Surgical approaches to the forearm
Robert Strauch MD
Professor of Clinical Orthopaedic Surgery
Columbia University Medical Center
The ulna is easy

• Straight incision always—right on bone
• Don’t try to ORIF ulna through the incision used to approach radius
  – Exception?—radial head replacement done via the gap in proximal ulna fractures
The radius approach

• Distal forearm:
  — Henry or FCR approach
• Middle and proximal forearm:
  — Dorsal Thompson approach
Problems with radius approaches:

• Henry approach:
  – deep proximally and have to ligate stuff
  – Keep forearm supinated to protect PIN

Thompson approach:

• Only thing to watch out for is PIN
• PIN is easy to find
• Find and protect it and bone is right there

Henry approach

• Distally:
  – between FCR and BR
  – retract radial artery radially
• Proximally:
  – between Pronator Teres and BR
Incision:
Begin lateral to biceps tendon and end at radial styloid

Muscles covering radius:
- Pronator Quadratus
- FPL
- FDS
- Pronator teres tendon
  - can save it from dorsal side, need to cut it or go under it from Henry approach
- Supinator
Thompson approach:

- **Incision:**
  - Bovie cord from lateral epicondyle to Lister’s tubercle—draw a line with forearm in neutral
Interval:

- **Between EDC and ECRB**
- Much easier to find the interval distally
- Put a kelly up under it or use your finger underneath and separate the raphe connecting them as you come proximally
- The muscles separate easily
- Beneath that is the supinator
- Run your finger gently along supinator from proximal to distal and you will feel the PIN
- Gently split the supinator over PIN to identify
Distal to the P.teres insertion:

• Don’t need to find PIN
• Work underneath the APL/EPB—put a penrose around them
On radius plates go:

- Straight dorsal
- Straight palmar
- On radial border
Watch out for palmar cutaneous branch of median nerve

- Can cross FCR sheath in subcutaneous tissue or deeper
- Can easily be cut