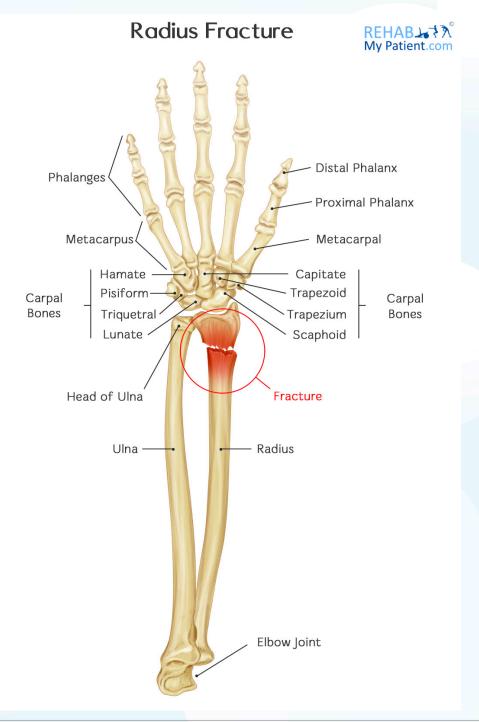
# Radius (Distal) Fracture

The radius is the thinner bone out of the two located within the forearm. The end part of the bone located near the wrist is known as the distal end. Fractures in this area often occur when the radius close to the wrist is broken. These fractures are quite common. In fact, the most commonly broken bone within the arm is the radius. Sometimes this fracture is known as a "Smith fracture".

## **Distal Radius Fracture Anatomy**

The arm is a complex system of muscles, bones, vessels and nerves. It extends from the shoulder down to the fingertips.



This evolutionary tool has allowed humans to build giant skyscrapers, arm wrestle and climb trees. Several pieces join together to make the arm one of the most useful of all tools in the human body. These main components are:

- Upper Arm Extending from the shoulder all the way down to the elbow, this part provides the arm with the lifting and pulling strength.
- **Elbow** Thanks to this hinged joint, the arm can swing in a 180 degree range at full extension.
- Forearm The forearm lies between the elbow and the wrist. The muscles within this area help to rotate the wrist.
- Wrist Located in the upper part of the hand, these 13 bones, as well as multiple tendons and muscles, form this intricate area.
- **Hand** Using five fingers, the hand helps you to do a significant amount of complicated tasks.

## **How to Treat a Radius (Distal) Fracture:**

Radius fractures often occur during sport, or during a fall. They can also occur during a car accident when gripping the steering wheel during a collision. You may not be aware that you have fractured your radius, so some things to look out for are swelling around the wrist (this occurs quickly, within a few minutes), difficulty bending and straightening your wrist, and difficulty gripping. There will also be point tenderness when you touch the fracture site.

If you suspect a radius fracture, you need to get to a hospital to get the wrist X-rayed. Should a radius fracture be found, the consultant has a number of treatment options:

#### 1. Reduction

If you have a bone that isn't in the proper position and it is going to limit movement in your arm, you might need to have the broken fragments realigned. The doctor will move the broken pieces in the arm back into place. If the bone is able to be straightened without the skin needing to be opened up, it is referred to as a closed reduction.

### 2. Splint or Cast

Once the bone is aligned, you might need to wear a cast or splint. The splint is often used for the first few days to allow for a minimal amount of swelling. Casts are often added within a few days to a week after the swelling has gone down. Every two to three weeks the cast is changed as the swelling continues to go down.

Once your wrist fracture has healed and the cast is off, you can start therapy. This is very important to improve range of motion to the wrist to prevent stiffness, and to assist with the healing. It will also help you to regain strength in the wrist and hand.



## Tips:

- If you find yourself falling down, try to avoid placing your arm out in front of yourself in an effort to stop the fall. Rolling on to the side might be an option, or trying to fall softly.
- For those who have osteoporosis, a minor fall can end up resulting in a broken bone. Many of those who are 60 or older end up breaking the bone from falling down when standing.
- Broken wrists can happen in the healthiest of bones, providing that the force from the trauma is severe enough.
- Falling off a bike or being in a car accident can leave you with a broken wrist from the excessive force involved.
- To prevent a fracture from occurring, good bone health is important.
- Wrist guards can help to prevent fractures to a certain degree, but they aren't going to prevent them all. Sports where this is often applicable are snow sports, especially snowboarding, or skateboarding.
- Discuss with your Rehab My Patient therapist the best way to rehabilitate your wrist to reduce stiffness and pain.