

Hand Fractures



THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER

The hand is made up of many bones called **metacarpals** and **phalanges**. A **fracture**, also called a **broken bone**, can happen when there is force against a bone, such as from a fall or accident.

A fracture may be called:

- A **simple fracture** – the bone pieces are in place
- An **unstable fracture** – the bone pieces are out of place or the bone may be in many pieces
- A **compound or open fracture** – the bone breaks and comes through the skin making it more at risk for infection

Signs of a fracture

You may have one or more of these signs:

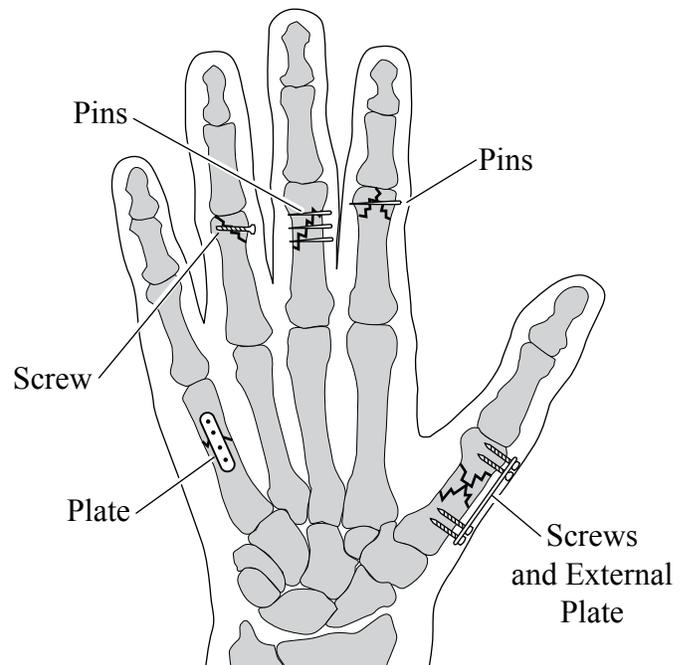
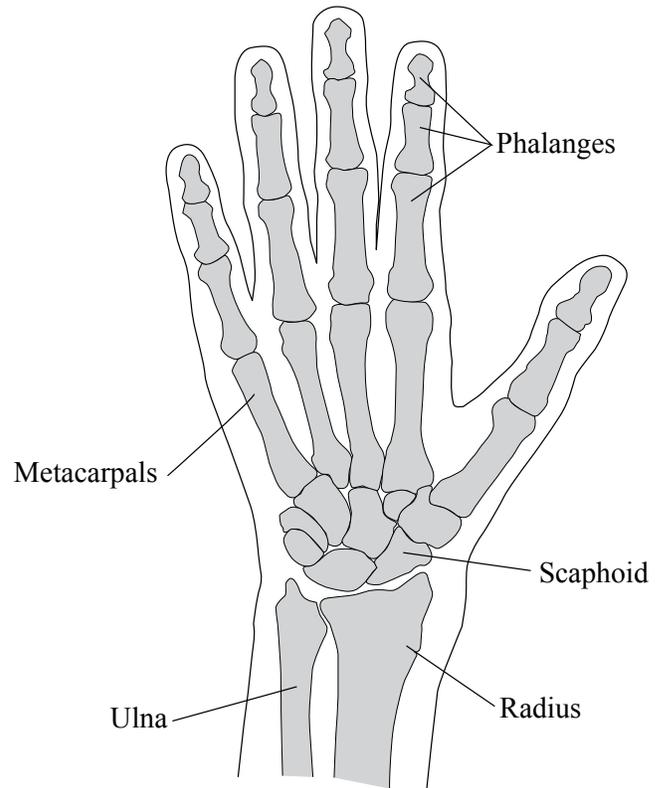
- Pain in the hand or wrist
- Swelling
- Loss of motion or strength
- A crooked finger

Treatment

Your doctor will do an exam and will order x-rays to be done to see if there is a fracture. Treatment will be based on the type of fracture.

For a simple fracture, a splint or cast may be used to protect the bone as it heals. Other fractures may need surgery. Pins, screws, or plates may be used to hold the bone pieces in place.

- **Internal fixation**, also called **closed reduction surgery**, uses pins or wires to hold the bone pieces together without making an incision.



- Some fractures need **open reduction surgery** where an incision is made to get to the bone pieces. Bone pieces are set in place and may be held together with pins, plates, or screws.
- **External fixation** uses a frame on the outside of the hand that is attached with pins to the bone above and below the injury.
- **Bone grafts** may be needed if bone is missing or crushed. The bone graft may be taken from another part of your body.

Your hand surgeon will talk with you about the best treatment for your injury.

Healing and recovery

- While the hand fracture heals, your doctor or therapist may have you use a splint to limit motion.
- When you have enough healing, you will need to start exercises to limit stiffness in the hand. Follow the exercises your doctor or therapist gave you to improve your recovery.
- Avoid smoking or use of tobacco products. Tobacco use slows the blood supply to the bone and could slow or prevent bone healing. If you need help quitting tobacco, please talk to your doctor.

As healing occurs, your doctor or therapist will have you start other exercises to help improve motion, strength, and use of your hand. Follow your exercise program.

Recovery time will depend on the type of fracture and any other injuries. It is not unusual for a bony lump to appear at the fracture site. This is called a fracture callus and is part of normal healing. The lump will likely get smaller over time.

Talk to your doctor or health care team if you have any questions about your care.

For more health information, contact the Library for Health Information at **614-293-3707** or e-mail **health-info@osu.edu**.