

Serial casting fact sheet

Congratulations! You and your child are starting out on a process that will give your child more flexibility, greater strength, and a more efficient walking pattern. But, there are some problems that can go along with wearing casts. Here are answers to some questions parents commonly ask.

How does casting work?

When your child has limited movement of a joint, it is often because the muscle is too short and lacks the flexibility to allow easy movement of the bones of the joint. A cast is applied to hold the joint in a position where the muscle has slight tension. The muscle responds to this tension by adding extra muscle cells to make the muscle longer and more flexible. The cast is replaced every 7 days. We normally cast both legs.

Benefits:

- Painless – no surgery or sedation needed
- Preserves the muscle's ability to produce power
- May be repeated if needed

Drawbacks:

- Takes several weeks
- May cause localized temporary muscle weakness
- Cast lining must not get wet

How many casts will we need?

Because each child is unique in the pattern of muscle tightness, it is impossible to tell exactly how many casts will be needed. On average, about 5 degrees of flexibility is added with each cast. A typical length of time is 8 to 12 weeks. If neurological factors are involved, the casting process will be longer.

How can we do baths?

The casts cannot get wet because if the inner cloth lining is wet it can cause skin irritation and/or blistering. We recommend using a waterproof sock to keep the cast dry. If you are unable to purchase one there are alternative ways to keep the cast dry. One alternative that we recommend is to wrap the cast in two or three layers of plastic wrap or shrink wrap (less expensive and available in home improvement stores). Then put a plastic bag over the top of that and wrap the open end with more plastic wrap or shrink-wrap. Do not submerge the cast. Take a quick shower or let the cast dangle outside the bathtub.

What activities can my child be involved in?

After getting used to the additional weight and awkwardness of the cast, your child should be able to do everything that he/she was doing without the cast. In fact, we encourage your child to be as active as possible. Use appropriate precautions to keep the cast from getting wet. Wearing a sock over the front of the cast helps reduce the amount of dirt, gravel, and other things that get into the cast.

How is the cast removed?

We use a cast saw that we call "Tickler". Instead of spinning around, the blade of "Tickler" rapidly vibrates back and forth to generate the force needed to buzz through the fiberglass. Your child will feel the tickle of the vibration and some of the heat that is generated by the vibration. We put "racing stripes" of foam along the sides of the casts in order to reduce the amount of heat that can pass from "Tickler" to your child.

Mom, it itches!

Yes, itching can be a problem because the casts are snug and hold in heat and body moisture. Also, casting interrupts the body's usual habit of sloughing off the dead skin cells.

To lessen itching, keep the body part inside the cast as dry and as cool as possible. Use an ice pack, a fan, or a hair dryer on the cool setting.

Never poke anything down inside the cast to scratch. A non-prescription medication such as Benadryl may also be used to reduce severe itching.

Do we have to use the cast boots?

Cast boots help keep the casts dry and clean. Also, the rubber on the soles makes a non-skid surface. If you don't want the cast boot worn in your home, there are other options to keep your child from slipping:

- Use slipper socks that have rubberized bottoms.
- You can buy a commercially available rubberized coating that can be painted onto a pair of old socks or slippers.

What if there are problems?

Because the cast is put on with only a very slight stretch, the cast should never cause pain. But because the cast is heavy and awkward, your child may be tired. Over the counter medications such as ibuprofen or acetaminophen may lessen muscle aches.

If you have any questions or concerns, call the physical therapy department during regular business hours. In case of pain after hours, the cast can be removed in Children's Emergency Department. Please bring the emergency cast removal prescription with you to the emergency department.

What happens after serial casting?

Orthotics are worn to help keep the joint flexibility that has been gained by serial casting.

Daytime orthotics are recommended for several months until desired walking pattern is well established.

Physical therapy will be needed weekly for several months. This is because most children do not develop a new walking pattern on their own after they have gained more joint flexibility from serial casting.

Your appointment information:

1st Appt Scheduled: _____

Appt Day: _____ Time: _____

Please wear loose fitting pants to your first appointment.

- Children's – Minneapolis
Children's Specialty Center
2530 Chicago Avenue S. Suite 267
Minneapolis, MN 55404
612-813-6709
- Children's – Minnetonka
5950 Clearwater Drive, Suite 500
Minnetonka, MN 55343
952-930-8630
- Children's – St. Paul
310 Smith Ave North, Suite 400
St. Paul, MN 55102
651-220-6880

Questions?

For more reading material about this and other health topics, please call or visit the Family Resource Center library, or visit: childrensMN.org/A-Z.