

About Surgical Instruments

Usage of Scissors

Surgical scissors are used for cutting, dissecting tissues, to cut bandages and sutures. Each surgical procedure has a special pair of scissors that is used to perform the intended task. Surgical scissors differs in value and durability from the regular scissors. They come in varieties depending on their use such as bandage scissors, dissecting scissors, iris scissors, operating scissors, stitch scissors, tenotomy scissors and plastic surgery scissors.

Material generally used for scissors is high carbon stainless steel because recommended hardness requirement is above 50HRC.

We go through the function and use of some of the scissors generally used in the medical field:

Operating Scissors

These are used for general purposes like in surgical kits, for cutting sutures, gauze and during surgical operations.

Available in different blades style combination like sharp/sharp, sharp / blunt, blunt/blunt, straight, curved, with or without Tungsten Carbide tips etc.



Stitch Scissors

These are used to cut the sutures, specially hooked shape lower blade helps in doing the task.

Sometimes serrations are produced to avoid slippage



Iris scissors

These scissors are especially designed with very fine sharp blades for performing different functions during eye surgery operations.



These are made of high carbon stainless steel.
Some of the industrial use of this type of scissors made of carbon steel includes fine cutting in embroidery.

Dissecting Scissors

Different types of dissecting scissors are available for use according to typical applications.
Metzenbaum scissors, Iris scissors, mayo scissors, probe scissors etc all are different types of dissecting scissors.



Bandage Scissors

These are especially designed scissors with one blunt blade and one probe blade for the smooth movement without damaging the skin during bandage cutting.
They have serrations on lower blade to avoid slippage.



Usage of Forceps

In medical field, forceps are used for grasping tissues, blood vessels, holding organs. These are commonly made from Stainless Steel (Martensitic).
Normally they are either with locks (ratchet) such as Kelly forceps, mosquito forceps, Crile forceps or without locks (ratchets) such as Thumb dressings forceps.
Different types of surgical instruments are used for number of functions such as:

- Clamping
- Grasping
- Holding
- Cutting
- Dissecting

- Dilating
- Suctioning etc.

Instruments must be inspected before , during, and after the surgical / examination procedure.

Main Risks associated with the surgical instruments use are:

- Infection due to improper sterilization techniques.
- Improper use of instrument by operator.
- Leaving an instrument inside patient's body.
- Use of defective instrument.

Dressing Forceps

These forceps are normally used during dressing of wounds and removal of dressings.

These are manufactured with straight, curved and with special angled tips for various tasks during operations.

Very fine delicate dressing forceps are used in eye surgery.



Hemostats Forceps

Such forceps are used to prevent the flow of blood from operating area (blood vessels) during surgery i.e. for controlling hemorrhage, for grabbing and holding.

All of the hemostats forceps are with locking mechanism called ratchets to control the grasping action of the instrument.

Some of the types include Crile, Kelly, Mosquito, mixer, splinter etc.

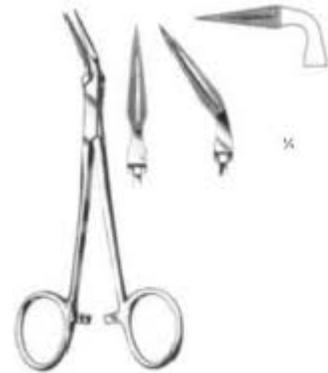


Splinter Forceps

Such forceps are used for special purposes like removing sharp pointed pieces of bones (splinter) from flesh, to handle sutures, and to manipulate very narrow areas due to their fine tip and triangular shape.

These are manufactured with smooth and serrated tips, curved, straight with or without ratchets.

Different types of splinter forceps includes carmalt, Hunter, Stieglitz etc.



Sponge Forceps

Due to their holding shapes these are commonly used for clamping, holding, gripping, twisting tissues, inserting any external things into the body such as IUD.

Sponge forceps are extensively used in gynecological procedures like during abortion, sterilization, examinations and for handling sponges, gauzes, wipes etc.



Needle Holders

These are mainly used to hold needles during suturing procedure.

These are available with normal tips and with tungsten carbide tips (for more hard and firm needle grip with gold plated rings for identification from normal ones).

Usually these are with ratchets (automatic lock) to hold the needle during suturing.



Tissue Forceps

They differ with the dressing forceps due to their teeth in jaws. These teeth provides better grip to hold Tissues. The teeth are designed to avoid the damage to the tissues .
The types depend on shape of the forceps and number of teeth on both sides like adson tissue forceps 1×2 teeth, Adson brown tissue forceps 9×9 teeth, Allis tissue forceps (hinged ring-ratchet type).



Tubing Forceps (clamp)

These are used to introduce tubes in to small blood vessel during operation hence also know as tubing introducer.



Towel Forceps

These are used to hold/place pieces of towel/drapes at correct position in the operating area. They are very important surgical instruments tool and helps in recovering towels pieces after the operation.

