

# ULNOCARPAL IMPACTION SYNDROME



## ■ ■ ■ Description

Ulnocarpal impaction syndrome is characterized by pain in the ulnar side (the side by the little finger) of the wrist due to pinching of the tissues between the bones of the ulnar side of the wrist. This often occurs in people who have an ulna that is longer than the radius. The ulna pinches against the bones and soft tissues of the hand and wrist and causes degeneration of the triangular fibrocartilage (a meniscus-like cartilage). Eventually the cartilage that lines the bone may wear away, degenerate, or tear, causing increased wrist pain.

## ■ ■ ■ Common Signs and Symptoms

- Pain and tenderness around the ulnar side of the wrist
- Pain that is worse with bending the wrist toward the little finger side or with heavy activity, such as push-ups
- Occasionally, clicking of the wrist
- Uncommonly, swelling of the wrist
- Pain with gripping or grasping

## ■ ■ ■ Causes

An ulna that is longer than the radius bone at the wrist causes pinching of the triangular fibrocartilage between the end of the ulna and the hand bones. This results in degeneration of the triangular fibrocartilage and eventual wearing out of the articular cartilage that lines the ulna and the hand bones.

## ■ ■ ■ Risk Increases With

- Sports that require repetitive wrist and hand motion (rowing, tennis, hockey, golf, pole vault, and baseball)
- Sports that cause loading at the hand and wrist, such as gymnastics, shot put, weightlifting, and cycling
- Poor physical conditioning (strength and flexibility)
- Improper sports mechanics

## ■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice and competition.
- Maintain appropriate conditioning:
  - Arm, forearm, and wrist flexibility
  - Muscle strength and endurance
- Use proper sports technique.
- Functional braces may be effective in preventing injury, especially re-injury, by reducing forceful bending of the wrist toward the little finger side.

## ■ ■ ■ Expected Outcome

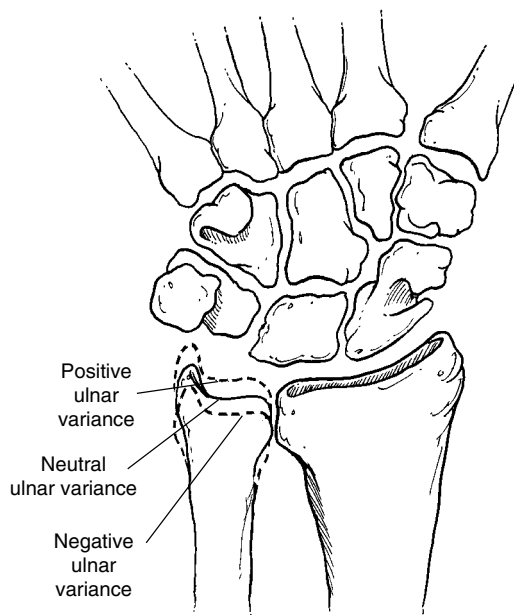
This condition is often treatable with nonoperative management, although surgery may be required to alleviate symptoms. People who have had ulnocarpal impaction syndrome are prone to recurrence. If surgery is required to shorten the ulna, the athlete may not be able to return to athletic competition.

## ■ ■ ■ Possible Complications

- Frequent recurrence of symptoms and repeated injury, resulting in a chronic problem, especially if activity is resumed too soon after injury; appropriately addressing the problem the first time decreases frequency of recurrence and optimizes healing time
- Prolonged healing time if activities are resumed too soon
- Injury to other structures of the wrist, including the triangular fibrocartilage
- Arthritis of the wrist
- Wrist stiffness (loss of wrist motion)
- Locking and clicking of the wrist
- Prolonged disability
- Inability to return to the same level of sports
- Risks of surgery, including infection, bleeding, injury to nerves, persistent pain, increased pain, catching or locking, and need for reoperation

## ■ ■ ■ General Treatment Considerations

Initial treatment consists of medication and ice to relieve the pain and modification of the activity that initially caused the problem to occur. Often a splint, brace, or cast may be recommended. Wrist range-of-motion and strengthening exercises are performed as the pain subsides. These may be



**Figure 1**

From Scuderi GR, McCann PD, Bruno PJ: Sports Medicine: Principles of Primary Care. St. Louis, Mosby, 1997, p. 276.

carried out at home, although usually referral to an occupational therapist, physical therapist, or athletic trainer is recommended. A gradual return to sports is attempted. If symptoms persist, surgery is recommended. Surgery may be arthroscopy to repair or remove torn fibrocartilage, although if the ulna is particularly long, surgery to shorten the ulna may be recommended (this can be done with or without arthroscopy). Return to sports after surgery may be attempted after 3 to 6 months; however, some athletes cannot return to sports after surgery.

### ■ ■ ■ Medication

- 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.
- Stronger pain relievers may be prescribed as necessary by your physician. Use only as directed.

### ■ ■ ■ Cold Therapy

Cold is used to relieve pain and reduce inflammation for acute and chronic cases. 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.

### ■ ■ ■ Notify Our Office If

- Symptoms get worse or do not improve in 4 to 6 weeks despite treatment
- You experience pain, numbness, or coldness in the hand
- Blue, gray, or dusky color appears in the fingernails
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

Notes:

(Up to 4400 characters only)

Notes and suggestions