

## **Drilling of Stress Injury or Epiphysiodesis of the Proximal Humerus**

### **Indications for Surgery**

The growth plate is the weak link in the growing athlete during different stages of growth and is more susceptible to injury than the surrounding bone, muscle, or ligaments. Stress injury to the proximal humerus epiphysis (growth plate), also known as Little League Shoulder, is characterized by repetitive injury to the physis (growth plate) of the proximal humerus (upper arm bone). Repetitive forces from throwing or other overhead activities like swimming, volleyball, and racquet sports are the most common cause. This condition generally responds well to rest with a gradual return to activity. If the patient has had chronic (long-term) symptoms, surgical intervention may be indicated to stimulate the healing process. Fortunately, most younger patients with significant growth remaining heal with rest and a gradual return to activities. For some older patients, the repetitive stress prevents the growth plate from properly closing and surgery may be necessary to get the growth plate to close and fuse with solid bone.



Red arrow indicates widening of the growth plate on the X-ray above.



MRI above shows proximal humeral epiphysis edema as noted by the red arrow.

### **Contraindications to Surgery**

- Infection in the shoulder
- Inability or unwillingness to complete the postoperative program of limiting activity after surgery and to complete the necessary rehabilitation



# STEVEN CHUDIK MD

---

---

## SHOULDER, KNEE & SPORTS MEDICINE

### Surgical Risks and Complications

- Wound infection
- Bleeding or injury to blood vessels
- Injury to nerves (numbness, weakness, etc.)
- Shoulder stiffness
- Failure of the growth plate to close and heal

### Hospitalization and Anesthesia

- Outpatient surgery (you go home the same day)
- General anesthesia with interscalene block (numbing medicine injected around the nerves to the arm)

### General Surgical Technique

Using X-ray, Dr Chudik locates the growth plate. The growth plate or proximate stress fracture is then drilled percutaneously (through the skin) with small pins to stimulate the bone, promote bleeding and begin the healing process. Following the drilling, the patient is required to be immobilized in a sling for six weeks with no use of the operative arm to allow bone healing. The patient is then expected to attend formal physical therapy for four to six months to regain full shoulder strength and motion, followed by a gradual return to throwing/overhead sports. If the patient returns to sport too quickly, this injury has a high rate of recurrence. In the extremely rare case where a large portion of the growth plate fails to close as expected, bone grafting may be necessary.

### Preoperative Instructions

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin<sup>®</sup>, Lovenox<sup>®</sup>, Xarelto<sup>®</sup>, Eliquis<sup>®</sup> according to the prescribing doctor's directions
- Stop anti-inflammatory medicines such as ibuprofen, Advil<sup>®</sup>, Motrin<sup>®</sup>, Naprosyn<sup>®</sup>, Alleve<sup>®</sup>, etc.)
- Stop nutritional supplements and drinks like Vitamin C, ginseng, ginkgo biloba, etc.
- Stop smoking for surgery and during the first six weeks postoperatively to allow proper tissue healing

**Do not eat or drink anything from midnight, the evening before surgery**

### Postoperative Course

- Sling for up to six weeks to rest the bone and allow recovery.
- Return to sedentary work in less than one week
- Physical therapy to restore motion and strength for up to four to six months.



# STEVEN CHUDIK MD

---

---

## SHOULDER, KNEE & SPORTS MEDICINE

### Return to Activity

- Return to gentle, daily activities about six to eight weeks after surgery
- Return to sports and more vigorous activities at the four to six months after surgery if the bone has healed and recovered

### Scheduling Surgery

Contact Dr. Chudik's surgery scheduler at 630-324-0402 or [contactus@chudikmd.com](mailto:contactus@chudikmd.com) to:

- Schedule the date and location of surgery (the hospital will call the day before with the confirmed arrival time)
- Schedule a pre-operative appointment
- Schedule a post-operative appointment for 10 to 14 days after surgery to remove sutures and review post-operative instructions

### Notify My Office if Symptoms Worsen

