



With the children and their family



Centre de réadaptation
Marie-Enfant
CHU Sainte-Justine
Mother and Child
University Hospital Center



5200, Bélanger Street East
Montréal (Québec) H1T 1C9
Tel.: 514 374-1710
readaptation.chusj.org
crme-web.hsj@ssss.gouv.qc.ca



Centre de réadaptation
Marie-Enfant
CHU Sainte-Justine
Mother and Child
University Hospital Center



Serial inhibitory casting

Technical Aids Program
This brochure is intended for children and their family

Monitoring

The cast **must be removed** as soon as possible in the following cases:

- Any liquid infiltration, even minimal.
- Changes in toe pigmentation (white or blue).
- Swelling of the toes.
- Constant tingling or numbness.
- Reduced mobility in the toes.
- Significant pain that is not relieved by medication and that lasts more than 48 hours.

If the cast needs to be removed earlier than planned, weekdays between 8 a.m. and 4 p.m., please contact us before going to the CRME. Outside these hours, go to the closest hospital emergency with the **emergency removal letter**. This document is confirmation that the cast is not used to stabilize a fracture; the hospital may refuse to remove the cast without it.

Please notify us as soon as possible if you had the cast removed, as we may need to see your child sooner than planned.

Recommendations and precautions following treatment

Your child's ankle may be weakened as a result of being immobilized for an extended period of time. To prevent injury, your child should avoid running and jumping for at least 48 hours after the cast is removed.

If you were taught a stretching regimen before treatment, you can now resume it. If your child was prescribed an orthosis, have him or her wear it as recommended by your doctor.

You should encourage your child to put his or her heel down first when walking.

If your child gets back into the habit of walking on the tips of his or her toes, purchase laced shoes that cover the ankle and consult the physiotherapist or doctor.

For more information or if you have any questions, contact the:

**Technical Aids Program at
514-374-1710, extension 8022**

Brochure created by the Technical Aids Program's team of orthotics and prosthetics technicians and physiotherapists.

Revised by Ariane Lorange Milette, Physiotherapist

Your doctor has prescribed serial inhibitory casting treatment. The purpose of this treatment is to improve muscle flexibility, foot alignment and walking. The prolonged stretching from the cast enables the progressive lengthening of the Achilles tendon and shortened calf muscles. The child contributes to the stretching by walking with the cast. This treatment also has an inhibitory impact on spasticity. Botox® injections sometimes precede treatment, depending on the doctor's recommendations



Botox^{MD}: Injectable medication that temporarily weakens a muscle.

Spasticity: Involuntary contraction of the muscle (spasm) or increased muscle tone.

Spasticity inhibition: manoeuvre that consists of stretching the muscle to reduce spasticity.

Phlebite: Blood clot formation in a vein.

How it works

Your child will get a series of casts, replaced every 7 to 10 days.

Although referred to as «casts», they are actually made of polymer bands, unlike traditional white casts.

Maintaining a regular way of life during treatment

Your child can walk and even run lightly while wearing the cast, BUT he or she must not jump.

Your child will probably be slowed when taking the stairs; you should warn his or her teacher or daycare monitor to let your child go first so as to avoid any scrambling and reduce the risk of falling.

Your child could still take part in physical activities so long as they are adapted appropriately and respect the above-mentioned precautions.

It is important to make sure that your child's feet have ground support when he or she is sitting.

Hygiene and maintenance

The cast does not require any particular cleaning. To ensure the best possible conditions during treatment and prevent having to remove the cast early, please follow these tips:

- **Avoid any liquid seeping into the cast.**
- Instead of baths, wash your child with a washcloth.
- Clean between and under the toes using a damp Q-tip.
- Have your child wear a diaper at all times if incontinent.
- Have your child wear shoe covers as protection on rainy days (you can rent them out here).
- We recommend covering the cast with a large sock to keep the bed clean.
- Avoid any foreign bodies (sand, rocks, small toys, food) in the cast to prevent the formation of sores.

Potential problems

Treatment by serial inhibitory casting may cause some discomfort:

Pain

If your child feels pain at the calf or Achilles tendon, you can, with your doctor's approval, give him or her acetaminophen (Tylenol®) or ibuprofen (Advil/Motrin®) for relief. If the pain occurs at night, you can place a small pillow or rolled up towel under your child's knees to keep



them bent. This will make it more comfortable. **If the pain persists, call the Technical Aids Program and speak with the technician.**

Itchiness:

To relieve itchiness, you can blow cold air into the cast using a hair dryer. **Never blow hot air into it.** Avoid scratching the skin inside the cast. The skin is delicate, and a scratch could easily lead to a risk of infection.

Odours:

The cast will most likely cause unpleasant odours. The only thing you can do is carefully clean your child's toes. **Do not use powdered deodorant.** The technician will wash your child's feet with soap and water between each cast.

Given the immobilization of the limb, the inability to check the skin and the ankle's movements under the cast, there are some potential risks associated with the treatment:

- Blisters
- Pressure sores
- Tendinitis of the Achilles tendon
- Phlebite

Your child is your indicator that treatment is going well. If he or she complains, try to learn the exact source of discomfort.