



**NATIONWIDE CHILDREN'S**  
*When your child needs a hospital, everything matters.*

## Helping Hand™

*Health Education for Patients and Families*

# Phalangeal Neck (Finger) Fracture

Finger injuries are very common in children. Broken fingers (fractures) occur when something hard directly hits the finger. It's a common sports injury but can also happen if a child falls on their hand or their finger gets caught in a door. Sometimes, muscles and tendons that usually help the finger bend may further pull the broken bone apart.

Surgery for broken bones is sometimes needed.

## Symptoms

When a phalangeal neck fracture occurs, there is usually:

- Swelling
- Bruising
- Loss of motion in that finger
- Pain with even slight movement of the finger

## Diagnosis

A doctor or health care provider will order an X-ray of the finger to show if there is a fracture (Picture 1).

## Treatment

Your child may need surgery. It depends on how the fracture looks on the X-ray. Phalangeal neck fractures are unstable and often need:



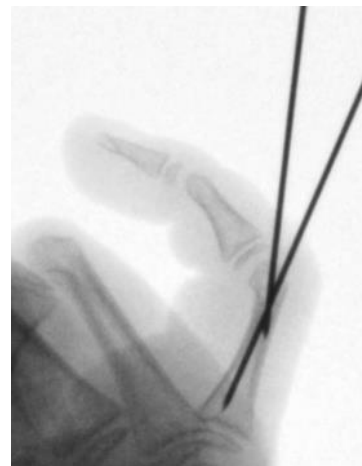
**Picture 1** Three-view x-ray of a small finger phalangeal neck fracture

- Closed reduction – This is when 2 pieces of broken bone are put together and held still with a cast.
- Pinning – If the 2 pieces of bone are pulled apart by tendons and muscles, then the surgeon will first put the 2 pieces together (closed reduction) and then put pins into both pieces of bone to hold them in place until they heal.

## Surgery

Surgery is done in an outpatient setting. This means your child should go home the same day.

- The surgeon will take an X-ray in the operating room to see the fracture.
- The surgeon will do a closed reduction and/or pinning. Pins are pushed into the skin to hold the pieces of bone together until they heal (Picture 2). The ends of the pins on the outside of the skin are bent (Picture 3).
- At the end of surgery, your child's hand will be in a cast or splint and the pins are covered up.
- Without surgery, the bones may not heal the right way. This can cause stiffness, crooked fingers, arthritis, or bone death. Bone death, also called avascular necrosis, occurs because there isn't a good supply of blood to the bone.



**Picture 2** Fracture set and pins inserted.



**Picture 3** End of surgery, outsides of pins bent

Surgical problems can occur. The risk is small but can include:

- |   |   |
|---|---|
| • Bleeding  | • Wound healing problems                    |
| • Infection   | • Harm to the surrounding hand or fingers   |
| • Stiffness   | • Movement of the fracture                  |
| • Deformity   | • Need for more surgeries                   |
| • Bone death  | • Broken or rotated hardware (such as pins) |
| • Bone pieces that do not heal together or heal in the wrong position |   |

## Follow-up

|  |   |
|--|---|
| <b>1 week after surgery</b>                | <ul style="list-style-type: none"><li>• This visit only occurs if your child has a splint. An X-ray will be done to check on the pins in your child's finger.</li><li>• Their splint will be replaced with a cast.</li></ul>  |
| <b>4 weeks after surgery</b>               | <ul style="list-style-type: none"><li>• The cast will be removed.</li><li>• X-rays will be taken to check healing progress.</li><li>• The pins will be removed. There may be some pain during the pin removal. Your child can take acetaminophen (Tylenol®) or ibuprofen (Motrin® or Advil®) before the appointment.</li><li>• Your child's finger will be buddy-taped (see below).</li></ul> |
| <b>3 to 4 weeks after pins are removed</b> | <ul style="list-style-type: none"><li>• Seen in the clinic to check finger motion.</li><li>• An X-ray may be taken.</li><li>• If your child is having a hard time moving their fingers at this visit, they may be referred to a hand therapist.</li></ul>   |

## Buddy Taping

Your child's repaired finger will be buddy-taped before leaving the clinic after the pins are pulled. This means a finger that is not hurt acts like a splint for the injured finger.

- The injured finger can move safely. Being able to move the injured finger early on can help prevent stiffness.
- The fingers should stay buddy-taped until full motion returns.
- You will be shown how to tape the fingers and get extra tape to take home.
- Change the tape when it's dirty or falling off, and for baths or showers.

## When to Call the Clinic

Contact the orthopedic clinic if:

- The splint or cast gets dirty, wet, or starts falling apart.
- There is redness, swelling, or drainage at the pin sites.
- Fingers are bluish -purple and feel cold.
- Your child is crying more than usual or is in pain.
- Your child has a fever over 101° Fahrenheit (F) or 38.3° Celsius (C) after surgery.

### Clinic contact information:

Clinic hours at both locations are Monday through Friday, 8:00 a.m. to 4:30 p.m. Ask for the nurse to discuss any symptoms.

| Nationwide Children's Columbus   | Nationwide Children's Toledo   |
|--|--|
| <ul style="list-style-type: none"><li>• Call (614) 722-HAND (4263) to schedule an appointment.</li><li>• Evenings, weekends and holidays phone (614)722-2000. Ask for the Orthopedic Resident on call to discuss any symptoms.</li></ul> | <ul style="list-style-type: none"><li>• Call (419) 251-2061 to schedule an appointment</li><li>• Evenings, weekends and holidays phone (567) 290-6543 Ask for the Orthopedic Resident on call to discuss any symptoms.</li></ul> |

**Be sure to contact the clinic if you cannot keep any follow-up appointments.**