



# Lumbar spine positioning





# Kerrison Rongeur/ Kerrison punch Upcutter





Without Ejector Pin



Regular Footplate



With Ejector Pin



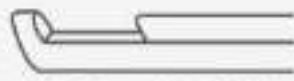
Thin Footplate



Detachable Model, Up Cutting



Detachable Model, Down Cutting



40° Forward Up Cutting



40° Forward Down Cutting

Detachable Shaft

# Disc forceps/ disc punch







# Nerve root probe





# Penfield disscetor



# Love nerve root retractor



# McCullough retractor

## Ramanis Retractor





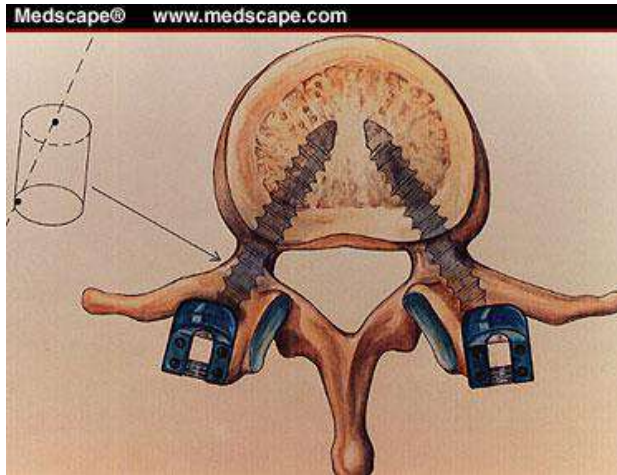
# Williams retractor for microdiscectomy





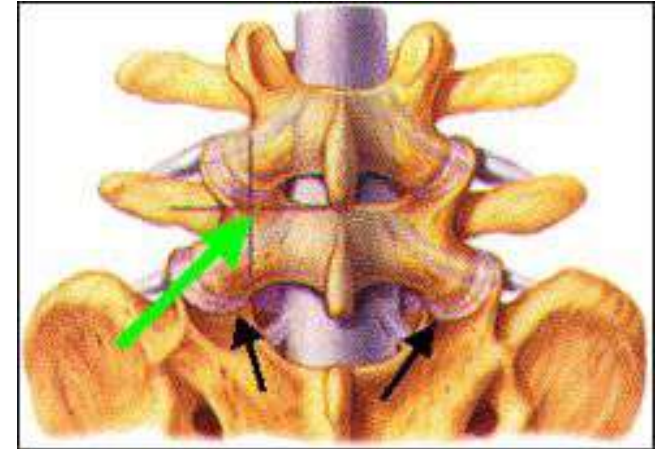


# Pedicle screw



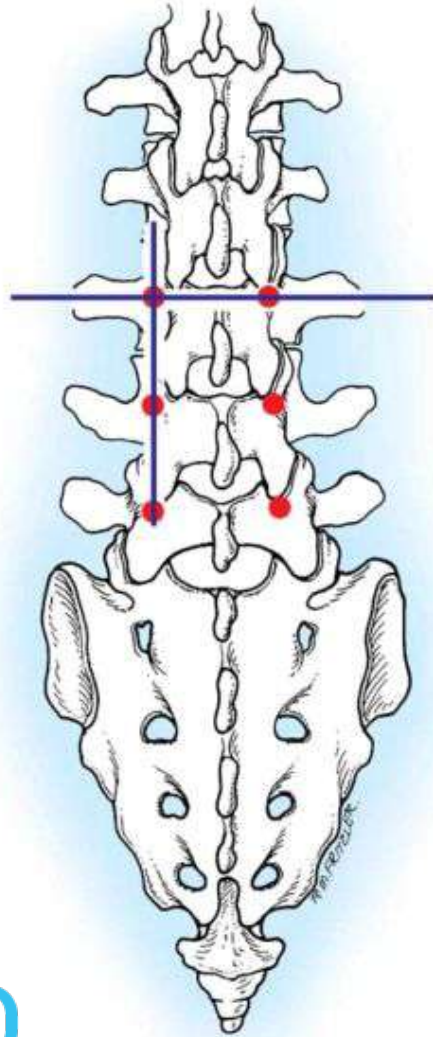
- To hold the vertebral body through the pedicle
- Purchase of the screw is maximum in the pedicle rather than in the vertebral body

# Entry point identification

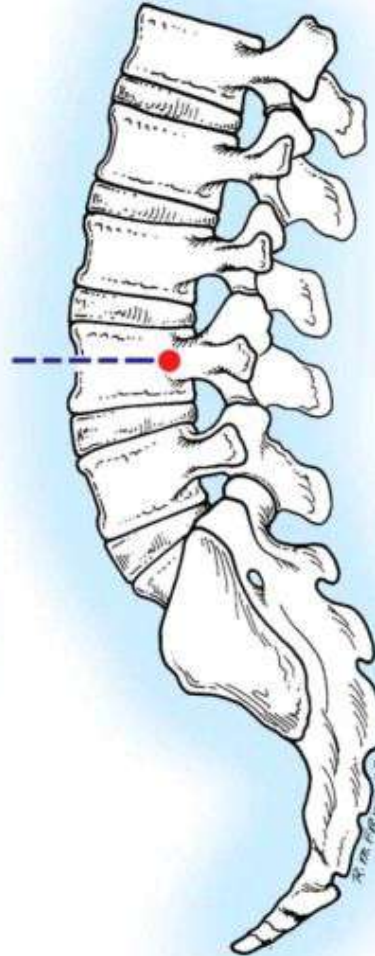


- Intersection technique
- Pars interarticularis technique.
- Mammillary process technique.

# Intersection technique



A



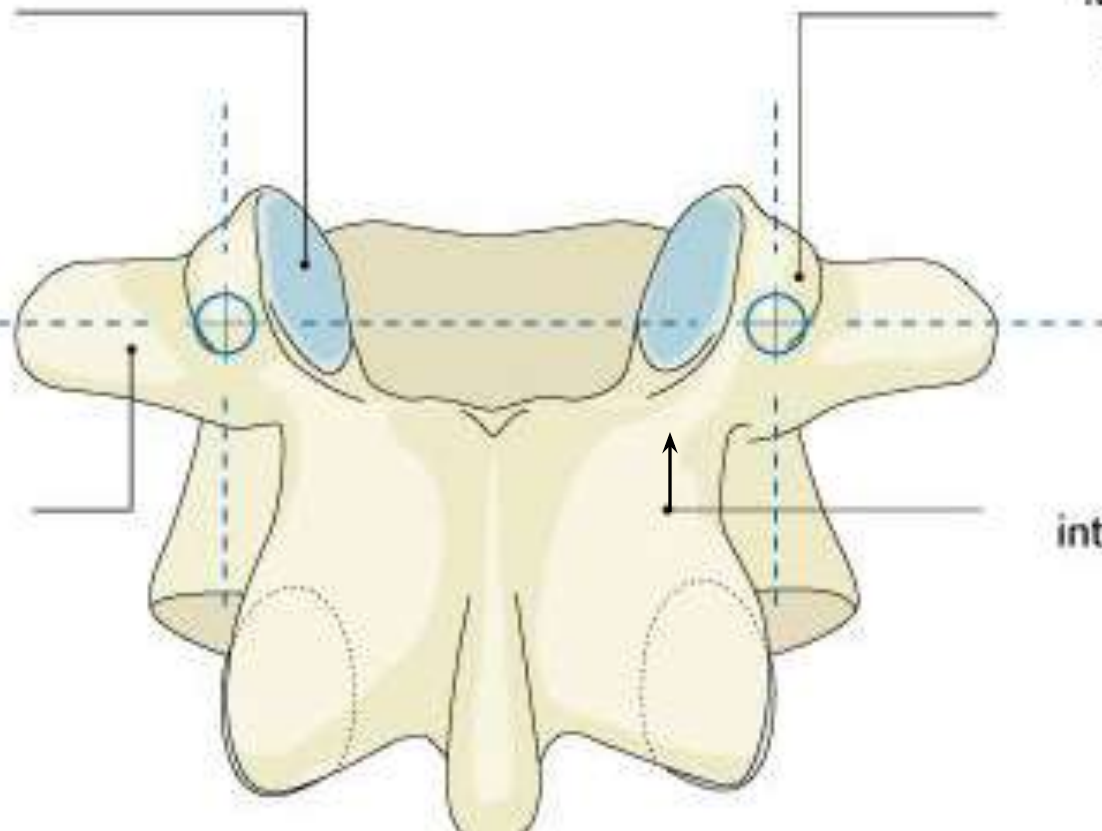
B

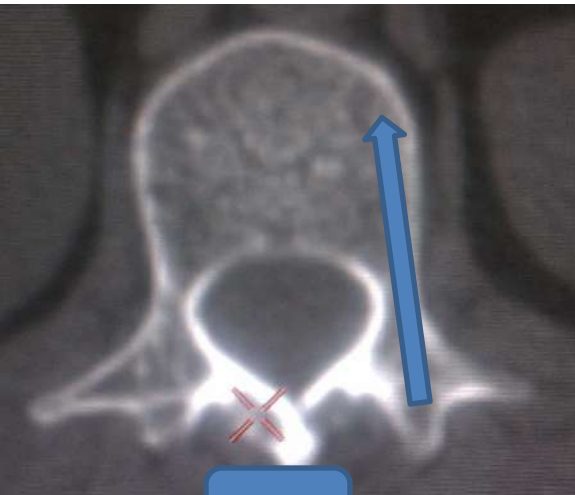
Superior  
articular facet

Mamillary  
process

Mid transverse  
process

Pars  
interarticularis

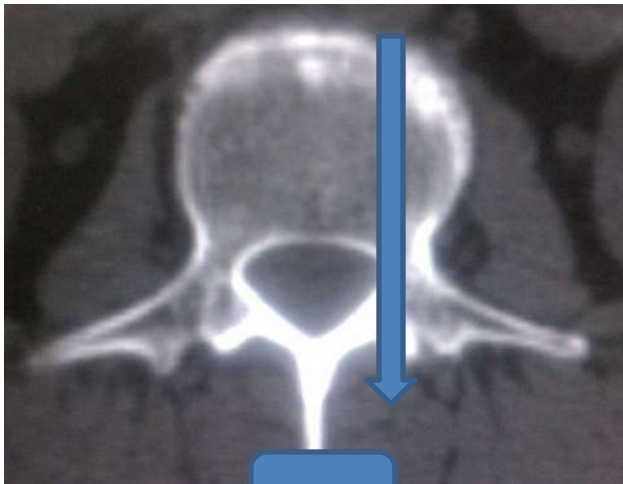




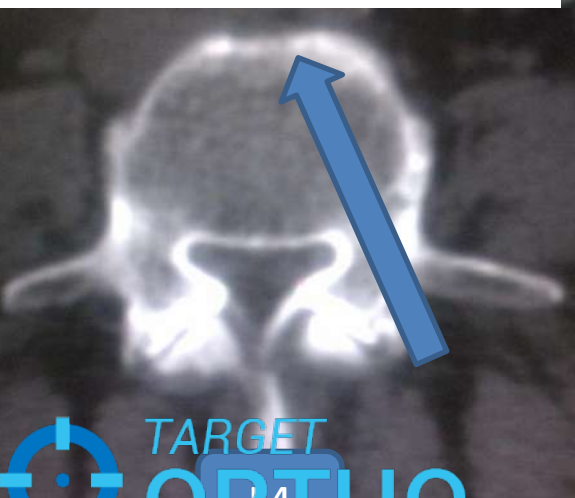
L1



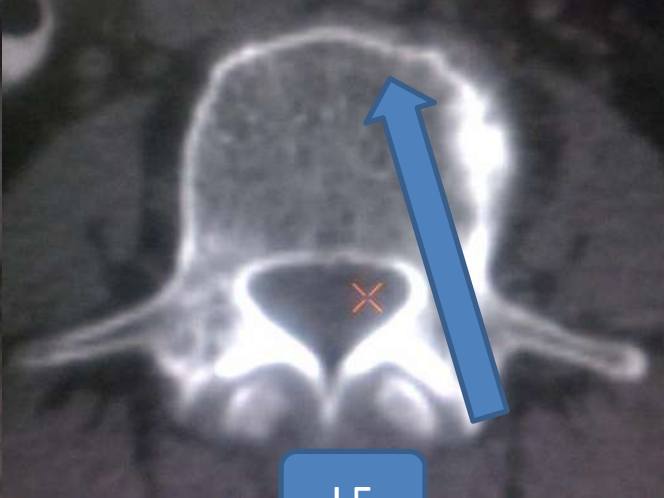
L2



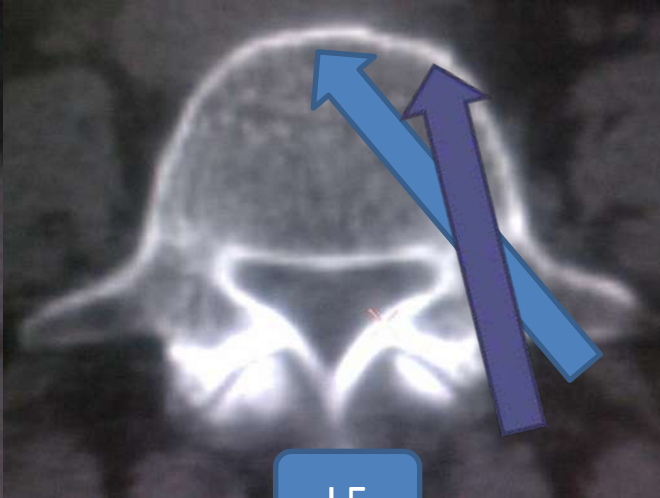
L3



L4

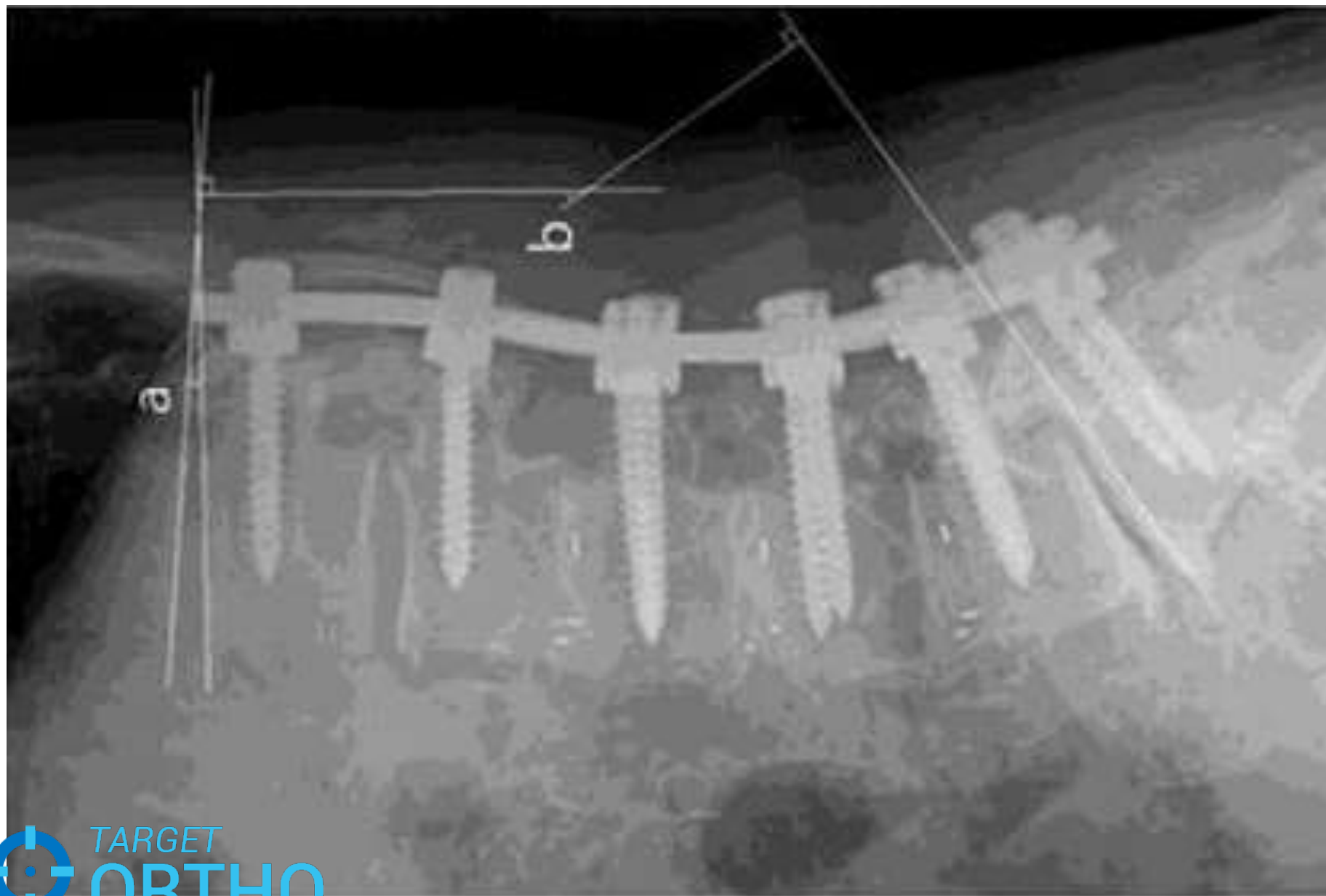


L5



L5









4.5mm Tap 624.214

5.5mm Tap 624.215

6.5mm Tap 624.216

7.5mm Tap 624.217

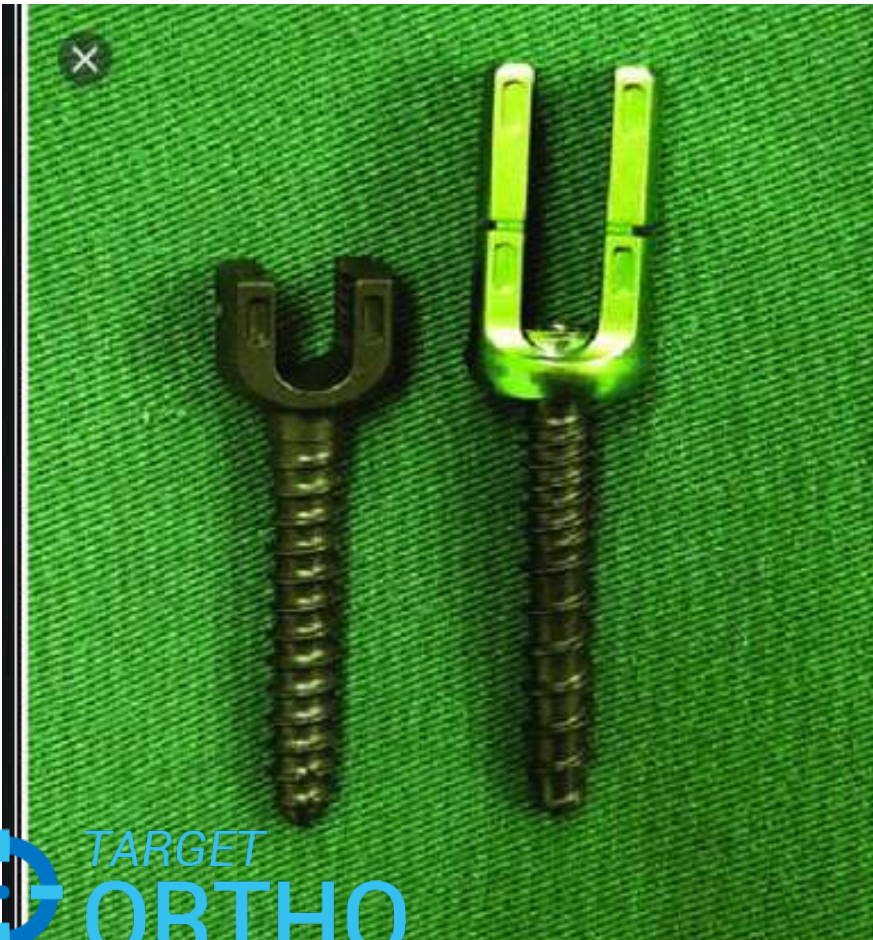




# Reduction screws

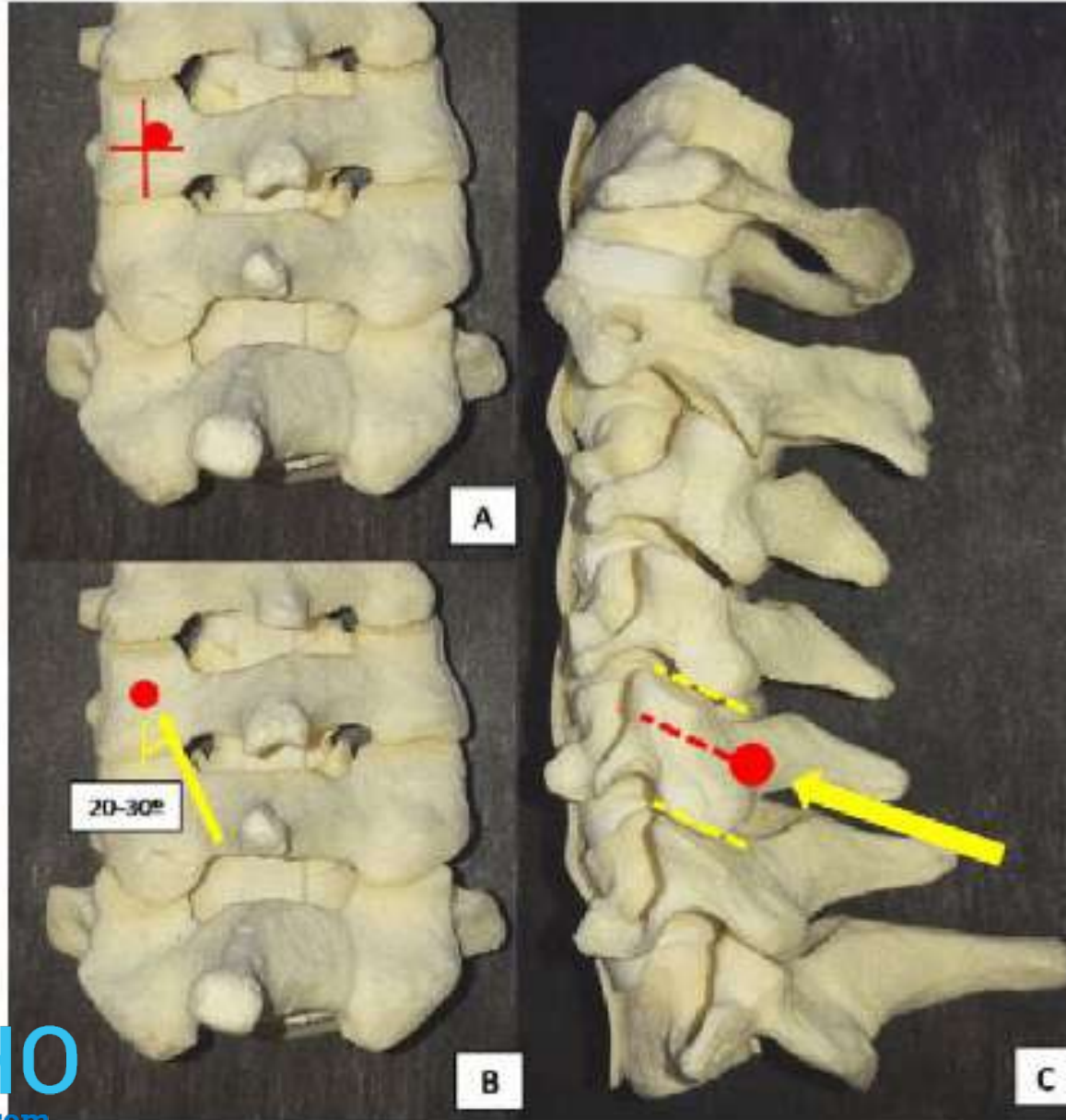


# Reduction screws



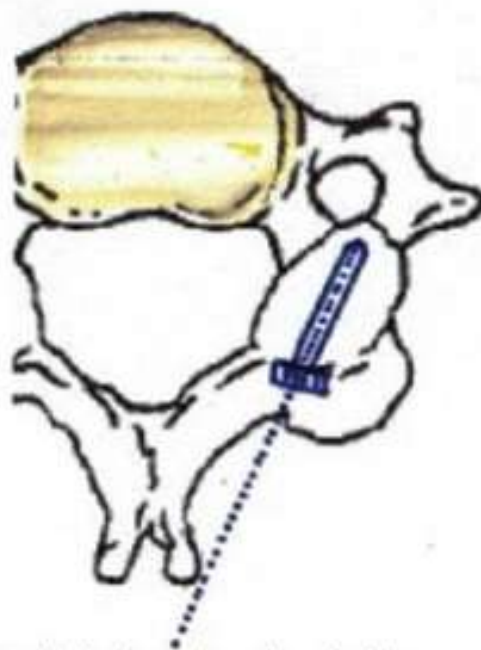


# Cervical lateral mass screws

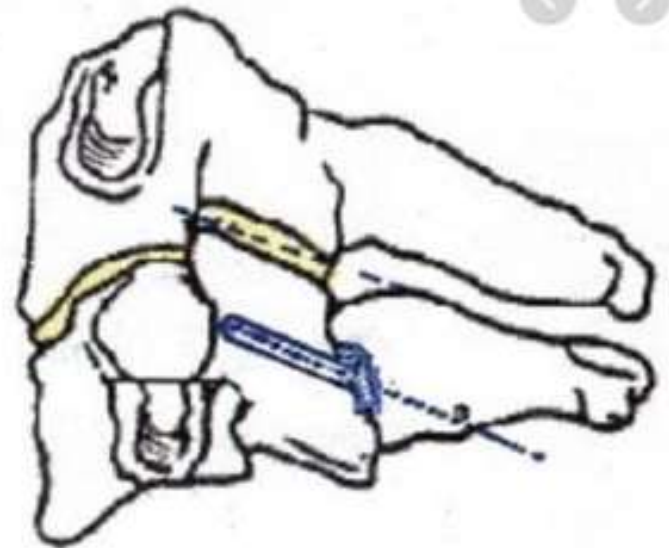




Entry point



Mediolateral orientation

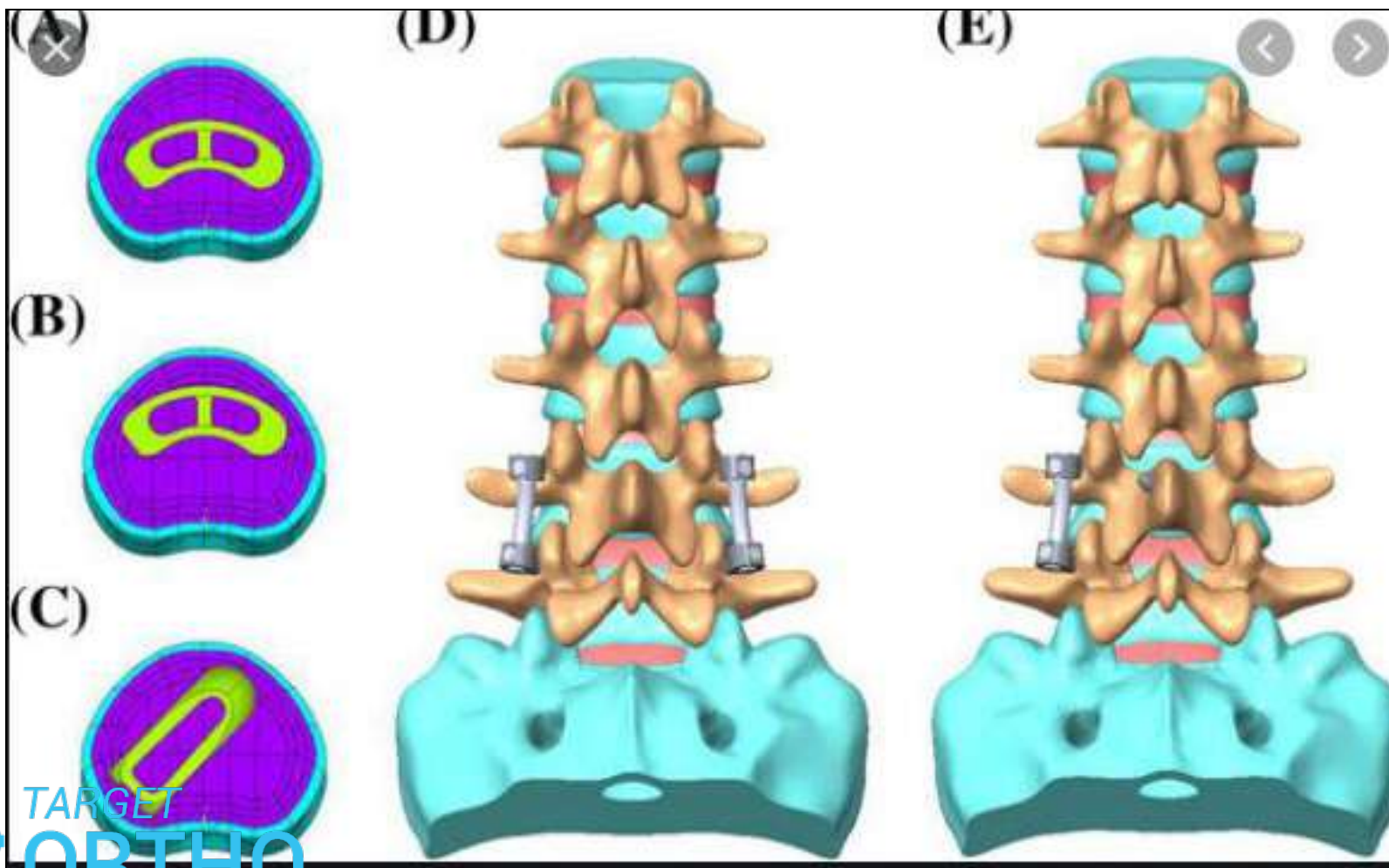


Vertical orientation



# Inter body Cage





# Harms cage

