

Your Child's Broken Bone: General Information

General Information About Broken Bones in Children

Broken bones, or fractures, are very common in childhood. A splint or cast is almost always necessary for healing. Fortunately, children's fractures heal quickly and without many problems. Do not worry if the x-ray does not show perfect alignment or position of the bone ends. Because children are growing, fractures are able to heal and remodel. Remodeling means that as the bone grows, it will change its shape to come back into 'normal' alignment. Growing bones can remodel dramatically, therefore surgery to put the bones in perfect alignment is only needed with certain types of fractures.

Bones grow from a growth center or growth plate. This growth plate is made of cartilage and is a weak point in the bone. Fractures through the growth plate are common in childhood but fortunately do not usually affect normal growth.

Instructions for Care after the break and the Cast is applied:

Swelling:

- Expect swelling for the first few days, especially in the fingers and toes
- Elevate the limb. Put the arm or leg on a pillow and elevate the limb above the level of the heart. This reduces swelling.
- Move the fingers and toes frequently - encourage wiggling - this helps reduce the swelling too

Icing:

- Applying ice packs, even over the cast, may reduce pain and swelling
- Apply ice for 10-15 minutes, 4-6 times per day
- Never apply ice directly to skin

Pain:

- Discomfort will be mild- moderate for the first few days and will gradually get better
- Most children will need some pain medication - usually Tylenol(acetaminophen) or Advil(ibuprofen) is strong enough.
- In the first day or two after the break, it is better to give the pain medication regularly e.g. every 4-6 hours, rather than wait until the pain is bad.
- Give the appropriate dose of Tylenol or Advil based on your child's weight - check the bottle or you can ask a pharmacist, nurse or doctor to help you with this
- Your doctor may prescribe something stronger such as Tylenol with Codeine
- Gradually decrease pain medications as pain decreases

Bathing:

- Cover the cast with a plastic bag tightly sealed above the cast to keep the cast dry for showers or shallow baths. Commercially available plastic sealers are also available.
- Use a handheld shower nozzle to help keep the injured limb out of the main stream of water.

Activity:

- For the first 48 hours, have your child rest and take it easy, frequently elevating the limb
- Most children will intuitively adjust their activities based on how the fracture is feeling and healing- listen to your child
- Your child can participate in Physical Education with a cast on providing s/he feels able. If your child doesn't feel ready to participate, trust their feelings.

Return to School:

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- When your child is able to return to school depends on:
 - how much pain & swelling your child is have after the injury
 - how well they are able to get around on crutches if needed
- Usually, most children will want to stay home for at least a day or two but can return to school when they are comfortable and not requiring much pain medication. This can be around a week or sometimes longer for some breaks.

How to Take Care of Your Cast:

- *Keep the cast dry.* Even if a fiberglass cast with waterproof padding has been applied, moisture under the cast causes the skin to become very itchy and damaged. If a fiberglass cast gets a little moisture around the edges, use a hairdryer on the “cool” setting to carefully blow dry through the layers.
- *Do not put objects or substances down the cast.* Many times casts feel itchy and it is tempting to put a knitting needle or other object down to scratch the skin. This only makes the problem worse and can injure the skin causing an infection. Cool air from a blow dryer can help the itchiness.
- *Check the cast for cracks.* If cracks occur at the joints the cast may need to be reinforced or reapplied. Some softening of the cast material at the lower or upper ends is common and not usually a problem.
- *Do not alter the cast or attempt to remove it at home.* Decorating the cast and having friends sign it is perfectly

acceptable, but do not attempt to trim the cast or add extra padding without advice.

What are the Risks of Casts:

There are few risks to casts. The main problem is tightness due to swelling in the first two days after injury. Sometimes sores can occur where the cast is rubbing at the edges. We would be happy to trim the cast in the cast room as necessary.

How Long will the Cast be On?

Most children's fractures will need a cast for between 3 and 6 weeks. This depends on the type of break, the age of the child and other factors. Your surgeon will look at x-rays and examine your child to decide if the break is healed enough to take off the cast.

How is the Cast Taken Off?

Removing the cast requires the use of a cast saw. This can be stressful for children since the saw is quite noisy. There is a vacuum cleaner attached to the saw to vacuum cast dust. The vacuum is loud like a household vacuum. The blade of the cast saw vibrates so it cuts cast material but does not cut skin.

Parents can help their child prepare for cast removal by calling the saw a "magic saw" that tickles but does not hurt. Practice with a vacuum cleaner against the cast at home. Bring ear protectors, or your child's favorite music with headphones to the cast clinic with you.

What will happen after the Cast is Taken Off?

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Your child might be apprehensive or cautious with the limb for a few days. Usually no specific restrictions are necessary. Some surgeons may recommend avoiding high risk sports or contact sports for several weeks after the cast is removed. Children will be as active as they feel the limb allows and you can trust their intuition.

Physiotherapy is also not usually necessary after children's fractures because they recover range of motion and normal activity so rapidly on their own.

Is there a chance that this break will cause long term problems?

Most children's fractures heal easily and do not cause any long term problems. Your surgeon will inform you if follow-up is necessary for growth related issues.

What will happen at the Cast Clinic?

The Orthopaedic or Cast Clinic is either at the **Victoria General Hospital** on the main floor near the Tim Horton's or at the **Royal Jubilee Hospital** on the main floor at Clinic 3. It is often very busy because of the number of fractures your surgeon needs to take care of. Please be prepared to wait some time (sometimes 2-3 hours) for the appointment. Bring books, colouring, toys, snacks or other things to occupy your child. X-rays, when necessary, will be done at the same time and this also causes occasional delays.

Your surgeons and staff at Rebalance^{MD} enjoy taking care of children and will do everything they can to ensure the best possible outcome. Please let us know if there is anything that we can do to help your child's recovery.

Follow Up Appointment:

- If you have surgery, a post-operative appointment should be scheduled for approximately 7-14 days post surgery
- If your break was treated without surgery, you should have an appointment and new xrays usually within 7-14 days of the break to ensure that the break is healing in a good position
- Call the office if you do not have an appointment scheduled
- Write down your questions for the surgeon before the appointment

Call your Surgeon if you have:

- Increasing pain that doesn't get better with ice, elevation or pain medication
- Extreme tightness of the cast resulting in the hand or foot feeling numb or tingly
- Fingers or toes turning white, purple or blue compared to the other side.
- Loss of movement of toes or fingers
- A pressure point inside the cast that is persistent and painful
- Any unusual odor or drainage coming from inside the cast that might mean an infection
- Breakage of the cast or the cast coming loose
- Skin around the edges of the cast getting red or raw
- Fever greater than 38.5°C
- Persistent nausea and vomiting

If you cannot reach your Surgeon:

- It is best to go to a hospital emergency department. Most family doctors offices and walk-in clinics do not

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have the equipment to remove or adjust a cast if this needs to be done.

Non-emergency health information and services:

- HealthLinkBC www.healthlinkBC.ca
- Tel: 811 from anywhere in BC
- Tel: 711 for deaf and hearing impaired assistance (TTY)

The information in this handout is intended only for the person it was given to by the health care team. It does not replace the advice or direction given to you by your surgeon.