



The Children's Hospital



CGMA

Center for Gait and Movement Analysis

PT11: Proximal femoral Varus derotational osteotomy (VDRO)

Indications: Hip subluxation or dislocation

Procedure: Varus, derotation and shortening proximal femoral osteotomy in the intertrochanteric region of the femur with the distal fragment medially displaced and secured with plate fixation, iliopsoas tendon released from the lesser trochanter

Casting: Double hip spica cast for 6 weeks, non weight bearing

Healing Time: Approximately 6-8 weeks

Precautions:

- Child with spasticity may experience increased spasms/discomfort when cast removed and movement at the hip & knee is initiated. Also, spasticity may draw lower extremities into a "set" position (eg. flexion) and may make it difficult/painful to regain range/mobility in the opposite direction (eg. extension).
- Periodic use of a bivalved cast may be helpful during this transition (eg. nighttime, short times during day, etc.)
- Avoid aggressive/forceful range of motion initially
- Children who were non-weight bearing pre-op may be osteopenic and fixation of the surgical hardware may be limited. Special care must be taken during exercise and progressive weight bearing activities

Contraindications:

- No impact, torque or unprotected weight bearing for the first 6 weeks post-op**
- Minimize risk for falling**

Phase 1: Post-op day 1-7

- Goals:
- Protect surgical site, both skin incision and bony healing – **Non weight bearing**
 - Address splinting, bracing and equipment needs
 - Address and instruct patient and family in safe mobility and transfers for daily function and hygiene
 - Pain management which may include use of ice, heat, massage and/or electrical stimulation for pain modulation only
 - PROM, AAROM of the knees and ankles
 - isometric contraction of the gluts, quads and hamstrings
 - Patient and family are able to demonstrate understanding of post-op precautions and home exercise program

Criteria to Progress:

- safe mobility and transfers for completion of ADLs

Phase 2: Post-op day 8-21

- Goals:
- pain management as needed (may be a priority with spasticity)

Criteria to Progress:

- ongoing healing of surgical sites
- independent with transfers, ADLs and mobility

Phase 3: Post-op day 22 to end of post-op week 6

- Goals:
- avoid impact, torque and reduce risk for falling
 - re-evaluate splinting and bracing needs for assistance with gait efficiency at the end of post-op week 6 if weight bearing is allowed by MD

Criteria to Progress:

- ongoing healing of surgical site
- Weight bearing status and cast removal will be determined by the physician. This will be guided by the bone density and integrity, healing and x-ray findings**

Phase 4: Post-op week 7 to completion of care

Goals: -Begin PROM, AAROM and AROM of all LE joints once casts are removed. Work toward full LE ROM in all planes
-modify bracing needs to improve walking efficiency, working on **quality** of walking pattern
-Return to pre-op functional mobility and independence (ie: bed mobility, transfers, gait, etc.)
-improve total lower extremity endurance with high repetition exercises, then progress to strengthening exercises with mild resistance. E-stim may be used for muscle re-education/ strengthening
-functional balance training activities
-transverse friction/ scar mobility once the surgical incision is closed (approx. 4-6 weeks post-op)

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.

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