Discover... SURGICAL INSTRUMENTS

Surgery is the branch of medicine that treats illness or injury through operative procedures.

In the United Kingdom, surgery to some extent developed separately from medicine, with surgery initially being performed by barber-surgeons, and medicine being practised by physicians with a university medical degree. Even today, the distinction is still observed, with the title of 'Mr', 'Ms', 'Mrs' or 'Miss' being used by surgeons rather than 'Dr'. Amongst the Maasai of Kenya a similar division applies: surgery is carried out by a class of surgeons who treat both humans and animals. However, in other cultures, surgery is performed by a more generalist doctor, and it is not perceived as being distinct from other aspects of medicine.

Location of countries from which the objects mentioned come:



Trepanation

The earliest known surgery was carried out more than 5,000 years ago. One of the procedures performed was trepanation, which involved drilling a hole in the skull. The purpose of this operation is not always clear, but, in different contexts, it has been done to relieve pressure on the brain, to cure headaches, to remove damaged bone, or to release evil spirits. Evidence for trepanation comes from archaeological sites in the Americas, Oceania, and Europe, suggesting it was a remarkably widespread practice.

Anthropologists in the early twentieth century reported that trepanation was still occurring in a number of places, notably Algeria, elsewhere in Africa, Bolivia, Peru, and Oceania. Although it is a relatively difficult and delicate procedure,

survival rates reported by anthropologists, and skulls from archaeological contexts showing post-operative healing, suggest an impressive rate of success. The trepanation tools pictured below were collected in the Aurès (east Atlas) Mountains in Algeria. They were donated to the Museum in 1913. With the tools (in a small box at the bottom of the picture) there are also small pieces of bone taken from a man's skull during a trepanation operation.



A Trepanation Tools, Algeria; 1913.17.85-.97

The surgical instruments displayed in the Museum come from Europe, Asia, Oceania, and Africa: however many of them are designed for carrying out similar operations, in particular circumcision, cauterizing, severing the umbilical cord, blood letting, opening boils and abscesses, and removal of the uvula (the small piece of soft tissue that hangs down at the back of the throat) and tonsils.

Cauterizations

Cauterization is the destruction of tissue for medical reasons by burning it with a hot iron, an electric current or a caustic, or by freezing it. In modern western medicine, a cautery is used to stop small lesions bleeding, or to eradicate a wart or other benign lesion.

In the past, and in other cultures, hot iron cauteries have been widely used, especially as a method of controlling bleeding. Amongst the Chaouia Berber of the Aurès Mountains of Algeria in the 1920s, cauteries were used to control haemorrhages, treat spleen disorders, to open abscesses, to destroy hernial sacks, and to heal sores, ulcers, and wounds. Cauteries have also been used for 'counter-irritation'. This was designed to cause pain or irritation in one part of the body in order to relieve pain or inflammation in another area. This cautery from Somalia consisted of a nail fixed to a stick. It was designed to cure pain by counter-irritation.



Cautery, Somalia; 1936.16.15

Circumcision

Male circumcision is practised all over the world, for medical, religious, and ritual reasons. The operation involves cutting away all or part of the foreskin of the penis, and is usually undertaken either in infancy or at puberty.

Although its origins are unknown, earliest evidence of the practice dates from ancient Egypt, where boys were generally circumcised between the ages of six and twelve years. Circumcision of males has been widely practised as a religious rite. It is an initiatory rite of Judaism:



 Circumcision knife, Nigeria; 1949.7.26

Jewish boys are generally circumcised on the eighth day after their birth, as a fulfillment of a covenant between God and Abraham. Circumcision is also practised by Muslims, for whom it signifies spiritual purification. In other cultures, circumcision is often associated with puberty rites.



This clip from Malaysia was collected in the early twentieth century. It was used to hold back the foreskin, whilst a knife was used to do the cutting.



Female circumcision knife, Somalia; 1936.16.10.1

Female circumcision is a term used to cover a range of procedures, from the drawing of blood, to the complete removal of the external sexual organs. The practice of female circumcision dates to ancient times, and it is still practised in many parts of the world. The knife and sheath pictured above were used for female circumcision. They were collected in Somalia in 1934–1935.

Childbirth

The Museum's collections contain a number of knives from around the world, which were used to cut the umbilical cord after childbirth. These knives have been made from different materials in different places, reflecting the different materials available and different cultural and medical beliefs.

The iron knife pictured below is from Mozambique. It was purchased by the Museum in 1937.



Knife, Mozambique; 1937.52.31

The bamboo knife pictured below was collected in 1901–1902 in the Kampong area of Malaysia or Thailand where umbilical cord knives were made of bamboo, as it was believed that metal knives would cause fever.



Knife, Malaysia/Thailand, 1902.42.2

Materials for Surgical Instruments

Medical instruments can be made from almost any material. Whilst wood and metal are the most common materials for the instruments on display in the Museum, a wide variety of other materials are also represented, including naturally sharp materials such as thorns and sharks' teeth.



Knife, Australia; 1900.55.225.1

This knife from the Northern Territory of Australia has a blade of flaked, recycledglass, a gum handle, and a paper-bark sheath. It was donated to the Museum in 1900.

References and further reading

HILTON SIMPSON, MELVILLE, 'Some Arab and Shawia Remedies and Notes on the Trepanning of the Skull in Algeria', *Journal of the Royal Anthropological Society of Great Britain and Ireland*, Vol 43 (1913), pp. 706–721.

KIRKUP, JOHN, 'Shawiya Berber Surgical Instruments in the Aures Mountains, 1913-1922', *Congress Proceedings of the International Society for History of Medicine* (1998).

LOUGHBOROUGH, JOHN, 'Notes on the Trepanation of Prehistoric Crania', *American Anthropologist*, Vol 48, no 3 (1946), pp. 416–422.

The objects featured in this Information sheet can be found at the following locations:

Lower Gallery (first floor)

Cases L85A, L86A and L87A – Surgical Instruments

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