

# Manual Therapy Techniques for the Lower Extremities

## 4-Corners OIG

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# Ankle Techniques

## ➤ Talo-Crural/Subtalar Joints

- AP Mobilization
- PA Mobilization
- Lateral glides

## ➤ Cuboid Manipulation

## ➤ Distal Tib-Fib Joint

- Prone, AP/PA Mobs
- Sidelying, PA/AP Mobs

## ➤ Subtalar Manipulation

# Talo-Crural Joint (TCJ): AP Mobilization Progression



- **Patient position**
  - Supine, ankle off table
- **Therapist position**
  - Proximal hand: Stabilizes distal leg by grasping just proximal to malleoli. May rest your knuckles on plinth for added support.
  - Distal (mobilizing) hand: Cups the anterior talus into the 1<sup>st</sup> web space.
  - Use your thigh to help stabilize the foot.
- **Mobilization technique**
  - Mobilize with a posteriorly directed force on the talus into the restrictive barrier.
  - Progressively increase ankle DF with your thigh.

# Talo-Crural Joint (TCJ): PA Mobilization Progression



## ➤ Patient position

- Prone, ankle off table

## ➤ Therapist position

- **Proximal hand:** Stabilizes distal leg by grasping just proximal to malleoli. May rest your knuckles on plinth for added support.
- **Distal (mobilizing) hand:** Cups the posterior calcaneus into the 1<sup>st</sup> web space.
- Use your thigh to help stabilize the foot.

## ➤ Mobilization technique

- Mobilize with an anteriorly directed force on the calcaneus into the restrictive barrier.
- May use thigh to help guide motion.

# Talo-Crural/Subtalar Joint: Lateral Glides



- **Patient position**
  - Side lying, ankle off plinth
- **Therapist position**
  - **Proximal hand:** Stabilizes distal leg by grasping just proximal to malleoli. Rest your forearm across the patient's medial leg for added support.
  - **Distal (mobilizing) hand:** Grasps the talus and calcaneus with the heel of the hand over the talus.
  - Position your body so your arm is perpendicular to the patient's leg.
- **Mobilization technique**
  - Graded lateral mobilization is applied by pushing downward toward the floor.
  - Move both hands inferiorly one joint to change from TC to ST joint mobilization.

# Distal Tib-Fib Joint: Prone, AP / PA Mobilization

## AP Mobilization



## PA Mobilization



- **Patient position**
  - Prone, knee flexed 90 degrees
- **Therapist position**
  - **AP Glides:** Hypothenar eminence of one hand on the anterior lateral malleolus and thenar eminence of other hand on posterior medial malleolus for stabilization
  - **PA Glides:** Hypothenar eminence of one hand on the posterior lateral malleolus and thenar eminence of other hand on anterior medial malleolus for stabilization
- **Mobilization technique**
  - **AP Glides:** Mobilize with a posteriorly directed force on the lateral malleolus
  - **PA Glides:** Mobilize with an anteriorly directed force on the lateral malleolus

# Distal Tib-Fib Joint: Sidelying, AP / PA Mobilization

## AP Mobilization



## PA Mobilization



- **Patient position**
  - Sidelying with medial malleolus on table and remainder of foot off table
- **Therapist position**
  - Bottom hand positioned so that heel of hand lies over the anterior distal fibula.
  - Top hand grasps the bottom hand and pulls the wrist into extension to help localize pressure on the anterior fibula.
- **Mobilization technique**
  - Apply posteriorly directed mobilization to the anterior surface of the distal fibula.
  - PA Glides performed in same manner with hands positioned on posterior surface of distal fibula.

# Subtalar Joint Manipulation



- **Patient position**
  - Supine with ankle off table
- **Therapist position**
  - Grasp the patient's foot with both hands.
  - Small or ring fingers lie just below the neck of the talus.
  - Both thumbs provide firm pressure to the mid forefoot.
- **Mobilization technique**
  - Engage restrictive barrier with ankle DF & distraction.
  - Evert & DF forefoot to fine-tune barrier.
  - Apply a HVLA thrust in a caudal and DF direction (scooping motion).

# Cuboid Manipulation

- **Patient position**
  - Prone with knee flexed
- **Therapist position**
  - Grasp the patient's foot with both hands.
  - Localize the position of the cuboid using the 5th MT.
  - Position thumbs on plantar surface of cuboid, hands grasp patient's midfoot.
- **Mobilization technique**
  - Guide foot into plantarflexion and inversion to find restrictive barrier.
  - Apply HVLA thrust in "whiplike" fashion while sustaining localized pressure on the plantar aspect of cuboid.

