



The Evolution of Orthopedic Casting



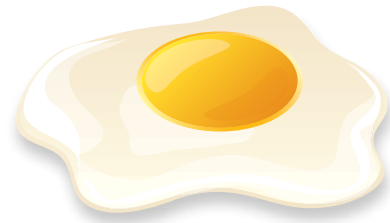
3000 BC Egyptian Ingenuity

In ancient Egypt, wooden splints made of bark wrapped in linen were the earliest known method of treating fractures. Embalming was used to construct a tight set of splints around the affected area.



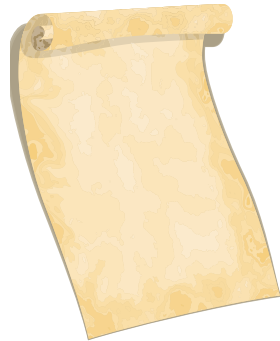
30 AD Early Roman Techniques

Roman encyclopaedist Aulus Cornelius Celsus, wrote of a technique using splints and bandages stiffened with corn starch to treat fractures. In addition, Roman history indicates using waxes and resins to stiffen bandages.



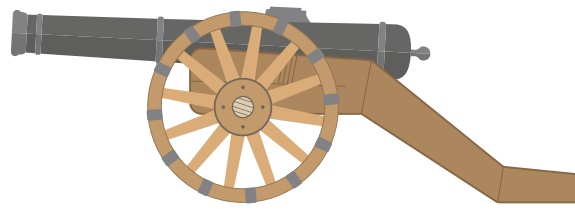
12TH CENTURY Medieval Bonesetters

Medieval bonesetters used casts made of egg whites, flour and animal fat, a technique also recommended by the Italian school of Salerno.



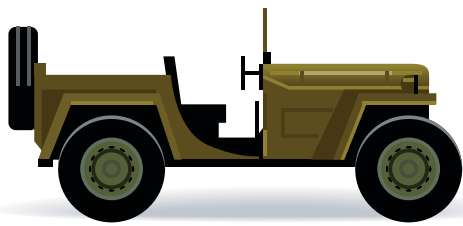
16TH CENTURY Artificial Limbs Accelerated

French Surgeon Ambrose Paré, promoted the use of artificial limbs made of wax, cardboard, cloth and parchment that hardened as they dried, a technique that would be used until the 1800s.



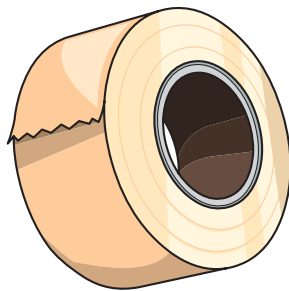
19TH CENTURY Military Surgeons: The Beginning of Modern Casting

A Belgian surgeon, Louis Seutin, used the 'bandage amidonee' technique on the battlefield against Napoleon. Bandages were soaked in a starch solution that required 2-3 days to set. Later, leading French surgeon, Velpeau, replaced starch for dextrin, reducing the set times to 6 hours.



19TH CENTURY Gypsum is Good

U.S. Army Officer William Eton described a casting technique he had witnessed in Turkey using gypsum plaster, which introduced plaster of paris. Military surgeons, Antonius Mathijsen and Nikolai Ivanovich Pirogov, also used this technique as it could be easily applied with great results.



1970s Fiberglass: The Right Fit

Fiberglass casting tape made it possible to produce a cast that was lighter and more durable than the traditional plaster cast and is water resistant (although the bandages underneath were not), allowing the patient to be more active.



TODAY Exos Upper Extremity Bracing

Exos® Bracing System is a removable, adjustable, reformable and waterproof solution for the treatment of fractures requiring stabilization. It is custom molded directly to the patient for best possible fit and comfort. Exos advanced technology can be used alongside or as an alternative to traditional casting and splinting.



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