Rehabilitation Protocol: anterior cruciate ligament reconstruction with HAMSTRING TENDON AUTOGRAFT

⁮ **Phase 1 (Weeks 0-4)**

* Weight bearing: As tolerated with crutches (modified if concomitant meniscal repair, meniscal transplant or articular cartilage procedure is performed)
* Hinged knee brace
  + Locked in full extension for ambulation and sleeping (weeks 0-1)
  + Unlocked for ambulation and removed while sleeping (weeks 1-4)
* Range of motion Active assisted range of motion (AAROM) → Active range of motion (AROM) as tolerated
* Therapeutic exercises
  + Quad sets and heel slides, gentle hamstring stretch at 1 wk
  + Non weighbearing stretch of the gastrocnemius and soleus
  + Straight leg raise with brace in full extension until quad strength prevents extension lag

⁮ **Phase 2 (Weeks 4-6)**

* Weight bearing: As tolerated, discontinue crutch use
* Hinged knee brace: Discontinue brace use when patient has achieved full extension with no evidence of extension lag
* Range of motion: Maintain full extension, work on progressive knee flexion
* Therapeutic exercises
  + Closed chain extension exercises
  + Hamstring and gastrocnemius soleus stretch
  + Progress to weightbearing stretch of the gastrocnemius and soleus
  + Begin use of stationary bicycle

⁮ **Phase 3 (Weeks 6-16)**

* Weight bearing: Full
* Range of motion: Full and painless
* Therapeutic exercises
  + Begin hamstring strengthening, gradually add resistance to open chain hamstring exercises at 12 weeks
  + Advance closed chain strengthening exercises, proprioception activities
  + Begin use of stairmaster/ elliptical
  + Can start ahead running at 12 weeks

⁮ **Phase 4 (Months 4-6)**

* Continue with strengthening (quad/hamstring) and flexibility
* Range of motion: Full and painless
* Therapeutic exercises
  + Continue hamstring strengthening
  + Begin cutting exercises and sport-specific drills
  + Maintenance program for strength and endurance
  + Return to sports at 6 months