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# Fractures, Casts and Splints:

## Information for Parents and Caregivers



An agency of the Provincial  
Health Services Authority

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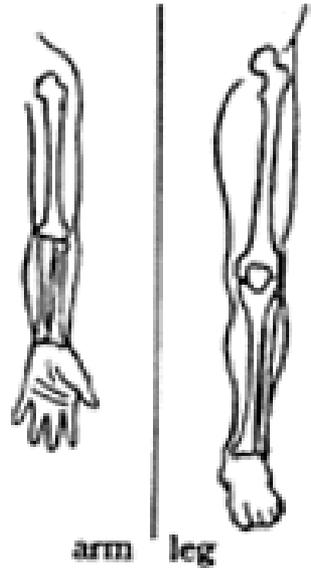
# What are fractures?

A fracture is a break in the bone.

Ask your child's doctor to mark on the picture where your child has the fracture.

Fractures cause a lot of pain and swelling in the injured bone. The pain and swelling are reduced if the bone is allowed to rest. Too much movement of an injured bone causes more pain and swelling.

Fractures heal best when the broken bone is held still and allowed to heal. This is done by placing the injured body part in a cast or splint. The cast or splint protects the bone while it heals. A cast or splint will also reduce the amount of pain and swelling in the injured bone.



Fractures take time to heal, and often can take several weeks.

# What are casts and splints?

Casts and splints are supportive bandages that are built to fit the part of your child's body with the fracture.

## Casts

The cast is made of 2 layers:

1. A soft, cotton padded non-waterproof or a waterproof liner that covers the skin of the injured part of your child.
2. A hard, shell-like fiberglass layer that completely surrounds the fracture. It provides the most support to your child's injured bone.

## **Splints**

A splint is a partial cast. It has a soft, padded layer and a hard layer. The hard layer partly surrounds the injured part of the body to stabilize the fracture while it heals.

A splint may be used for minor fractures. It may also be used for newly broken bones if the area around the injury is swollen. The splint will usually be replaced with a cast after the swelling has gone down for more protection.

The cast or splint is fitted snugly to the injured part of your child's body. The cast or splint should not be too loose, or else it will fall off. The cast or splint should also not be too tight, or else it will cause problems with swelling and rubbing underneath the layers. The fit of the cast or splint is checked after the hard layer dries.

## **How do I care for my child during the first 36 hours?**

### **ARM Casts or Splints:**

If your child has an arm cast he or she may go home with it in a sling. You can take the sling off unless the doctor asks you to keep it on. It is better to move the arm above and below the cast so that the joints do not stiffen.

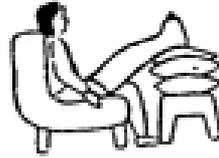
### **LEG Casts or Splints:**

Encourage your child to rest on a bed, couch or easy chair. This will depend on your surgeon's instructions.

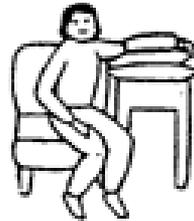
Help your child change positions about every 2 hours.

Broken limbs may swell. You can help prevent swelling by raising your child's limb above the level of their heart. To do so, rest your child's limb up on 2 or 3 cushions. See diagram.

## For a leg cast:



## For an arm cast:



Your child may feel uncomfortable or frustrated at first. Most children get used to the cast quite quickly. Offer lots of different activities like books, games, and music to help pass the time.

Your child may need crutches. Ask your child's health care provider about where you can borrow, rent, or purchase them.



To learn more about crutches, read the *How to Use Crutches* pamphlet. You can find it under 'C' in the BC Children's A-Z pamphlets at: [www.bcchildrens.ca/KidsTeensFam/A-ZPamphlets](http://www.bcchildrens.ca/KidsTeensFam/A-ZPamphlets)

## How do we care for the cast or splint?

1. **Keep the cast or splint dry.** If the cast or splint gets wet, the layers will begin to soften and will not be able to support the injured bone well. The skin under the cast can also become damp, sore, and irritated. If the cast or splint gets a little wet, you can dry it with a hairdryer on a cool setting.
2. **Keep the cast or splint clean.** If the cast or splint gets dirty, bits of dirt can get trapped in the soft layer and irritate your child's skin.
3. **Protect the cast or splint from being hit.** The hard layer is strong but will break after repeated blows.
4. **Look for rough edges to the cast or splint.** The cast or splint may develop rough or sharp edges, especially near the fingers and toes. If the skin looks red, sore, or raw, please call the Orthopedic Clinic Nurse. If your child has not had an appointment in the Orthopedic Clinic, go to the nearest Emergency Department.
5. **Avoid scratching.** Your child may feel the skin under the cast or splint is itchy. Do not stick objects (e.g. knitting needles, sticks) under the soft or hard layers to scratch. This can damage the skin and cause an infection.

Blowing cool air from a hairdryer under the hard layer can help reduce itchiness. Be careful! Even air from a hairdryer can burn the skin. You can also use a "loonie" or a "toonie" to rub on top of the cast, the vibration can help with the itch.

6. **Elevate the cast.** Elevating the part of the body covered by the cast or splint above the level of the heart will reduce swelling.
7. **Keep moving.** Your child should wiggle their fingers and toes. This reduces swelling and helps healing.

8. **Protect the cast while bathing your child.** If your child has a leg cast, you can give him or her a sponge bath. If your child has an arm cast, he or she can sit in the bathtub **ONLY** if they are old enough to keep their arm out of the water. Make sure to wrap your child's arm in a plastic bag for bath time and fill the bath with a small amount of water.



### **Who do I contact in case of emergency?**

Contact your child's doctor or the Orthopedic Clinic Nurse immediately if:

- Your child feels that the cast or splint is too tight, despite elevating the cast or splint above the level of their heart for 15 minutes. Please note that the cast or splint will feel tight until your child gets use to wearing it.
- Your child complains about pain under the cast or splint that does not go away or gets worse with pain medicine. Pain is common the first few days.
- Your child cannot move or feel you touch his or her fingers or toes.
- Your child feels that his or her fingers or toes are numb and tingling.
- Your child's fingers or toes look blue, swollen, or feel cold.
- Your child has another injury to the part of the body that is covered by the cast or splint.
- Your child's cast or splint has a bad smell.
- Your child's cast or splint seems to be cracked, broken, wet, or soggy.
- You see less of your child's fingers or toes at the end of the cast or splint. This may be because the cast or splint is too loose or has slipped.
- Your child has an unexplained fever (temperature above 38 degrees Celsius or 100 degrees Fahrenheit).

If you are unable to get a hold of your child's doctor or the Orthopedic Clinic Nurse, go to the nearest Emergency Department.

## **When will my child be seen in the follow-up clinic?**

Your child's Orthopedic Doctor will determine when your child will be seen in the follow-up clinic. At your follow-up appointment, the orthopedic doctor will check to see if the bone is healing properly.

The Orthopedic Doctor will also decide when your child's cast or splint can come off. You will be contacted by the Clerk with your appointment date and time.



If you have questions regarding your appointment please contact the Clerk at: 604-875-2345 extension 7134.

## **When will my child's cast or splint be removed?**

Before your child's cast or splint is removed, he or she will usually have an x-ray to check that the bone is healing properly.

Once your child's fracture has healed, his or her cast or splint will be removed. This is done at the Orthopedic Clinic. The Orthopedic Technologist will remove the cast or splint with a special saw. The saw's blade is dull. It's the vibrations of the saw that will break the cast, not the blade. So it can't hurt or cut your child's skin.

Your child's arm or leg may look smaller and thinner. With a little bit of exercise, it will return to its normal size. The arm or leg may also swell a little after the cast or splint comes off. If this happens, raise it up on pillows or a footstool. Get your child to wiggle his or her fingers or toes often.

At first, your child may be afraid to use his or her arm or leg. It may feel stiff, weak, or a little painful. Encourage your child to move his or her arm or leg. Very soon, your child will be using that part of his or her body with confidence.

Before your child leaves the hospital, discuss what activities your child should or should not do for the next few weeks.



## **How do I contact the Orthopedic Clinic Nurse?**

To contact the Orthopedic Clinic Nurse, call 604-875-2345 extension 7273.

At BC Children's Hospital, you are an important member of your child's health care team. Please ask questions so you understand and can be part of decisions about your child's care and treatment.

**It's good to ask!**

*Developed by the health professionals of the Orthopedic Clinic  
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