

ABDOMINAL INCISIONS

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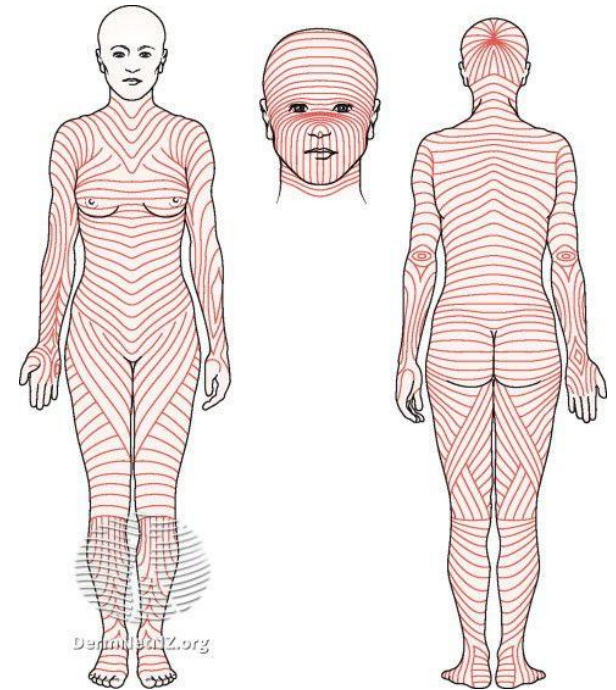
Yaqeen adaileh

Tala jaouni

Eyad farfoura

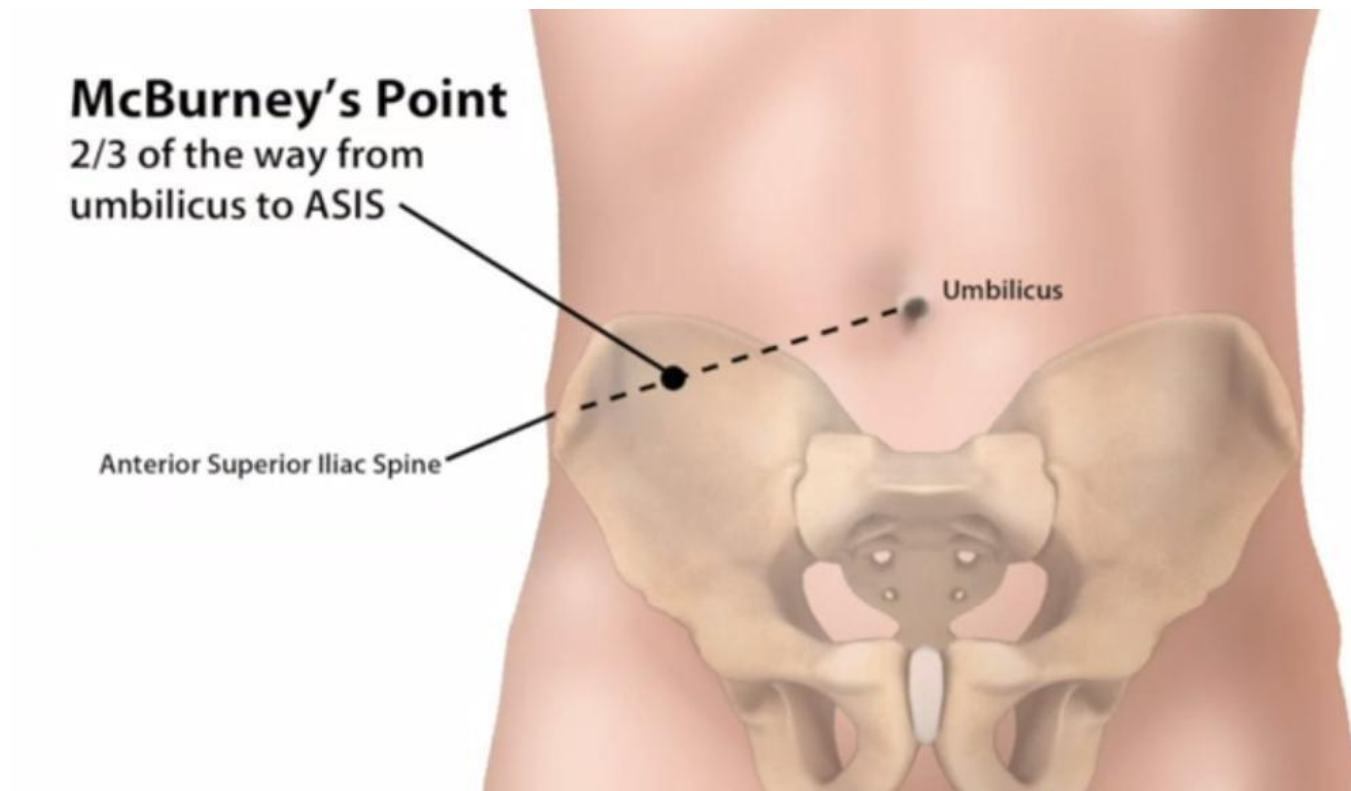
The ideal incision

- The ideal incision should allow for consistently good access, following the larger lines for maximal wound strength and minimal scarring, muscle should be split not cut, and being easily opened and closed.
- The larger lines:- lines of skin tension parallel to the neutral orientation of the collagen fibers in the dermis and underlying muscle fibers



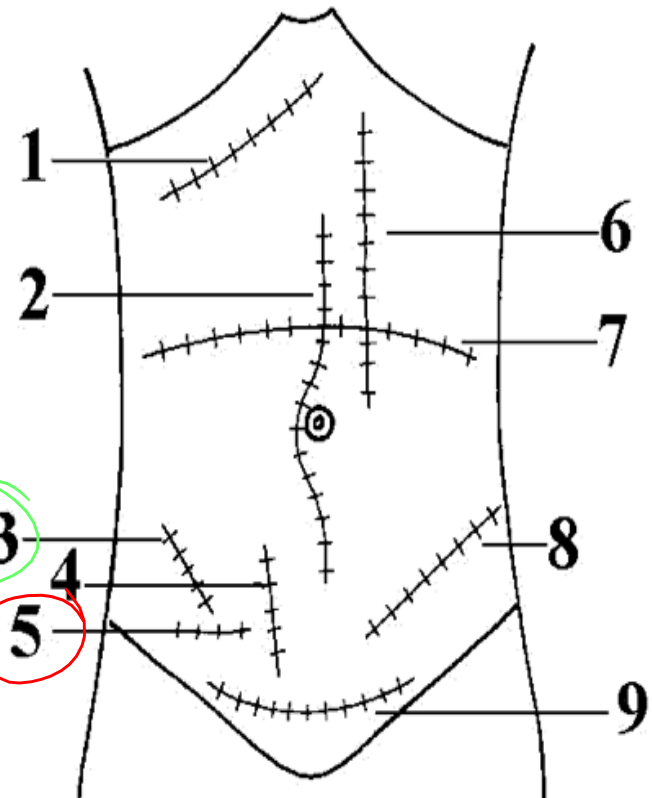
McBurney's point

This point corresponds to the base of the appendix where it is attached to the cecum (beginning of the large intestines)



Gridiron and lanz incisions

- The gridiron and lanz incisions are both incisions that can be used to access the appendix predominantly for appendectomy
- The lanz incision is a transverse incision while the gridiron is oblique
- While the gridiron incision is oriented along the Langer Lines the lanz incision produces much more aesthetically pleasing results as the scar is hidden beneath the bikini lines (Cosmetic)



Gridiron and lanz incisions

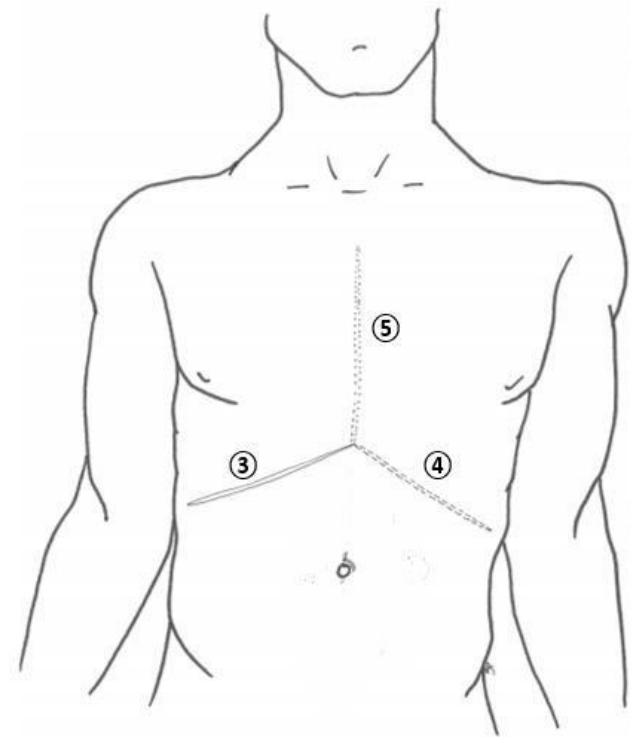
- The incisions cut through:-
- Skin
- subcutaneous fat and fascia
- external and internal obliques
- transversus abdominis
- transversalis fascia.

Disadvantages include:-
the risk of injury to the
ilioinguinal and iliohypogastric nerves

Both incisions are indicated for appendectomy

Kocher incision

- An incision made parallel to the right subcostal margin to access the underlying liver and biliary tree (3 on its own)
- Mercedes Benz incision the Chevron incision with a vertical incision and break through the xiphisternum (3+4+5)
- It may be mirrored on the contralateral side
- to provide access to the spleen or performed bilaterally as a Rooftop (chevron) incision to provide efficient access to organs such as the pancreas and biliary tree within the transpyloric plane (3+4)



Kocher incision

Skin

- Superficial fascia:
- 1. Camper's fascia (fatty layer) 2. Scarpa's fascia (membranous layer)*
- Lateral half : External oblique / Internal oblique / Transversus abdominis*
- Medial half: anterior rectus sheath / Rectus abdominis / posterior rectus sheath *
- Transversalis fascia*
- Extraperitoneal fat*
- peritoneum

Disadvantages include:-

the risk of injuring the superior epigastric vessels, and lateral extension of the incision risks disruption of intercostal nerves.

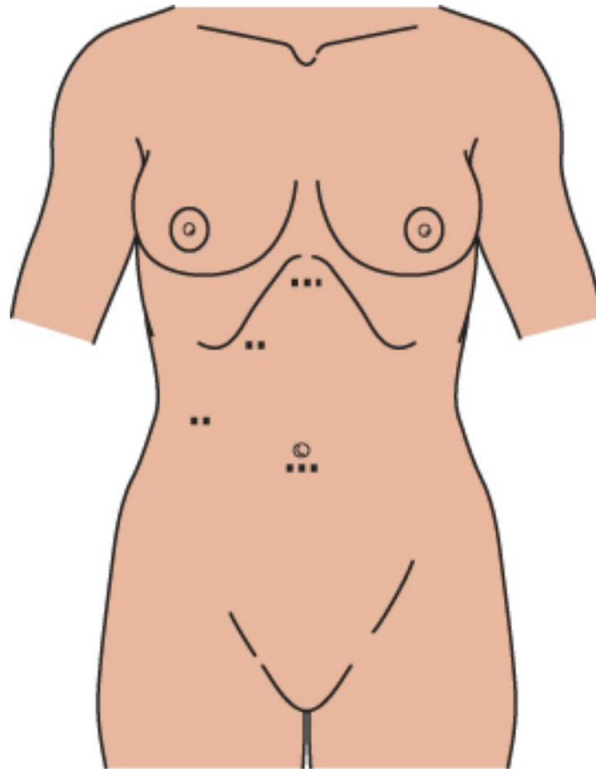
Indications of the Kocher incision: gall bladder and biliary tract operation (usually open cholecystectomy)

Chevron incisions may be used for oesophagectomy, gastrectomy, bilateral adrenalectomy, hepatic resections, or liver transplantation

Mercedes benz may be used for the same indications as the Chevron incision, and diaphragmatic hernia, however classically seen in liver transplantation

Laparoscopic cholecystectomy

Four trocar incisions:



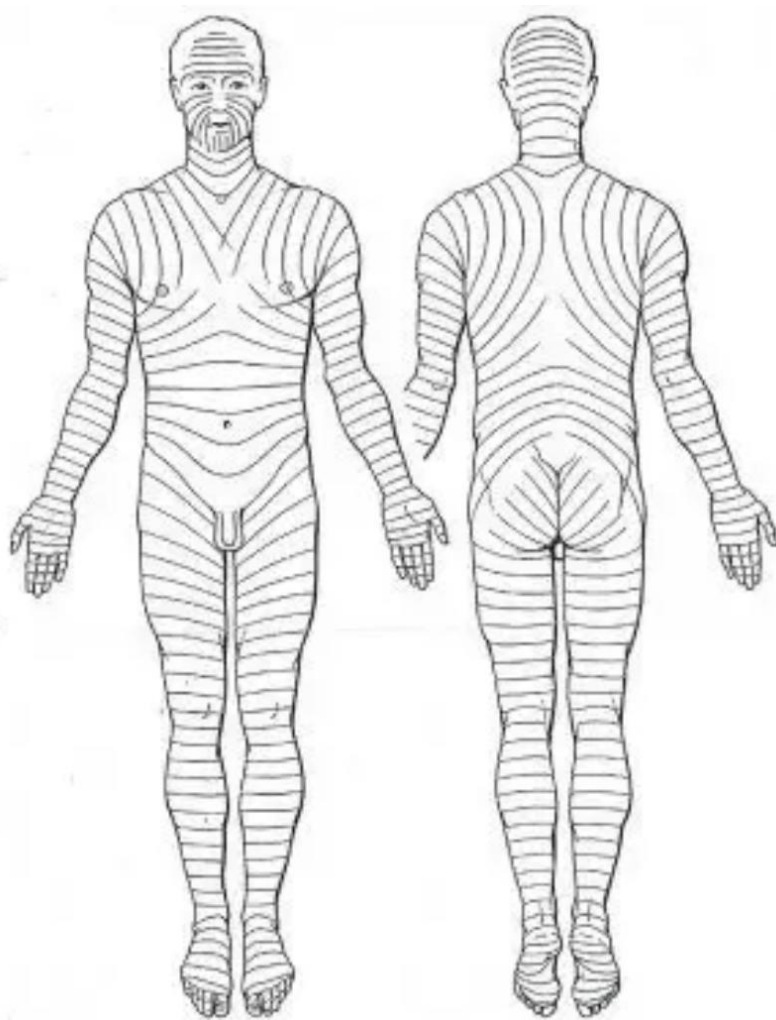
Midline laprotomy

- Incision down the middle of abdomen along and through the linea alba:
- It will encounter the following layers of tissue
- Skin
- Subcutaneous fatty layer (Camper's fascia)
- Membranous fascia (Scarpa's)
- Linea alba* Transversalis fascia
- Preperitoneal fat
- Parietal peritoneum

Disadvantages include patients experiencing more pain than they would from a transverse incision, particularly during deep breathing postoperatively, and the incision is perpendicular to the Langer's skin tension lines resulting in poorer cosmesis.

commonly used for procedures requiring emergency laparotomy, such as:-

- faecal peritonitis secondary to malignant intestinal perforation
- ischaemic bowel
- trauma

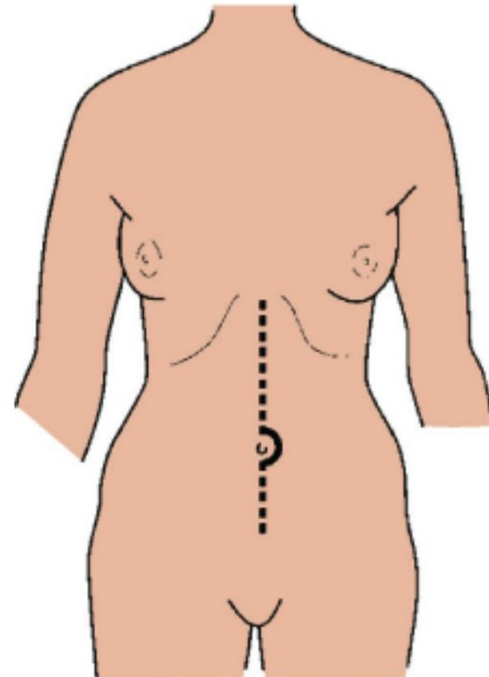


This incision generally provides the best visualization and intra-abdominal access

Immediate complications of a midline laparotomy incision may include
anaesthetic difficulties,
haemodynamic instability,
primary haemorrhage from cut vessels and
iatrogenic injury to surrounding tissues and viscera

Midline laparotomy

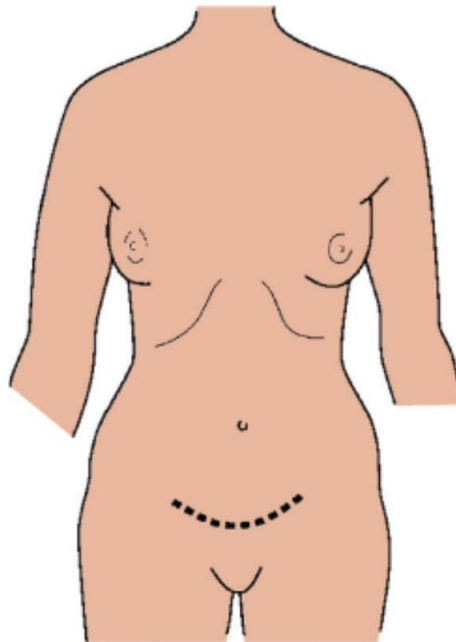
Incision down the middle of abdomen along and through the linea alba:



Pfannnestiel

Pfannenstiel (“fan-en-steel”)

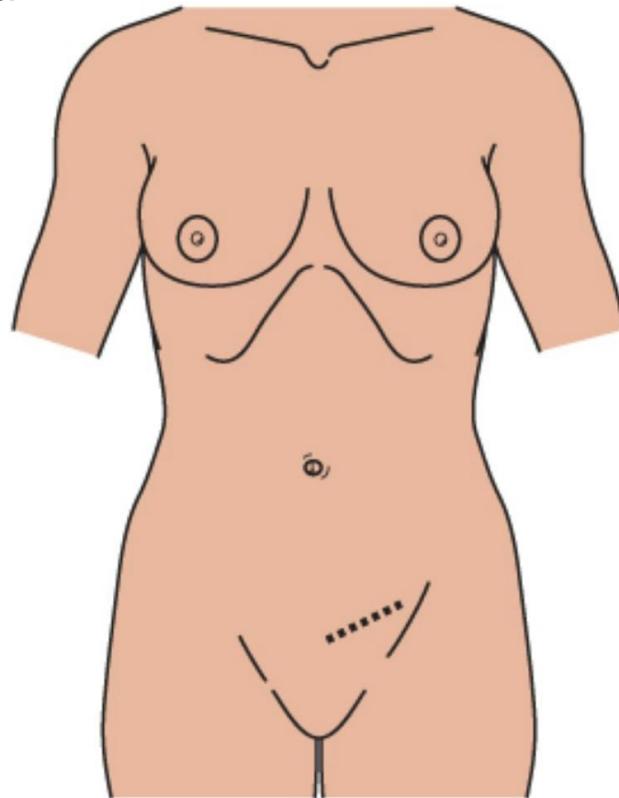
Low transverse abdominal incision with retraction of the rectus muscles laterally; most often used for gynecologic procedures:



hernia

Inguinal hernia repair (open)

Inguinal hernia repair



Complications of abdominal surgical incisions

- Generic early complications declare themselves in the hours and days following the operation and may include:
atelectasis, postoperative pneumonia, urinary tract infection, oliguria, bedsores and deep vein thrombosis

Specific early complications include:
reactionary haemorrhage where small vessels ooze and intra-operative haemostasis fails once the blood pressure normalises, intra-abdominal collection, postoperative ileus and wound infection.

Late complications include the development of an incisional hernia,