and short-lived...
- Knowledge and practices of some of the major civilizations have roots of medicine/preventive medicine...
- Indian (Harappa-MohenjoDaro; Aryan-vedic; Post-Aryan)
- Chinese, Egyptian, Greek, Roman, Arabic...

Eras of Medicine...

- Ancient / Historic era (3000 BC – 500 AD)
- Middle ages (500 – 1500 AD)
- Renaissance era (1500 – 1800 AD)
- Era of modern scientific discoveries and advancements (1800 – 1950 AD)
- Era of Modern Medicine and Public Health (1950 AD onwards)

Ancient / Historic Era...

(3000BC - 500 AD)

Indian Medicine...

Indus valley phase (3000-2000BC)

Aryan-vedic phase (2000-500 BC)

Harappa and Mohenjo-Daro: Well planned townships, streets, drainage systems...also water tanks..

Vedas: sacred books of Aryan culture...

Atharvaveda has principles of ***Ayurveda*** laid down...

Ancient / Historic Era...

(3000BC - 500 AD)

Indian Medicine...

Ayurveda: 3 humors – *vata*, *pitta* and *kaf*

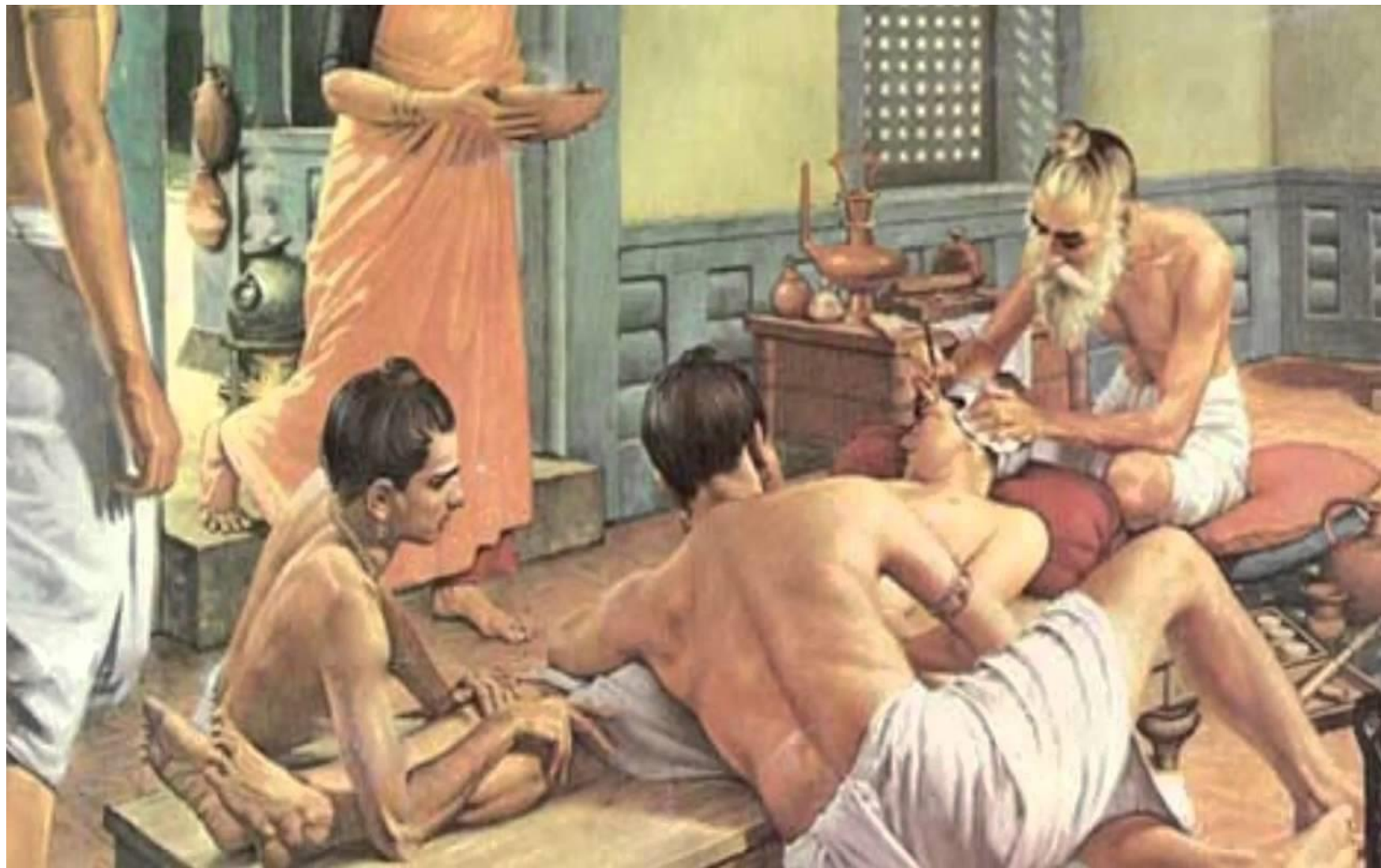
Aryan sages had invented a wide array of medicines from natural vegetation, herbs and flowers...(***Jadi-butti***)

Sages – ***Atreya (taxila), Sushruta and Charak***

Siddha: in southern parts of India

Post-Aryan phase (500 BC-500 AD)





Ancient / Historic Era...

(3000BC - 500 AD)

Indian Medicine...

Post-Aryan phase (500 BC-500 AD)

Incarnation of Lord *Buddha*, Lord *Mahavir*...

Ayurvedic practices flourished and also got supported by *Mauryan*, *Gupta* and *Kushan* Dynasties...

Around 300 BC – *Kautilya (Chanakya)*...

Heavy punishments for food adulteration, sexual violence and littering of streets...

Ancient / Historic Era...

(3000BC - 500 AD)

Chinese Medicine...

Basic guiding principle: constant influence of two opposing forces ***Yin & Yang***...*imbalance leads to disease...*

These forces exert influence on human body through 5 elements..*earth, water, fire, metal, wood...*

Acupuncture...

Bare-foot doctors...



Ancient / Historic Era...

(3000BC - 500 AD)

Greek Medicine...

Great scholars and teachers...

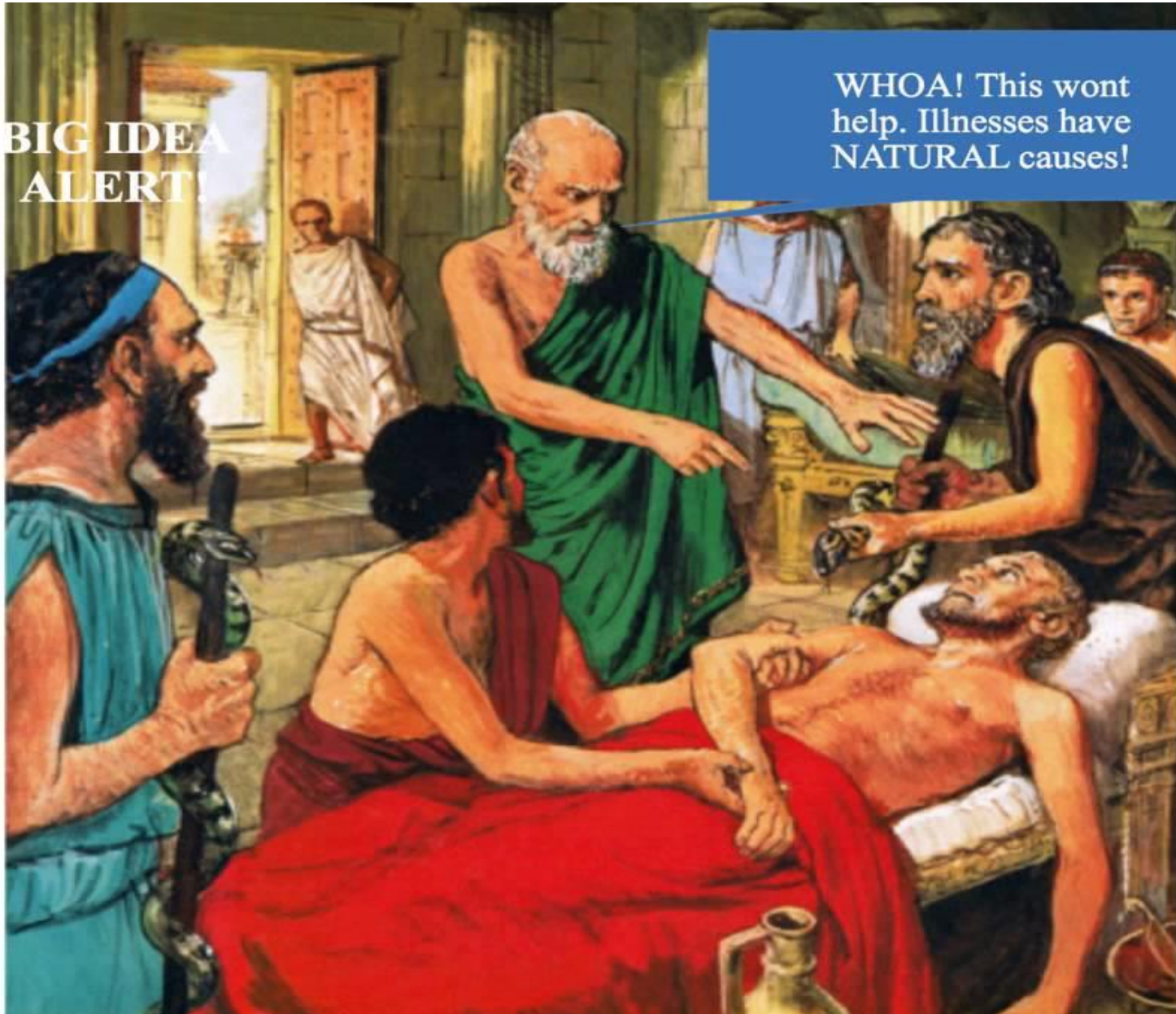
Many symbols currently used have originated from Greek philosophy..



Greek Medicine

**BIG IDEA
ALERT!**

WHOA! This won't
help. Illnesses have
NATURAL causes!





Ancient / Historic Era...

(3000BC - 500 AD)

Greek Medicine...

Aesculapius, son of Apollo, carried this staff with serpent...

Aesculapius had two daughters – **Hygeia, Panacea...**

Greek mythology also believed in **4 humors** - blood, phlegm, black bile and yellow bile...

Ancient / Historic Era...

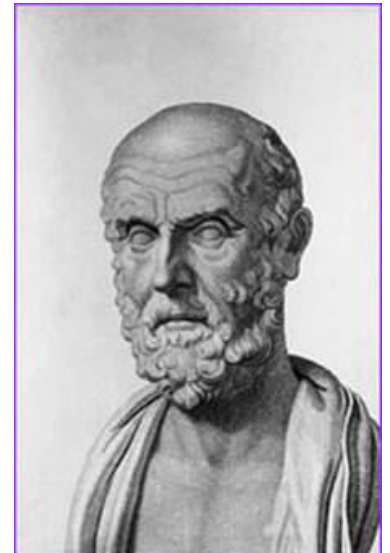
(3000BC - 500 AD)

Greek Medicine...

Greatest name in Greek medicine by far remains that of ***Hippocrates..***

The **OATH** lays down the code of conduct for medical professionals world over...

The **book** – “*On airs, waters and places*” talks about environment, diet and lifestyles



Ancient / Historic Era...

(3000BC - 500 AD)

Egyptian Medicine...

Believed in just one humor – Intoxication...bad food

Enemas..

Mummies - preservation of dead bodies..



Ancient / Historic Era...

(3000BC - 500 AD)

Roman Medicine...

were powerful between 120BC till about 200 AD..

had a more scientific approach towards public health.. Built public baths and lavatories..

first to conduct population enumeration kn as CENSUS..

Middle ages...

(500 – 1500 AD)

Generally referred to as ***DARK AGE...***

wars, famines, major epidemics (plague / Black Death in 14th century)

Social turbulence all over the world...

However, this period did see some rise of ARABIC system of medicine.. Developed its own *Unani-Tibb* system incorporating some principles of Greek and Roman era

Abu Bakr (Rhazes) – worked on measles

Renaissance Era...

(1500 - 1800 AD)

Marked transition from dark ages to the era of modern scientific discoveries...

Turning point: Paracelsus (stressed the need of evidences; made observations, did experiments, questioned earlier theories)

Fracastorius (hypothesized contagion theory & gave birth to infectious etiology to certain infectious diseases)

Vesalius (*Fabrica* – first modern anatomist)

Renaissance Era...

(1500 - 1800 AD)

William Harvey (started explaining blood circulation)... more understanding after..

Leeuwenhoek (discovered microscope)

James Lind (first ever clinical trial, used citrus fruits in treatment and prevention of Scurvy)

Edward Jenner (variolation, the first successful vaccination against smallpox)



Era of Modern science and advancements...

(1800 - 1950 AD)