



The Children's Hospital



CGMA

Center for Gait and Movement Analysis

PT05: Percutaneous hamstring lengthening

Indication: Hamstring contracture, crouch gait

Procedure: Percutaneous cuts through the insertion of the gracilis, semitendinosus and biceps femoris, through the tendinous portion of semimembranosus

Casting: Long leg or cylinder cast with the knee extended 4-6 weeks, begin weight bearing as soon as tolerated/ as specified by MD

Healing Time: Approximately 6 weeks

Precautions: Begin weight bearing as soon as tolerated/ per MD recommendation

- Wear knee immobilizers at night after cast removal
- May develop painful dysesthesia in the calf and foot which may last for several months, if the pain related to this limits rehab progress, contact MD

Contraindications:

- Avoid forceful, resisted muscular contraction of the hamstrings for 6 weeks post-op
- Avoid impact activities for 6 weeks post-op

Phase 1: Post-op day 1-7

- Goals:
- protect the surgical site including the incision and underlying surgical tissues
 - 10 minutes of sustained/uninterrupted long sitting every hour the child is awake
 - home exercise instruction including positioning, stretching, ADL function
 - isometric contraction of the gluts, quads, AROM of ankles

Criteria to Progress:

- safe mobility for ADL completion
- able to demonstrate understanding of home exercises and precautions

Phase 2: Post-op day 8-21

- Goals:
- begin sub maximal (<50%) isometric hamstring contraction if able
 - begin SLR, all planes with assistance

Criteria to Progress:

- uneventful healing of surgical tissues

Phase 3: Post-op 22 to completion of PT care

- Goals:
- surgical incision scar mobility once good wound closure has occurred (Approx. 4-6 weeks post-op)
 - increase knee extension at terminal swing, initial contact and terminal stance when walking
 - upright posture when walking, avoid crouch position
 - improve knee ROM
 - increase hamstring flexibility
 - improve total leg strength including the hip extensors, hamstrings, quads, calf
 - develop endurance strength before addition of resistance with weights
 - independent management with home exercises

When multiple procedures are performed at the same surgical event, the post-op physical therapy care needs to default to the most conservative time frames and guidelines.