

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.
5. Persistently blue nail beds.

Plaster Cast

A plaster cast 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 850-416-1304.*
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.



Dealing with Pain

Most all children will have some level of discomfort following surgery or a fracture. The amount of pain that your child will experience is dependent on many factors such as:

1. The type & severity of the fracture or the kind of surgery performed,
2. The amount of swelling now and the amount of swelling that develops over the next 48 hours,
3. The type of cast or splint applied, and
4. Your child's "perception" of pain.

We have found that most children are more comfortable if pain medication is given on a consistent schedule for the first 2-3 days following their surgical procedure/fracture. As the child recovers, these medications can be reduced. Pain may be more severe at night and may require continued evening medication dosage to aid with sleep.

Below is our recommended pain management schedule and medication dosage based on your child's age and weight.

Tylenol (every 6-8 hours) - **6am, 12pm, 6pm, 12am** **Tylenol:** _____/dose
Ibuprofen (every 6-8 hours) - **3am, 9am, 3pm, 9pm** **Ibuprofen:** _____/dose
Oxycodone (every 4-6 hours) - as needed for breakthrough pain. Dosage per Prescription

It is important to realize that **all** pain **cannot** be relieved with any combination of medications.

Possible side effects:

Oxycodone

Dizziness

Nausea/vomiting

Drowsiness

Changes in mood

Ibuprofen

Blurred vision

Skin rash

Severe abdominal pain/Vomiting

Blood in stools

Vitamin D3 is important for fracture healing. Please give your child 400 / 600 / 800 / 1000 / 1500 International units DAILY for 3 months.

If you have any questions or concerns about your child's pain or discomfort, please do not hesitate to call.

While your injury is healing...

NO

Running, jumping, jogging, climbing, skipping, hopping, wrestling, bike riding, skateboarding, ballet, tap, jazz, square dancing, cheerleading, cheernastics, gymnastics, basketball,

volleyball, football, soccer, baseball, softball, ice hockey, field hockey, bungee jumping, climbing trees, karate, judo, yoga, aerobics, step, spinning, pilates, horseback riding, calf roping, barrel riding, bull riding, skiing,

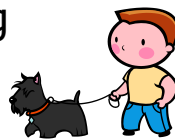
snowboarding, tobogganing, snowmobiling, tumbling, falling down, falling up, tripping, stumbling, swimming, skating, four wheeling, three wheeling, riding in or driving golf carts, riding a scooter, surfing, parasailing, sky diving,

unicycling, motorcycling, dirt biking, motocross, ping pong, tennis, badminton, squash, racquetball, handball, jai alai, waterskiing, jet skiing, wake boarding, boating, lacrosse, polo, tag, hide and seek, hop

scotch, swinging statues, dodgeball, tetherball, war ball, four square, kickball, monkey bars, tug of war, trampolines, slides, swings, moonwalks, walking

chasing the dog, tripping over hiking, spelunking, rafting,

rowing, step dancing, clogging, weightlifting, shot put, high jump, long jump, hurdles, javelin throwing, skeet shooting, hunting, fishing, curling, cricket, figure skating, speed skating, scuba diving, snorkeling, rugby, boxing, kayaking, fencing, archery, rope jumping, rock climbing, repelling, mountain climbing, hang gliding, paintball, Frisbee, marksmanship, or bowling.



Wet Casts

A wet cast is capable of causing serious damage to your skin! Do not participate in ANY activities in which your cast might come into contact with water. This means that you should not be near a pool, a lake, an ocean, or any other area in which you might be splashed with water. Cast guards (no matter what the packaging might say) are NOT fool proof. We have had to remove many wet casts as a result of these products.

If you do happen to get your **fiberglass cast with cotton liner wet**:

- Allow the excess water to drain out of the ends of the cast
- Take a hair dryer and blow your cast with the “cool” setting for 8-12 hours
- Call DURING BUSINESS HOURS ONLY and make an appointment to come have your cast changed. Cast changes will only be conducted within business hours and are NOT considered routine cast care. The physicians will NOT come to the ER or clinic to change a cast outside of routine hours. There will be a charge for all materials and labor that go into an unplanned change.

Wet casts cause blisters, pain, infection, and skin irritation. Wet casts are avoidable!!! It is YOUR (parent and patient) responsibility to keep the cast dry and therefore you assume all liability for a wet cast and the damage it can produce.

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