

Research Archive



X-001:
amputation
knife



X-002:
Weighing
organs in the
morgue



X-003: Medical human cut-
out model (female)



The Knife



The surgeon Ambroise Paré printed a Parisian locksmith's design for a mechanical iron hand in the 16th century. *Instrumenta chirurgiae et icones anathomicae*/ Ambroise Paré via Wellcome Collection

Quoted from: Hausse, H. (2024) *Modern surgery began with saws and iron hands – how amputation transformed the body in the Renaissance*, [online]. Available at: <https://theconversation.com/modern-surgery-began-with-saws-and-iron-hands-how-amputation-transformed-the-body-in-the-renaissance-222864>.

Scholars often depict the American Civil War as an early watershed for amputation techniques and artificial limb design. Amputations were the most common operation of the war, and an entire prosthetics industry developed in response. Anyone who has seen a Civil War film or TV show has likely watched at least one scene of a surgeon grimly approaching a wounded soldier with saw in hand. Surgeons performed 60,000 amputations during the war, spending as little as three minutes per limb.

Yet, a momentous change in practices surrounding limb loss started much earlier – in 16th and 17th century Europe.

Early modern surgeons passionately debated where and how to cut the body to remove fingers, toes, arms and legs in ways medieval surgeons hadn't. This was partly because they confronted two new developments in the Renaissance: the spread of gunpowder warfare and the printing press.

Surgery was a craft learned through apprenticeship and years of traveling to train under different masters. Topical ointments and minor procedures like setting broken bones, lancing boils and stitching wounds filled surgeons' day-to-day practice. Because of their danger, major operations like amputations or trepanations – drilling a hole in the skull – were rare.



A 17th century treatise instructs surgeons to use a mallet and chisel among other amputation methods. Johannes Scultetus/Universitätsbibliothek Heidelberg

Widespread use of firearms and artillery strained traditional surgical practices by tearing bodies apart in ways that required immediate amputation. These weapons also created wounds susceptible to infection and gangrene by crushing tissue, disrupting blood flow and introducing debris — ranging from wood splinters and metal fragments to scraps of clothing — deep into the body. Mangled and gangrenous limbs forced surgeons to choose between performing invasive surgeries or letting their patients die.

Category:
Surgery
Object Number:
2018-471
Materials:
metal (unknown) and glass
Measurements:
overall: 800 mm x 400 mm x 300 mm,
type:
weighing scales
credit:
Ashford and St Peter's Hospital NHS Foundation Trust



Post-mortem scales are used by pathologists during autopsy, the last opportunity to 'question the dead' and establish the cause of a death. During a post-mortem, an organ is examined within the body before being removed, weighed and inspected in further detail. An unexpected weight might indicate disease or an abnormality, providing further evidence to explain a body's cause of death.



Through blood and bone, through your soul.



"A Glimpse."

Every day, she displays muscles, demonstrates blood flow, and simulates a heartbeat. Students watched in awe and parents nodded frequently. Then the vendor went out of business and the operating system was unmaintained. And she didn't stop.

state. This is the heart, for love,' stomach, for anxiety,' liver, for holding your breath,' uterus - oh, sorry, not enough permissions,' your epidermis, please take good care of it.'