

## Hand Conditions: WRIST FRACTURE

Fracture of scaphoid bone



*A wrist fracture* is a break in one or more of the bones in the wrist. The wrist is made up of the two bones in the forearm called the radius and the ulna. It also includes eight carpal bones. The carpal bones lie between the end of the forearm bones and the bases of the fingers. The most commonly fractured carpal bone is called the scaphoid or navicular bone.

This fact sheet will focus on fractures of the carpal bones of the wrist.

### Causes

A wrist fracture is caused by trauma to the bones in the wrist. Trauma may be caused by:

- Falling on an outstretched arm
- Direct blow to the wrist
- Severe twist of the wrist

### Risk Factors

Factors that increase your chance of developing a wrist fracture include:

- Participating in contact sports, such as football or soccer
- Participating in activities such as in-line skating, skateboarding, or bike riding
- Participating in any activity which could cause you to fall on your outstretched hand
- Violence or high-velocity trauma, such as an automobile accident

### Symptoms

If you have any of these symptoms, do not assume they are due to a wrist fracture. Symptoms of a wrist fracture include.

- Pain
- Swelling and tenderness around the wrist
- Bruising around the wrist
- Limited range of wrist or thumb motion
- Visible deformity in the wrist

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### Diagnosis

Your doctor will ask about your symptoms, physical activity, and how the injury occurred. The injured area will be examined. Images may need to be taken of your wrist. This can be done with:

- **X-RAYS**
- **MRI SCAN** rarely
- **CT SCAN** rarely

### Treatment

The initial concern of a distal radius fracture is that it begins moving as soon as the fracture is stable. A non-surgical fracture will likely spend 4-6 weeks in a cast with therapy focusing on elbow, finger and thumb motion. If the fracture is stable through surgical fixation, the physical therapist may begin moving the wrist gently. The first stage is likely to be gentle passive, or guided, motion where the therapists guides the motion and reduces forces on the wrist. Over time, the therapist will educate you on how to begin using gravity and light pressure to achieve the appropriate range of motion of the wrist. As the fracture continues to heal, the arm will perform closer to 100% of its own motion throughout the full expected range. Once the physician says that the fracture is closed, the therapist will move you into the strengthening phase that will help to get you back to your normal activity level.

Your physical therapist's goal is to help you return to the activities of daily living and recreation that you performed before the fracture. You may need to modify activities that will put direct impact on your wrist in weight bearing for 4-6 months but strength and range of motion will continue to progress. Keep up with the home exercise program that your therapist gives you so that you will continue to see improvement long after therapy ends.

### Prevention

To help reduce your chance of getting a wrist fracture, take the following steps:

- Do not put yourself at risk for trauma to the wrist bones.
- Eat a diet rich in calcium and vitamin D.
- Build strong muscles to prevent falls and stay flexible.
- Wear proper padding and safety equipment when participating in sports or activities