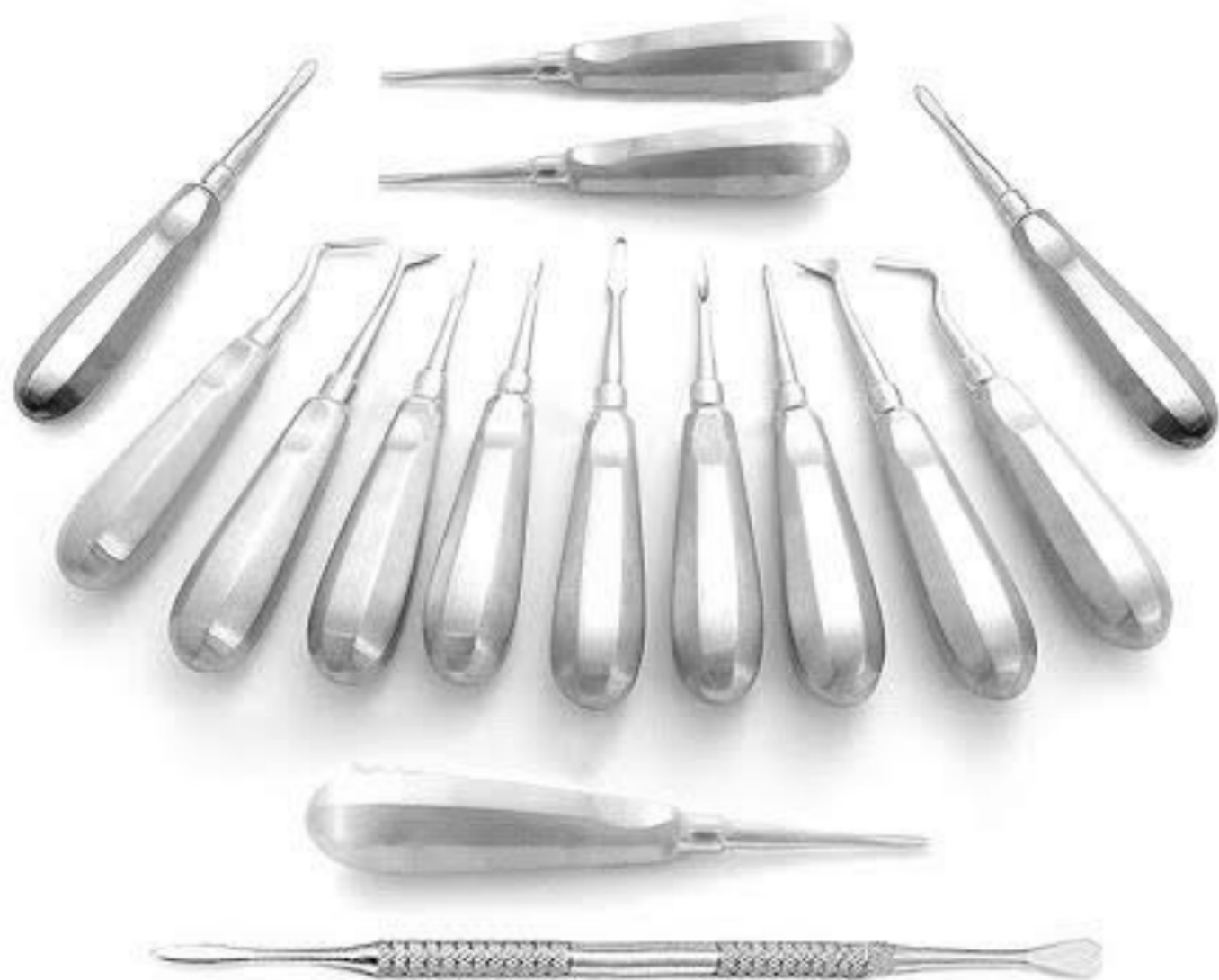


ELEVATORS





ELEVATORS

- **Are exo-levers, instruments design to elevate or luxate the teeth or roots from their bony socket in close or surgical method of extraction to force a tooth or root along the line of withdrawal.**

Line of Withdrawal

- Is the path along which the tooth or root will move out of its socket when minimal force is applied to it, and this line is primarily determined by root pattern (long axis of the tooth).

Point of Application

- Is the site on the root at which force must be applied to affect delivery, is determined by the line of withdrawal.
- There are buccal point of application, distal point of application, and mesial point of application.

Parts of Elevators

- I) **Handle:** this may be a continuation of shank or at right angle to it.
- II) **Shank.**
- III) **Blade:** This part engages the crown or root and transmit force to the tooth, bone or both. The working side of the blade is either **concave or flat.**



Mechanical Principles of Using Elevators

- The work principles as applied to the use of elevators may be that of:-
 - 1) Lever principle.
 - 2) Wedge principle.
 - 3) Wheel & axle principle.
 - 4) Combination of these principles.



Clinical Uses of Elevators:-

- 1) To luxate& remove teeth which can not be engaged or grasped by the beaks of forceps (e.g. impacted teeth , malposed teeth), also badly carious teeth, or teeth with heavy filling.**
- 2) To remove old roots& fractured roots& sectioned roots.**
- 3) To loosen teeth prior to use forceps.**
- 4) To split teeth which have had grooves cut in them, as in separation or roots.**

Clinical Uses of Elevators:-

- 5) To remove small amounts of bone to create point of application for the beaks of forceps, or removal of interseptal bone.**
- 6) Any tooth resisting normal extraction force by extracting forceps.**

Elevators commonly used:-

1- Straight Elevators

- Elevators in which the blade, shank, and the handle are straight. The working blade or end is blind & round, there are many types & sizes of straight elevators.



2-Copland's Chisel (Elevator):

- It is similar to straight elevator, but the working end is sharp & straight cut, used for chiseling the bone to create point of application or to split of teeth.
- It is of different sizes, size 1, size 2, size 3. Depending on the width of the working end.

