



Surgical Skills Quiz

SURGEONS' HALL
MUSEUMS



1. Trainee surgeons can specialise in different types of surgery. Match the following areas of the body to the surgical speciality, for example, Kidneys and bladder = Urology.

Body Areas

kidneys & bladder

arteries & veins

heart & lungs

bone & skeleton joints

neck & airways

injuries of the face

brain & spinal cord

surgery on children

injuries, including
burns, to the skin

Surgical Specialities

Vascular

Cardiothoracic

Urology

Maxillofacial

Neurosurgery

Otolaryngology (ENT)

Paediatric

Plastic

Orthopaedic

2. In the 19th century, the Edinburgh surgeon, James Young Simpson, pioneered pain-relief for medical procedures. Which chemical did he demonstrate, by using it on himself first, to have anaesthetic properties that would enable pain-free surgery for patients?

Ether

Chloroform

Ethanol

Nitrous oxide (laughing gas)



3. In the past, surgeons would use a length of 'catgut' to stitch body tissues together after surgery. 'Catgut' was made of the dried twisted intestines of sheep (nothing to do with cats). What is the surgical term for the material used to close a wound?

Resection

Clamp

Retractor

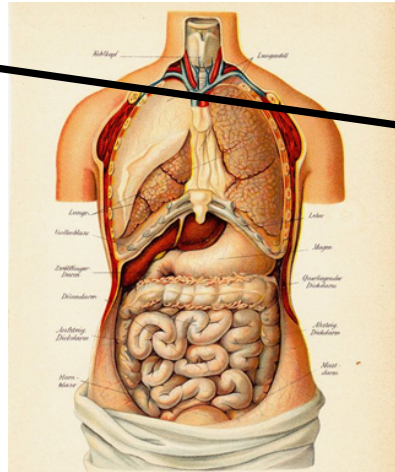
Suture





4. Many medical words come from ancient Greek and Latin languages. Can you match the body parts with their medical terms, for example, chest cavity = thoracic)?

- chest cavity
- stomach
- heart
- kidney
- lungs



- cardio
- thoracic
- renal
- gastric
- pulmonary

5. The venom of a deathstalker scorpion is being used by to highlight cancer cells that form tumours in the human brain. A chemical in the venom has been found to only attach to cancer cells and scientists then add a fluorescent colour to the venom making the cells light up. This will allow surgeons to identify the cancer cells they need to remove.

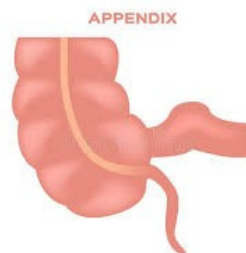
Name the instrument that is inserted into the body and allows the surgeon to observe an internal organ in detail?



- clamp forceps endoscope rongeur

6. Appendicitis is a painful swelling of the appendix, which is located at the start of the large intestine. A damaged appendix can be removed using laparoscopy. What is laparoscopic surgery more commonly known as?

- realignment
- intestine replacement
- key hole surgery
- resection



7. In a healthy human heart, doctors describe the sound made by a beating heart as a 'lub' and a 'dub' (lub-dub). What causes the 'lub-dub' sound of a heart beat?

- heart muscles squeezing
- blood moving into the heart
- the heart valves closing
- blood picking up oxygen





Answers and teachers notes: Surgical Skills Quiz

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1. arteries & veins = vascular, heart & lungs= cardiothoracic, bones & skeleton joints = orthopaedic, neck & airway = Otolaryngology (ENT), injuries of the face = Maxillofacial, brain & spinal cord = Neurosurgery, surgery on children = paediatric, injuries, including burns, to the skin = plastics.
2. Chloroform. Before the 19th century patients were awake for all operations as anaesthetics had not been discovered. James Young Simpson started looking for an alternative. He experimented with liquids that gave off a gas you would breathe in. He tried them out on himself. He fell asleep under his dining table! Chloroform was very easy to administer, a few drops from the bottle would be put on a cloth over the patients mouth and nose. When the patient breathed in the fumes they fell asleep. The discovery of anaesthetics meant surgery could now be performed pain free. This opened up many possibilities for operations. Before anaesthetic surgeons rarely operated on a patient's abdomen. Not long after the discovery of anaesthetics the first successful removal of an appendix was performed.
3. Suture. A suture is the material used to join together the open parts of a wound. Sutures are typically applied using a needle. Suture materials can be classed as either absorbable or non-absorbable. Absorbable sutures do not require the surgeon to remove them, as enzymes in your body naturally digest them. Non-absorbable sutures will need to be removed by the surgeon at a later date or in some cases may be left in permanently. Alternatives to suturing, include staples for closing large wounds, paper stitches / steri-strips (butterfly stitches) and surgical glue for head wounds.
4. Stomach = gastric, heart = cardio, kidney = renal, lungs = pulmonary.
5. Endoscope. An endoscopy procedure is used in medicine to look inside the body. The procedure uses an endoscope (long, thin tube with a built-in camera) to examine the inside of a hollow organ or cavity in the body. Unlike many other medical imaging techniques, endoscopes are inserted directly into the body.
6. Keyhole surgery. Laparoscopy (keyhole surgery / minimally invasive surgery) is a type of surgical procedure that allows a surgeon to access the inside of the abdomen and pelvis without having to make large incisions (cuts) in the skin. The advantages of this technique over traditional open surgery include, a shorter hospital stay and faster recovery time for the patient. Less pain and bleeding after the operation, and reduced scarring.
7. The heart valves closing.