

# WRIST DISLOCATION, LUNATE



## ■ ■ ■ Description

Lunate wrist dislocation is an injury and displacement of the lunate bone in the wrist (usually) or other bones in the hand and wrist (less commonly). With this injury, the bones move so that adjoining bones are displaced from their normal position and no longer touch each other. A subluxation of this joint is uncommon; this is when the joint surfaces still touch but are not in normal relationship to each other. To dislocate or subluxate the lunate or wrist, the ligaments of the wrist must be sprained (torn).

## ■ ■ ■ Common Signs and Symptoms

- Severe pain at the time of injury and when attempting to move the hand and wrist
- Loss of hand and wrist function
- Tenderness, obvious deformity, swelling, and bruising at the injury site
- Numbness or paralysis below the dislocation from pinching, cutting, or pressure on the blood vessels or nerves

## ■ ■ ■ Causes

- Direct blow to the wrist, usually a fall on an outstretched hand
- End result of a severe wrist sprain
- Congenital abnormality (you are born with it), such as a shallow or malformed joint surface

## ■ ■ ■ Risk Increases With

- Participation in sports in which falling or stress on the arm and hand is a possibility (football, basketball, soccer, volleyball)
- Previous wrist sprain or dislocation
- Repeated injury to any joint in the wrist
- Poor physical conditioning (strength and flexibility)

## ■ ■ ■ Preventive Measures

- Maintain appropriate conditioning:
  - Cardiovascular fitness
  - Wrist strength
  - Flexibility and endurance
- For participation in sports in which wrist injury is likely and the sport allows, wear preventive taping, bandages, bracing, or wrist guards.

## ■ ■ ■ Expected Outcome

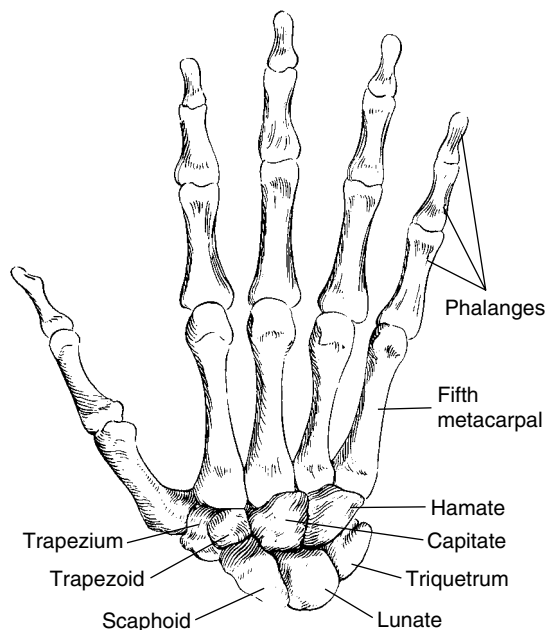
With appropriate reduction (repositioning of the joint) and immobilization, complete healing of ligaments requires a minimum 6 weeks. Surgery may be required. Wrist stiffness is very likely, even after healing and rehabilitation.

## ■ ■ ■ Possible Complications

- Damage to nearby nerves or major blood vessels, as well as associated fracture or joint cartilage injury due to the dislocation or reduction of the dislocation
- Prolonged healing or recurrent dislocation if activity is resumed too soon
- Death of bone cells caused by interruption of the blood supply (rare)
- Excessive bleeding in the wrist and hand at the dislocation site, causing pressure and injury to nerves and blood vessels (rare)
- Stiff wrist
- Recurrent dislocations
- Unstable or arthritic joint following repeated injury or delayed treatment

## ■ ■ ■ General Treatment Considerations

After immediate reduction (repositioning of the bones) by trained medical personnel, treatment consists of ice and medications to relieve pain. Although reduction can be performed without surgery, surgery may be needed to restore the joint to its normal position, as well as to repair ligaments and hold them in proper position with pins and wires. Elevating the injured hand and wrist at or above heart level helps to minimize



**Figure 1**

From Jenkins DB: Hollinshead's Functional Anatomy of the Limbs and Back, 6th ed. Philadelphia, WB Saunders, 1991, p. 157.

swelling. Immobilization by splinting, casting, or bracing for 2 to 8 weeks is often recommended to protect the joint while the ligaments heal. After immobilization, stretching and strengthening of the injured and weakened joint and surrounding muscles (due to immobilization and the injury) are needed. These may be done with or without the assistance of an occupational or physical therapist or trainer. If swelling or bleeding within the wrist causes compression of the nerves at the wrist (acute carpal tunnel syndrome), urgent surgery is necessary to relieve the pressure.

### ■ ■ ■ Medication

- General anesthesia or muscle relaxants may be used to help make the joint repositioning possible.
- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Strong pain relievers may be prescribed as necessary. Use only as directed and only as much as you need.

### ■ ■ ■ Heat and Cold

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

### ■ ■ ■ Notify Our Office If

- Pain, tenderness, or swelling worsens despite treatment
- You experience pain, numbness, or coldness in the hand
- Blue, gray, or dusky color appears in the fingernails
- Any of the following occur after surgery:
  - Increased pain, swelling, redness, drainage or bleeding in the surgical area
  - Signs of infection (headache, muscle aches, dizziness, or a general ill feeling with fever)
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

Notes:

(Up to 4400 characters only)

Notes and suggestions