Manual Therapy for Motion Loss at the Knee

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Objectives:

- Understand the contraindications to manual therapy
- Understand the principles of joint biomechanics/motion at the knee in order to effectively guide treatment for motion loss
- Learn joint mobilization techniques that can be used in the office/clinic/training facility immediately in order to improve knee ROM.

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General Mobility and Pain Relief

Tibiofemoral joint

I. Posterior tibial glide grade I-II*
   - Patient supine: knee flexed to 10-25 degrees with towel roll under knee
   - Posterior glide to tibia up to grade II slack zone only

II. Traction
   - Patient prone: knee slightly flexed, stabilize femur with belt or hand
   - Distraction force along long axis of the tibia

   - Patient seated: legs off plinth
   - Grasp proximal tibia and provide distraction force along long axis of tibia
Superior Tibiofibular joint

I. Posteromedial or Anterolateral fibular glide (posterolateral knee pain, flexion pain)
   - Patient supine: knee flexed and foot on table
   - Posteromedial glide to fibular head with thenar eminence
   - Patient prone: modified figure 4 position, hand stabilizes femur
   - Anterolateral glide to fibular head, tibia stabilized by plinth

Manual Treatment for Extension Loss

Tibiofemoral joint

I. Anterior glide of tibia/Posterior glide of femur
   - Patient prone: knee flexed to 25-30°, support ankle/tibia
   - Anterior glide to tibia
   - Patient supine: knee slightly flexed to start, wedge under tibia
   - Posterior glide of femur on tibia

II. Tibial ER/anterior glide medial side of tibia
   - Patient supine: knee extended to available endrange
   - Anterior glide to medial side of tibia

III. ACL-R extension mobilization
   - Patient supine: knee extended to available endrange
   - Anterior glide to tibia and distal femur
Patellofemoral joint

I. Superior patellar glide (not pictured)
- Patient supine: knee in extension to slight flexion
- Superior glide to inferior border of patella

II. Dynamic antagonist mobilization-superior patellar glide with flexion
- Patient supine: knee in extension, patient holding strap around foot
- Patient flexes knee with sustained superior patellar glide

Tibiofemoral joint

I. Posterior glide of tibia/Anterior glide of femur
- Patient supine: wedge under distal femur, knee in flexion
- Posterior glide to tibia, progress into more flexion (Chase the range!)

II. Tibial IR/posterior glide of medial side of tibia
- Patient supine: knee flexed to available endrange
- Posterior glide to medial side of tibia

Patellofemoral joint

I. Inferior patellar glide (not pictured)
- Patient supine: knee in extension to slight flexion
- Inferior patellar glide to superior border of patella

II. Dynamic agonist mobilization-inferior medial patellar glide with flexion
- Patient supine: knee in extension, patient holding strap around foot
- Patient flexes knee with sustained inferomedial force to superior patella

Manual Treatment for Flexion Loss