Foot and Ankle Dissection Guide

Landmarks:
- Lateral malleolus
- Medial malleolus
- TA and EHL tendons
- Base of 5th MT

Approaches:

- Lateral approach to fibula
  Position: Supine with bump under ipsilateral side
  Incision: Longitudinal incision directly over the fibula (mid line or slightly posterior depending on plate)
  Incise the peroneal sheath
  Retract the tendons anteriorly and elevate the periosteum off of bone
  approx 7-10 cm prox to the distal tip of the fibula you will encounter SPN

- Posterolateral approach to tibia
  Position: Lateral with the affected side away from the table, or prone
  Incision: Palpate the lateral Achilles and the peroneal tendons
  Make a longitudinal incision lateral to the Achilles tendon
  Identify the Achilles facia and the peroneal facia
  Incise the deep facia and develop a plane between peroneus brevis and FHL
  Incise the FHL along its lateral origin, down to bone
  Incise the periosteum of the tibia and expose the bone
  Distally you will encounter the PITFL and the transverse and posterior TFLs
  If you incise these ligaments you will expose the postlat joint capsule

- Posteromedial approach to Achilles
  Position: Supine in figure four, or lateral with injured side nearest table, or prone
  Incision: Palpate Achilles and make a longitudinal incision through skin medial to tendon
  Incise the deep facia which is encountered first
  Identify FHL, it is the only muscle with muscle fibers near the ankle
  Retract FHL along with the NV bundle medially
  Now you can identify and expose the Achilles tendon for repair
  Additionally, you can retract the Achilles laterally and expose the postmed ankle joint

- Medial approach to medial malleolus
  Position: Supine, bump contralateral side
  Incision: May go anterior or posterior to medial malleolus
  Anterior approach allows visualization of anteromedial ankle joint and talar dome
  Posterior approach allows visualization of posterior margin of tibia
You will be anterior or posterior to long saphenous vein and saphenous nerve
In either approach incise through subq fat, retinaculum and then through joint capsule

-Anterior approach to tibia
Position:
Supine with bump under ipsilateral side
Incision:
Palpate TA medially and EHL just lateral to it
The NV bundle lies posterior to EHL (Between EHL and EDL)
Make a longitudinal incision between TA and EHL
Retract EHL (and the NV bundle) laterally and TA medially
Expose the Anterior tibial periosteum
Incise the periosteum and expose the joint

-Anterolateral approach to tibia
Position:
Supine with bump under ipsilateral side
Incision:
Longitudinal incision anterior to the fibula and lateral to the tendons of EDL
Incise the extenoser retinaculum
Identify branches of SPN
Expose Peroneus tertius lateral to the EDL tendons
Elevate PT and EDL medially
Expose the IO membrane, AITFL as well as the sinus tarsi, take care to preserve them
Incise the joint capsule

Arthroscopy:
-Distraction:
A kerlix roll wrapped around the ankle and either hung from the bed with weights or
wrapped around your waist can provide distraction at the ankle
Commercially available devices are also available

-Anteromedial portal
Located at the level of the ankle joint, just medial to the tibialis anterior tendon, and located
about 5 mm proximal to the medial malleolus
Use an 18 gauge needle to infuse saline into the joint
Greater saphenous nerve and vein are at risk w/ this portal, lying 7-9 mm medial to the
portal
Instill your scope initially through this portal

-Anterolateral portal
Once the joint is distended w/ saline, use 18 gauge needle to mark location of anterolateral
portal which should lie just lateral to peroneus tertius tendon
Staying lateral to the peroneus tertius, helps avoid injury to the dorsal lateral branch of the
peroneal nerve
Use the scope to transilluminate the anterolateral skin, in order to look for underlying
cutaneous nerves
The scope can then be driven forward (elevating the synovium and skin) which further
assists with placement of this portal
Make small incision and then spread w/ hemostat, but be aware that the intermediate
branch of the SPN is about 5-6 mm from this portal