BASIC SURGICAL INSTRUMENTS

Fundamentals of Primary Health Care B
BASIC SURGICAL INSTRUMENTS

• Basic laparotomy instruments are essential to accomplish most types of general surgery. Each instrument can be placed into one of the four following basic categories:
  – Retracting and Occluding Instruments
  – Cutting and Dissecting Instruments
  – Clamping and Occluding Instruments
  – Grasping and Holding Instruments
Retracting and Exposing Instruments

- used to hold back or retract organs or tissue to gain exposure to the operative site. They are either "self-retaining" (stay open on their own) or "manual" (held by hand). When identifying retractors, look at the blade, not the handle.
Retracting and Exposing Instruments

- A Deaver retractor (manual) is used to retract deep abdominal or chest incisions. Available in various widths.
Retracting and Exposing Instruments

• A Richardson retractor (manual) is used to retract deep abdominal or chest incisions
Retracting and Exposing Instruments

- An **Army-Navy retractor** (manual) is used to retract shallow or superficial incisions. Other names: USA, US Army.
Retracting and Exposing Instruments

• A **goulet** (manual) is used to **retract** shallow or superficial incisions.
Retracting and Exposing Instruments

• A malleable or ribbon retractor (manual) is used to retract deep wounds. May be bent to various shapes.
Retracting and Exposing Instruments

- A Weitlaner retractor (self-retaining) is used to retract shallow incisions.
Retracting and Exposing Instruments

- A **Gelpi** retractor (self-retaining) is used to retract shallow incisions.
Retracting and Exposing Instruments

- A Balfour with bladder blade (self-retaining) is used to retract wound edges during deep abdominal procedures.
Cutting and Dissecting Instruments

- are sharp and are used to cut body tissue or surgical supplies.

Knife Handle, Scissors
(left to right)
Cutting and Dissecting Instruments

- 7 handle with 15 blade (deep knife) - Used to cut deep, delicate tissue.
- 3 handle with 10 blade (inside knife) – Used to cut superficial tissue.
- 4 handle with 20 blade (skin knife) - Used to cut skin.

#7, #3, #4 (left to right)
Cutting and Dissecting Instruments

- **Straight Mayo scissors** - Used to cut suture and supplies. Also known as: Suture scissors.

EX: Straight Mayo scissors being used to cut suture.
Cutting and Dissecting Instruments

- **Curved Mayo scissors** - Used to **cut** heavy tissue (fascia, muscle, uterus, breast). Available in regular and long sizes.
Cutting and Dissecting Instruments

- **Metzenbaum scissors** - Used to cut delicate tissue. Available in regular and long sizes.
Clamping and Occluding Instruments

• are used to compress blood vessels or hollow organs for hemostasis or to prevent spillage of contents.
Clamping and Occluding Instruments

- A hemostat is used to clamp blood vessels or tag sutures. Its jaws may be straight or curved. Other names: crile, snap or stat.
Clamping and Occluding Instruments

- A **mosquito** is used to **clamp** small blood vessels. Its jaws may be straight or curved.

hemostat, mosquito (left to right)
Clamping and Occluding Instruments

- A **Kelly** is used to clamp larger vessels and tissue. Available in short and long sizes. Other names: Rochester Pean.

Kelly, hemostat, mosquito (left to right)
Clamping and Occluding Instruments

- A burlisher is used to clamp deep blood vessels. Burlishers have two closed finger rings. Burlishers with an open finger ring are called tonsil hemostats. Other names: Schnidt tonsil forcep, Adson forcep.
Clamping and Occluding Instruments

• A right angle is used to clamp hard-to-reach vessels and to place sutures behind or around a vessel. A right angle with a suture attached is called a "tie on a passer." Other names: Mixter.
Clamping and Occluding Instruments

- A hemoclip applier with hemoclips applies metal clips onto blood vessels and ducts which will remain occluded.
Grasping and Holding Instruments

- are used to hold tissue, drapes or sponges.
Grasping and Holding Instruments

- An **Allis** is used to grasp tissue. Available in short and long sizes. A "Judd-Allis" holds intestinal tissue; a "heavy allis" holds breast tissue.
Grasping and Holding Instruments

- A Babcock is used to grasp delicate tissue (intestine, fallopian tube, ovary). Available in short and long sizes.
Grasping and Holding Instruments

- A **Kocher** is used to grasp heavy tissue. May also be used as a clamp. The jaws may be straight or curved. Other names: Ochsner.
A Foerster sponge stick is used to grasp sponges. Other names: sponge forcep.

EX: Sponge sticks holding a 4 X 4 and probang.
Grasping and Holding Instruments

• A dissector is used to hold a peanut.

EX: Dissector holding a peanut.
Grasping and Holding Instruments

- A Backhaus towel clip is used to hold towels and drapes in place. Other name: towel clip.
Grasping and Holding Instruments

- **Pick ups, thumb forceps and tissue forceps** are available in various lengths, with or without teeth, and smooth or serrated jaws.
Grasping and Holding Instruments

- Russian tissue forceps are used to grasp tissue.
Grasping and Holding Instruments

- **Adson pick ups** are either smooth: used to grasp delicate tissue; or with teeth: used to grasp the skin. Other names: Dura forceps.
Grasping and Holding Instruments

- Long smooth pick-ups are called **dressing forceps**. Short smooth pick-ups are used to **grasp** delicate tissue.
Grasping and Holding Instruments

- DeBakey forceps are used to grasp delicate tissue, particularly in cardiovascular surgery.
Grasping and Holding Instruments

- **Thumb forceps** are used to **grasp** tough tissue (fascia, breast). Forceps may either have many teeth or a single tooth. Single tooth forceps are also called "rat tooth forceps."

![Single tooth forceps, many teeth forceps (top to bottom)](image)
Grasping and Holding Instruments

- **Mayo-Hegar needle holders** are used to hold needles when suturing. They may also be placed in the **sewing** category.

short, medium & long
(top to bottom)

EX: Needle holder with suture.