

Treatment Algorithm:
Slipped Capital Femoral Epiphysis

Background

- Most often in children 10-15 years of age
- Average age in females is 12
- Average age in males is 13
- More often in males, African-Americans, Pacific Islanders, and obese children
- Bilateral in 17-50%
- When present in children **under 10 year** old frequent association of endocrine disorders (hypothyroid and renal osteodystrophy)

Diagnosis

- When a pediatric patient presents to the ED or clinic with hip, thigh, or **knee pain** concerning for SCFE
 - Obtain AP pelvis and frog leg lateral of BILATERAL hips
 - Must rule out bilateral hip involvement
- Classification
 - Loder
 - Stable
 - Able to bear weight without crutches
 - **Unstable**
 - Unable to ambulate
 - Needs admission for surgical pinning
 - In “unstable” SCFE need to assess for displacement and acuity
 - Grossly unstable, displaced over 50%= resembling acute fracture
 - Needs URGENT/Emergent fixation
 - “unstable” SCFE- with <50% epiphysis displacement
 - Admission for urgent fixation
 - Bed rest until OR
 - The following morning acceptable
 - Temporal
 - Acute
 - Symptoms less than 3 weeks
 - **Assess stability**
 - Determine need for admission based on “Stability” as above
 - Chronic
 - Symptoms greater than 3 weeks
 - Assumption is that these are “stable”
 - Acute on chronic
 - Long-standing symptoms with acute exacerbation

- Determine need for admission based on “Stability” as above
- Further work-up
 - If patient less than 10 years old
 - Work-up should involve pediatrics/pediatric endocrinology
 - Frequently endocrine disorders
 - Hypothyroidism
 - Renal osteodystrophy

Admission and Treatment

- Criteria for SCFE needing admission
 - Inability to ambulate- admission as above
 - Patients with signs of chronic changes on x-ray with ability to ambulate DO NOT need urgent admission- speak to Pediatric Attending and get clinic appointment the next week and OR time scheduled
- Treatment
 - Percutaneous in situ pinning
 - **Fracture table** (see set-up below)
 - 6.5/7.3mm Synthes cannulated screws
 - Large C-arm
 - Ensure operative leg is placed in traction boot with appropriate padding
 - Ensure nonoperative leg is appropriately padded and placed in well leg holder
 - Note landmarks and expected screw trajectory prior to prepping and draping
 - Consider bilateral fixation (even if asymptomatic)
 - If less than 10 years old
 - If positive endocrine work-up
 - Can be done electively
 - Gentle, Internal rotation to position of contact
 - In unstable, high grade SCFE







