

# Pediatric Orthopedic Cast Care

## Fracture



A fracture is a break of the bone. It occurs when bone is subjected to more stress than it can absorb. Fractures can occur at any age. Signs and symptoms can vary depending upon the site of injury, the type of fracture, and the amount of trauma that has been sustained by the bone and surrounding tissue. To confirm that a fracture is present an exam and x-ray will be done.

Casts are most often used to help mend broken bones. Casts (1) *immobilize* the injury, (2) *protect* the area recovering from a fracture or surgery, and (3) *reduce pain* caused by motion.

The healing time for a fractured bone will depend on the type of fracture, which bone is involved and age of the person. Children usually heal faster than adults. Most fractures will heal in approximately 6-8 weeks. During this period, your cast may be changed several times.

Special care is required for the first *48 hours* following the injury. To reduce swelling in the afflicted area:

- *Elevate* the casted extremity above the level of your heart. Having your arm in a sling is not enough. Prop your elbow above your chest, hand above your elbow.
- *Wiggle* your fingers or toes frequently to improve circulation.
- *Rest* and take it easy. You can resume most activities in a few days with your doctor's permission.

Be alert for these *warning signs* and report them immediately to your physician or return to the Emergency Room:

1. Pain that is not relieved by elevation or pain medications.
2. Swelling of fingers or toes causing the cast to feel too tight.
3. Change in sensation (numbness, tingling).
4. Unusual coolness or lack of color of the skin.
5. Persistently blue nail beds.

## Plaster Cast

Your first cast will usually be made of plaster. It takes approximately 24-48 hours to dry. Handle it with care. Keep it uncovered to allow it to dry completely. Avoid resting it on hard or sharp surfaces in order to prevent a dent or soft spot from forming and causing a sore to develop inside the cast. Do *not* stand on a walking cast until it is completely dry and your doctor allows it! *A plaster cast must never get wet!*

## **Synthetic (fiberglass) Cast with Cotton Liner**

This cast is completely dry in 15 minutes. It is usually lighter and stronger than the plaster cast; you may walk on it almost immediately, if your doctor allows. *This cast should never get wet!*

## **Fiberglass Cast with ProCel (GORE-TEX®) Liner**

This cast is dry in 15 minutes. *It is the only cast that may get wet.* You may bathe regularly and swim without covering the cast. Be sure to rinse the cast with clean water to remove chlorine, soap and other substances. *NO* special drying procedures are necessary after wetting. Most of the water will drain quickly out of the ends of your cast. The water remaining on your skin will be warmed by your body heat and evaporate through the padding and cast. Do not cover the cast while it is drying. Most casts will feel dry within one hour.

## **Ongoing Care**

1. Examine the cast daily for cracks and/or soft spots. Check the skin for redness, blisters or sores along the cast edges and be alert to any bad odor from the cast. *If you are uncertain about anything, contact Orthopedics for Kids at 933-8588.*
2. Remind your child not to scratch or push anything down inside the cast. Keep small objects that could easily slip into the cast away from the young child. These objects may cause a skin breakdown and lead to a serious infection. Do not use lotion or powder inside the cast. If itching is a problem, you may use a non-prescription medication such as Benadryl. Dosage will vary with the child's age and weight so consult the pharmacist for the appropriate amount for your child.
3. An anti-inflammatory such as Advil or Pediaprofen should be taken for 3-5 days following the injury. These medicines help to prevent swelling in addition to alleviating pain. Stronger pain medication may also be prescribed for more severe pain. It is not unusual for the child to run a slight temperature (100°) for 2-3 days following the injury.

## **Follow-up Office Visits:**

X-rays will be taken to determine when healing is complete. These films can be taken through the cast.

The cast may be changed if it becomes loose or if some healing has occurred and a shorter cast can be used. A special saw will be used to remove the cast.

When the fracture has healed and the cast removed you may notice stiffness, swelling and some discomfort at first. These symptoms are normal and should improve in 2-3 weeks. Patience is the best treatment. Don't overdo exercise or other physical activities.



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