

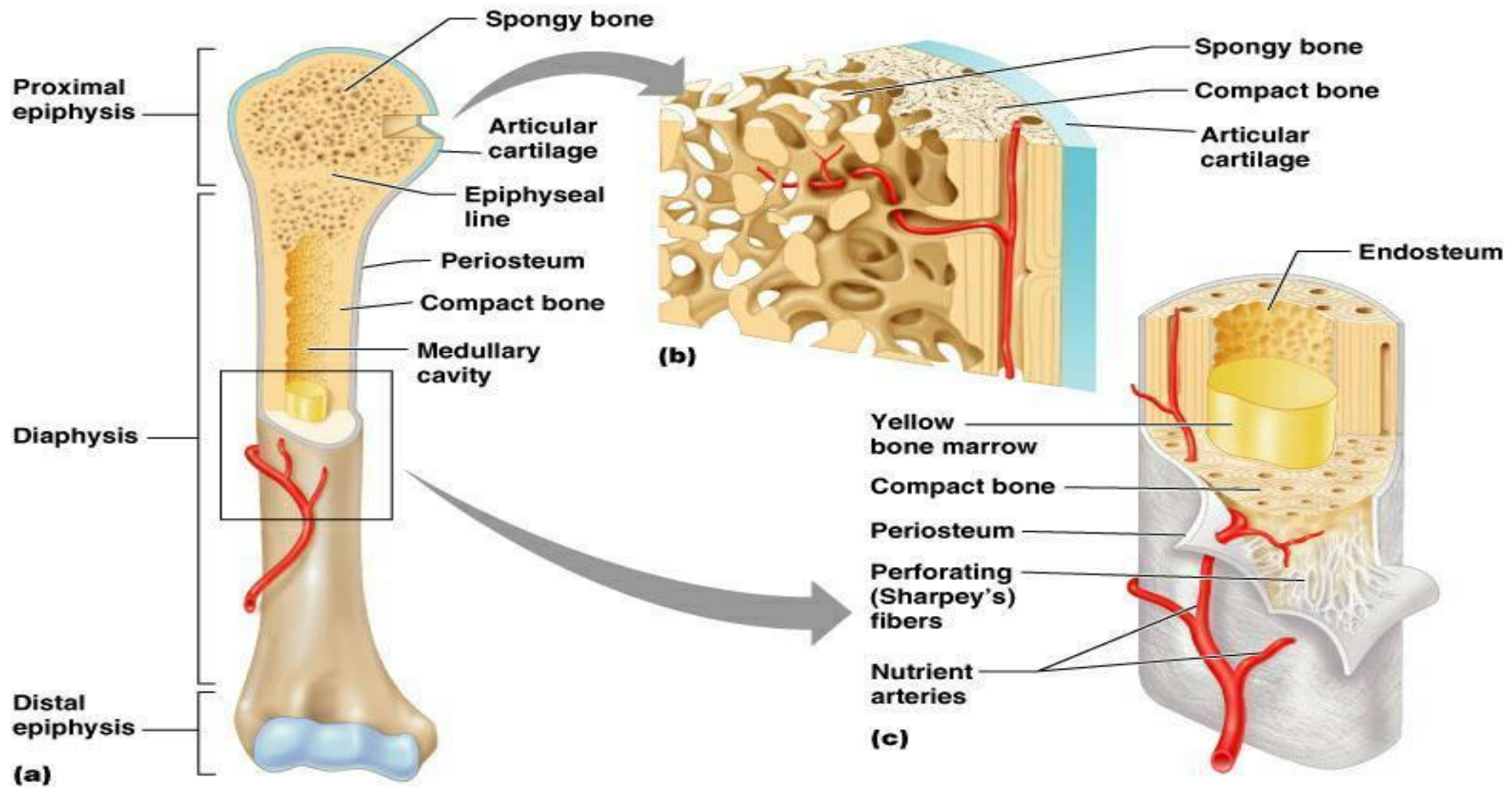
SCREW BASICS 101

THE DIFFERENCES BETWEEN ORTHOPEDIC
SCREWS

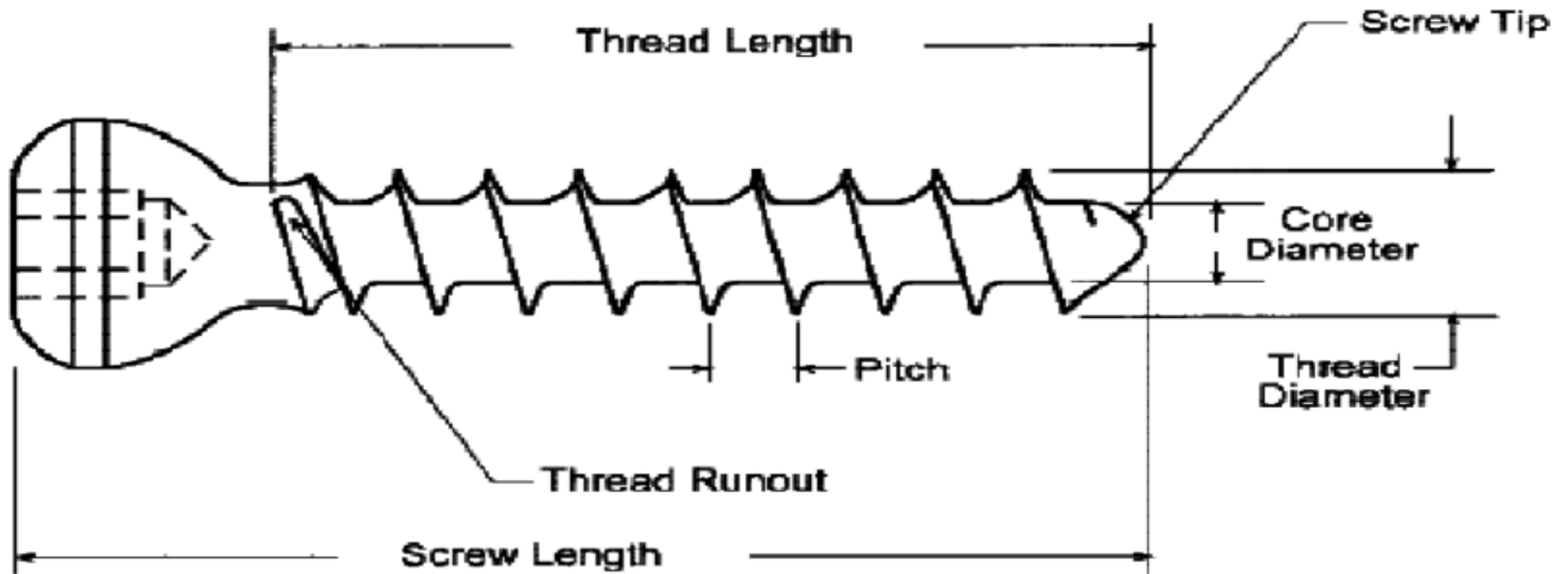
BASIC DIFFERENCES

- Cortical vs Cancellous
- Partial Thread vs Full Thread
- Self Tapping vs Non Self Tapping
- Solid vs Cannulated
- Locking vs Non Locking
- Stainless Steel vs Titanium



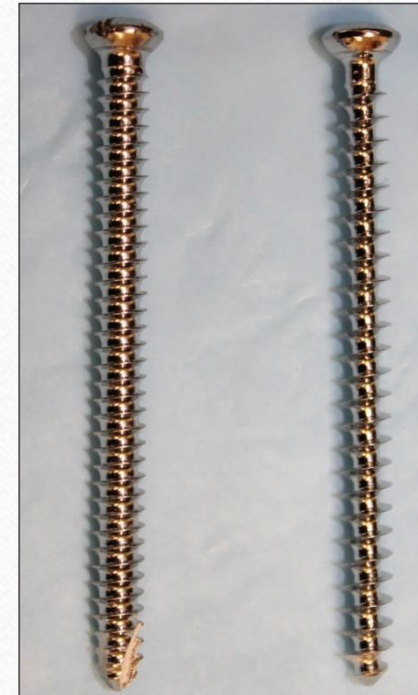


Basic Screw Anatomy



Cortical vs Cancellous

- Cortical screws are the most frequently used and used on cortical bone
- Has smaller diameter threading than Cancellous screws
- Has a finer pitch than Cancellous screws
- Cancellous screws are only used in cancellous bone



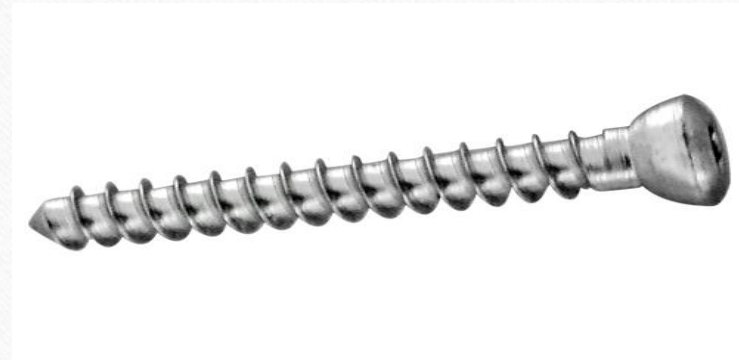
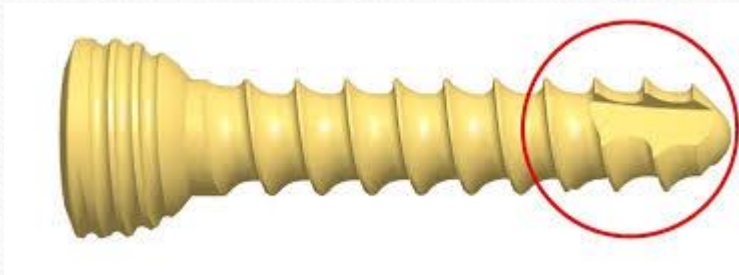
Partial Thread vs Full Thread

- Cortical screws are almost exclusively full thread
- Partial thread is used to bring bone fragments together under compression
- Partial thread can come in various thread lengths (example 16mm, 32mm)



Self Tapping vs Non Self Tapping

- Creates its own thread path by cutting into the bone
- Requires the use of a tap to create thread path
- This adds another step to each screw insertion



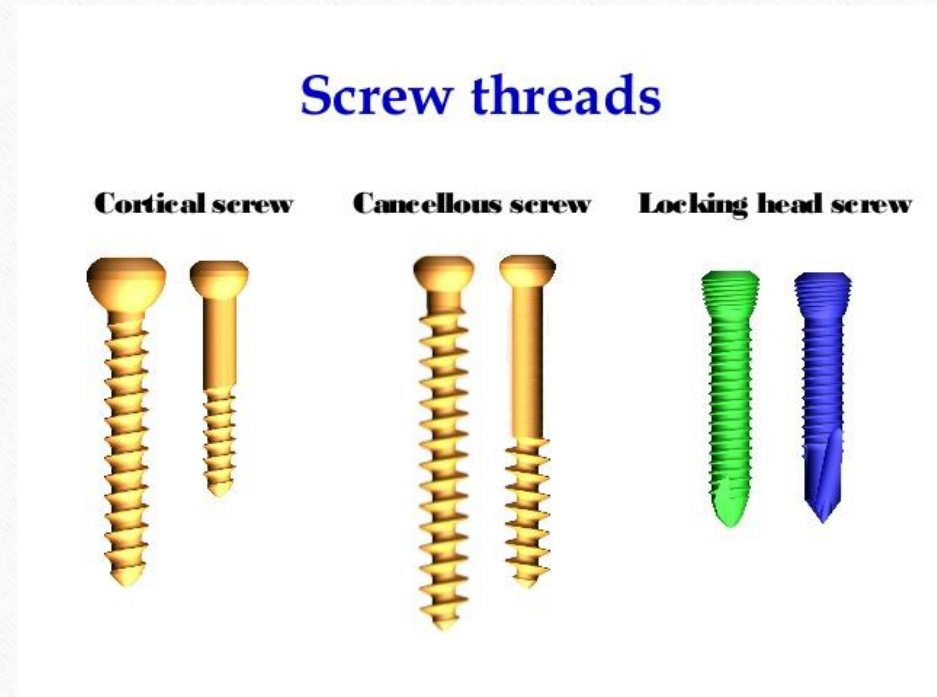
Solid vs Cannulated

- Cannulated screws have a “hole” right through the entire screw
- This allows a K-Wire to be inserted into the bone and used as a guide for the drill and screw insertion
- Requires cannulated drill and screwdriver



Locking vs Non Locking

- Locking screws have a finer diameter thread and pitch than cortical screws
- Locking screws have a threaded head that allow them to screw into the plate
- Requires special drill guides, drill bits and plates (LCP Plates)



Stainless Steel vs Titanium

- They are not interchangeable!
- Titanium screws must be used with titanium plates and stainless steel screws with stainless steel plates
- Mixing of these two metals can cause galvanic corrosion and subsequent failure of the implant



Questions???

