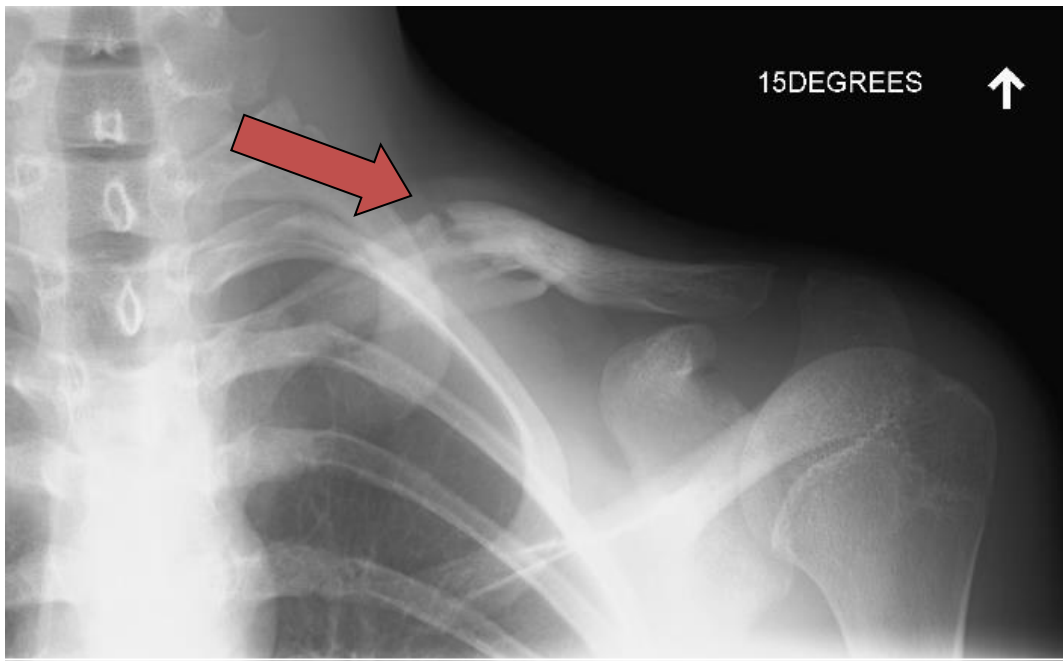


**STEVEN CHUDIK MD**  
**SHOULDER, KNEE & SPORTS MEDICINE**

## Nonunion/Malunion of Clavicle Fracture

### Indications for Surgery

Clavicle fractures may not heal correctly for a variety of reasons ranging from chronic disease, diabetes, anemia, hypothyroidism, age, smoking and poor nutrition to improper early activity and infection. A nonunion indicates a lack of fracture healing while a malunion is healing of the fracture in improper alignment. Without intervention, most nonunions and some malunions will continue to cause pain and physical limitations. Surgery to stimulate, stabilize and bone graft the fracture is sometimes necessary to promote proper fracture healing in acceptable alignment.



Nonunion of clavicular fracture with incomplete healing over three months post-injury

### Contraindications to Surgery

- Infection
- Shoulder stiffness
- Patients with poor general health (not advised to proceed with surgery)



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### Potential Surgical Risks and Complications

- Infection
- Bleeding
- Injury to nerves (numbness)
- Non-healing or incomplete healing of the fracture
- Continued pain
- Stiffness or loss of motion of the shoulder
- Inability to return to same level of competition or activity
- Moving or breaking of surgical hardware
- Painful hardware

### Hospitalization and Anesthesia

- Outpatient surgery (go home the same day)
- General anesthetic with interscalene block (See *Your Surgical Experience* booklet)

### General Surgical Technique

Surgery consists of making a small open incision over the clavicle, taking down the extra scar tissue, “freshening up” the ends of the non-united bones, repositioning the fracture fragments, bone grafting and stabilizing the fracture in proper alignment with plates and screws. After fracture healing, these fixation devices may be removed if needed. During surgery, X-ray is used to ensure that all fragments are appropriately aligned.



Plate fixation of a midshaft clavicle fracture



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### Post-Operative Course

- Shoulder motion will be restricted in a sling for six weeks following surgery in order to protect the repair and allow it to heal. Patients will use a sling at all times except for bathing, dressing, and exercises for six weeks following surgery, especially while sleeping. **This prohibits driving.**
- Patients may feel more comfortable sleeping sitting upright (on a couch or recliner chair) after surgery.
- Keep the wound clean and dry for and ten to 14 days following open surgery. You may shower lightly after 14 days (open surgery) but wounds cannot be submerged under water for three weeks.
- Driving may be resumed after six to eight weeks.
- Return to school/sedentary work in less than one to two weeks **provided the sling is worn and the extremity is not used.**
- Physical therapy should begin two to three days after surgery and continue for four to six months. The success of a clavicle surgery is highly dependent on the post-operative rehabilitation. It is crucial to follow through and maintain a proper therapy schedule.

### Return to Activity

You may return to unlimited activities when there is no pain and full shoulder range of motion, muscle strength and endurance, and the fracture is healed. This usually requires three months following a midshaft clavicle ORIF. Dr. Chudik will clear patients to resume all activities.

### Preoperative Instructions

- Discontinue birth control pills
- Stop blood thinners such as aspirin, Coumadin<sup>®</sup>, Lovenox<sup>®</sup>, Xarelto<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**



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### 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 to remove sutures and review post-operative instructions

### Notify My Office if Symptoms Worsen



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Schedule online now