

Caring for your child in a Hip Spica



Introduction

Taking care of a child in a hip spica cast can be a challenging experience for you and your child. Your child will go home from the hospital in a hip spica cast. Both the cast and your child will require special care as long as the cast is in place. This pamphlet has been prepared to answer some of the questions you may have

Although the cast may seem bulky and awkward, it serves a very specific purpose: to keep the broken bone in place and maintain the correct position for healing. The instructions in this booklet as well as those reviewed by the different professionals treating your child should be followed to ensure your child's maximum comfort and safety.

Individuals providing your child's care, such as other family members or babysitters, should also be given the instructions in this booklet to ensure that proper care of your child and his/her cast is consistent.

What is a hip spica?

A hip spica is a large cast around the torso and all or parts of the leg. The cast extends from across the nipple line in the front and back, down the body to the affected leg and just above the knee on the unaffected leg. An area around the groin is left open to allow for toileting.

Care of the cast

Drying the cast

The cast can be made of plaster or fibreglass. After being applied, it takes about 48 hours for the plaster cast to dry; the fibreglass cast dries within a few hours only. While the cast is drying, it is

important to keep the cast uncovered. Frequently turning your child on his/her stomach and/or his/her side speeds up the drying process.

Ensuring cast integrity

- Inspect the cast for cracks or softness daily. If movement is possible at the joints, then repair is necessary.
- Waterproof plastic tape will be applied to the cast around the genital area to help prevent soiling and around the stomach to prevent crumbling at the edges.

Cleaning the cast

- If the cast gets dirty, you can clean it with a damp (not wet) cloth and a small amount of powdered cleaner (Ajax, Comet, etc.)
- Expose the damp area to air to dry
- If the cast starts to smell bad, rub a small amount of dry baking soda onto the soiled area.

Skin and body care

- Give your child a sponge bath daily. Be careful not to get the cast wet. Using a damp cloth, reach under the cast edges to remove plaster crumbs and food particles.
- Carefully check beneath the cast edges for skin irritation, redness, blistering, open areas or pressure spots daily.
- Do not put anything inside the cast to scratch the skin as it may cause skin to open or get stuck inside.
- Do not use powders, lotions or oils under the cast or around the edges. It will soften the skin, making it easier for the skin to open or get irritated.
- To wash the hair, place your child on a surface at the height of the sink. A spray attachment can be fitted to the taps, or a jug can be used to rinse the hair.

Diapering and Toileting

- Proper positioning of the diaper will help keep the cast clean and dry. Keeping your child's in a slightly upright position will help drain urine and stool away from the cast.

Diapering infants/toddlers:

- Use disposable diapers only. Tuck edges of the diaper inside the edges of the cast.
- A sanitary napkin, incontinence pad or cotton balls can be placed inside the diaper for extra absorption.
- It is better to use a smaller size diaper to tuck inside the cast and a larger one over the cast to secure it.
- Frequent, regular checks must be made (at least every 2 hours during the day and every 4 hours during the night) to make sure the pad/diaper is changed as soon as it becomes wet or soiled. This will help in preventing skin irritation or soiling the cast.
- Allow the diaper area to be open to air for a few minutes each day. This will decrease the possibility of rashes and skin irritation.



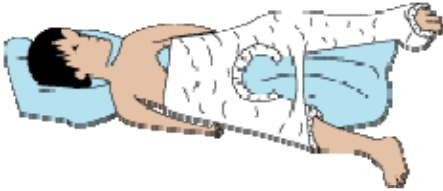
Using the bedpan for older children:

- To use a bedpan, turn your child on his/her side and place the bedpan under the buttocks. Then turn the child back onto the bedpan. Check between his/her thighs to be sure the bedpan is properly positioned.
- A folded cloth, gauze pad or toilet paper placed on the back of the bedpan will absorb any moisture and keep the cast clean and dry.
- Putting toilet paper in between the legs will also help by absorbing the urine.
- Bedpans can be purchased at a local pharmacy.

Turning and Positioning

- Before your child is discharged from the hospital, the nurse and the physiotherapist will show you how to turn, position and lift your child.

- Your child must be positioned properly and turned regularly to prevent skin problems and to allow for maximum comfort. Position your child with the head and upper body slightly elevated at all times.
- Reposition your child with pillows at least every 2 to 4 hours, including during the night.
- Make sure that the cast is not digging into the shin (lower leg) and check the toes; your child should be able to move his/her toes, and they should NOT be bluish, reddened, swollen, very hot or very cold.

	<p>Back: position pillows under the head, neck and under the legs. The heels should be free of pressure.</p>
	<p>Stomach: place pillows under the stomach and make sure the toes are not touching the mattress by placing a pillow or rolled towel beneath the ankle of the cast leg.</p>
	<p>Side: place a pillow underneath the head, one behind the back to prevent rolling, and one between the legs to support the cast.</p>

Mobility

- Your child may be out of bed in a stroller or wagon if the cast size allows it. For a larger child, a reclining wheelchair with elevated leg rests may also be used.
- Always place a pillow under the buttocks, and check for changing colour of the toes.
- The playpen is a safe place to play. Your child can also be placed on a rug or blanket on the floor, in a safe area of the room.

- Remember to use proper safety measures at all times: side rails on beds, seat belts, and safety straps as appropriate for age and size.
- Always use proper body techniques when lifting your child:
 - Hold your child as close to you as possible
 - Bend your knees, keep your back straight
 - Lift by straightening out your legs
 - Do not twist at the waist; instead pivot the legs

Transport

- Children in a hip spica cast must be safely restrained while riding in a car. Babies usually fit in their car seat.
- For older children a special harness or car seat is necessary.
- It is illegal to place your child in the back of panel vans or station sedans, as no securing device is present and the practice could be dangerous for the child and other occupants of the car in the event of sudden braking.
- The physiotherapist will determine which option is the safest way to transport your child in the car and will teach you the proper use of these options.
- The special harnesses and car seats can be rented from the Trauma Program when available.

Clothing

- Casts add extra bulk so larger clothing will be necessary. Loose clothing, such as sweatpants or a sweatshirt, is best. Alter pants by cutting along the inner or outer seam of the leg and put some Velcro or snaps.
- Do not forget socks or booties to keep the feet warm.

Pain / Discomfort management

- Your child may experience pain, muscle spasms or itchiness. Appropriate medication will be prescribed and the nurse, prior to discharge, will give you the instructions.
- Spasms: it may happen that your child is sitting calmly, and then the muscles suddenly contract, causing the leg or body to “jump”. These spasms can occur for the first 24-72 hours following the injury.
- It can be difficult to interpret an infant’s cries. These are a few things to check for:

- Does the diaper need to be changed?
- Is your child uncomfortable, and needs to have his/her position changed?
- Is your child experiencing spasms, pain or itchiness?
- It can be very challenging at first, but you will get to know your child's reactions and be able to comfort him/her properly.

Hints for making the itching more tolerable:

- Blow COOL air from the hair dryer onto the cast
- Gently rub the skin around the cast edges

Diet

- Avoid introducing new fruit juices or foods that could cause loose stools.
- If age appropriate, have your child drink plenty of fluids and eat a variety of fruits and vegetables to prevent constipation.
- Decrease the amount of fluids in the evening before bedtime.
- It is better to eat frequent small meals to prevent stomach cramps or pain.

Activity

- Keeping your child busy and stimulated is important, but remember your child should not stand or walk with the cast.
- Place different toys within your child's reach.
- Include your child in family activities, encourage friends to visit and take your child on outings, but always ensure that your child is properly secured.

School

- For school aged children, homebound teaching should be arranged with the school. The trauma coordinator will provide the necessary medical certificate.

Safety

- Never leave a young child alone.

- Always protect your child from rolling or falling by keeping him/her strapped into wheelchairs, chairs, strollers and car seats. Use a safety side rail for beds or put the mattress on the floor.
- Have an emergency plan ready in case of fire or when the child must be quickly removed from the house. For example, have a blanket ready; the child can be placed on the blanket and pulled to safety.

Possible reactions that can be expected

- Children 2-6 years of age have active imaginations and can often perceive accidents as punishments for their actions. Nightmares related to the accident/incident may be common. It is very important to emphasize that it is not the child's fault. Nothing the child SAID or DID caused the accident. Explain to siblings also that it is not the child's fault. There sometimes are frustrating things that happen that even adults don't understand. These may be things you need to repeat often to reassure your child.
- Establish a schedule that is age and developmentally appropriate. It will encourage normal development and a routine.
- Try to organize within your schedule, family members and friends to stay with the child so you can take a break. Six weeks is a long time and caring for your child during this time could become very trying without help.
- It is possible that your child may return to old habits for comfort (Example: using a pacifier, using baby talk, bed wetting, etc). This is a perfectly normal response to the child's experience. Continue to encourage and model age and developmentally appropriate actions.
- Your child may also become a little more aggressive and angry. Children do not have the same vocabulary as adults and thus cannot always express their feelings verbally. This is often how your child is trying to tell you that he has had enough. Provide your child with opportunities to play through frustration. Playing will help distract them and relieve built up frustration.
- Offer your child opportunities for **self-expression** such as:

Modeling clay/play
dough
Throwing a ball
Finger painting

Foam leggos
Drawing
Playing musical instruments (drums, piano etc...)

- Tapping, hitting, pounding in a play setting provide the child with a safe environment to release emotions and aggression.

Activity ideas: being at home

- Bubble blowing, catching and counting.
- Puppet play and dramatic play.
- Making a scrapbook with pictures, drawing and souvenirs of the whole adventure.
- Decorating the cast.
- Playing with building blocks, allowing the child to express him/ her self through symbolic play.
- Health care play with a doll and play doctor's kit. Let your child explore their own health care experience.
- Giving the child as many choices as realistically possible (what to wear, eat, play...).
- Reading books together, learn about something new.
- Making a puzzle.
- Arts and crafts activities (drawing, painting, making things...).
- Playing with remote control cars.
- Allowing time for television, video games and movie watching, handheld video games.
- Slowly taking your child on short excursions. At first he/she may not be able to be out for long, but gradually you can extend the time.
- Finding out if activity centers and exhibitions are wheelchair accessible (Biodome, cinema...).

Children have a phenomenal capacity for living moment to moment. They can be in terrible pain one minute and be completely captivated by something else the next. It may not always be easy, but if you can keep them occupied/distracted and having fun; their anxiety, stress and frustration can be greatly reduced.

Possible complications and their prevention

Complication	Prevention
Stomach pain / cramps	<ul style="list-style-type: none">▪ Avoid overeating▪ Encourage frequent small meals
Constipation	<ul style="list-style-type: none">▪ Encourage a well-balanced diet of vegetables and fibre▪ Encourage fluid intake▪ Give a mild laxative as directed by your doctor
Itchiness / discomfort	<ul style="list-style-type: none">▪ Keep your child cool in hot weather▪ If persists, consult doctor or pharmacist
Sores under the cast	<ul style="list-style-type: none">▪ Do not let your child put anything inside the cast▪ Keep the cast clean▪ Do not pull out the padding
Boredom / depression	<ul style="list-style-type: none">▪ Involve your child in family activities▪ Encourage friends to visit▪ Take your child on outings as possible

When to call

Call the hospital if any of the following occurs:

- Severe pain or swelling not relieved by medication or elevating the leg
- Numbness or “pins and needles” sensation not eliminated by changing positions
- Toes are bluish, reddened, swollen, very hot or very cold
- Inability to move the toes
- Severe skin irritation or rash around cast edges
- Cast becomes broken, cracked, loose, soft or has acquired a bad smell
- If anything gets stuck inside the cast

Contact phone numbers

If you have any questions or concerns about your child, do not hesitate to contact the Alternative Care Module nurse at (514) 412-4400 ext. 23535, from Monday to Friday, between 7:00 a.m. and

6:00 p.m. If you need assistance outside of office hours, contact the Surgical Ward at (514) 4120-4400 ext. 24433 (7C1).

You can also reach the Trauma Program at (514) 412-4400 ext. 23310.

Office hours are from 8:30 a.m. to 4:30 p.m. Monday to Friday. Outside of these hours, leave a message and your call will be returned on the next working day.

Discharge Planning

- The Trauma Coordinator or/and nurse will talk to you about any special needs your child will have (ex: bedpan, wheelchair, harness, homebound teaching, etc) and assist you with the arrangements.
- A home visit by an occupational therapist from your CLSC will also be arranged before you leave the hospital.
 - A follow-up appointment with the Orthopaedic Surgeon will be given to you before discharge.

Cast Removal and post-cast care

- Your child's cast will be removed when the bones have healed. This is usually about 6 weeks following the initial injury. **Please note:** This can vary depending on different factors, such as the age of the child.
- The cast is removed by cutting it down both sides of the body and legs with an electric plaster saw. The saw works by vibrations, therefore it cannot cut the child's skin. However, the saw is large and noisy and your child might be frightened by it, prepare your child prior coming to the hospital to get the cast remove and reassure them that the machine never cuts the skin.
- You can expect that the skin under the cast will be brown, dry and flaky due to the accumulation of dead skin. The skin will be very sensitive and gentle handling is necessary. Do not rub it. The dead skin will gradually come off. After washing it with warm soapy water, apply body lotion daily.
- In older children, there may be an unusual amount of hair on the skin after the cast is removed. This extra hair will fall out after several weeks.

- Young children will learn to walk by going back to earlier developmental stages. They will move around the bed more freely, start to crawl, use furniture to pull themselves up and to move around until they feel safe. Older children will gain confidence slowly. Do not worry; they will gradually return to more normal walking.
- As mentioned before, you will see a physiotherapist at the Orthopaedic clinic. You will be given the necessary guidance and follow-up as required.
- After the cast has been removed, follow your doctor's instructions about your child's return to physical activity.

We hope this pamphlet was helpful and has answered some of your questions. If you still have questions, contact a member of the Trauma Program they will gladly answer them.

Discharge Check List

Equipment needed:

- Bedpan
- Urinal
- Wheelchair
- Car seat / harness

Supplies needed

- Smaller diapers
- Clothing

- Arrangements for homebound teaching

- Transport

Name of my doctor: _____

Name of my Trauma Coordinator: _____

Name of my social worker: _____

Name of my physiotherapist: _____

The Trauma Program prepared this document, in conjunction with the following Departments and Services:
Alternative Care Module, Child Life Specialists, Physiotherapy, Social Work and the Surgical/Trauma units.

Wheel-chair Rental & Special Transport

Action Medic 4856, boul des Sources, D.D.O Tel: 683-8388

Amedco 2127, Bélanger (corner DeLorimier) Tel: 722-8220

- Wheel-chairs for children or adults
- Delivery and pick-up no charge
- With or without footrest
- With reclining back
- 24 hour notice needed

André Viger 6700, St-Denis Tel: 1-800-363-6703 contact: Mario Durant

Arthro-Med 2020, boul. des Laurentides, Laval Tel: (450) 967-2388

BBG 5930, rue Sherbrooke Ouest Tel: 484-4715

- Wheel-chairs for adults only
- No delivery
- With or without footrest

**Centre Orthopédique
St-Eustache** 495, boul. Athur-Sauvé, St-Eustache Tel : (450) 491-1456

Dufort & Lavigne 1227, rue Rachel est Tel: 527-9381

En Mouvement Inc. 7015, Gouin est, boîte postale 18 Tel: 382-8181

Equimed Inc. 2274, rue Bourgogne, Chambly Tel: (450) 894-3891

Expo Medic 1730, boul. des Laurentides, Laval Tel: (450) 975-2299, 1-800-567-2299
www.expomedic.com

Extra-Medical 670, boul. Industriel #2, Mascouche Tel : (450) 474-2776

Hanger	5545, St-Jacques Ouest, Montréal	Tel: 514-489-3433
	3095, aut. Laval Ouest (440), Laval	Tel : 450-687-5520
	3881, boul. St-Jean, D.D.O.	Tel: 514-624-4411
	5345, boul. l'assomption, Suite R-C 55	Tel : 514-254-9433
	3875, rue St-Urbain, Suite 403, Montréal	Tel : 514-842-0078
	5300, chemin de la Côte-des-neiges, Suite 200, Montréal	Tel : 514-340-1124
	950, montée des Pionniers, Suite 310, Lachénie	Tel : 450-470-0970

- Pediatric chairs delivered at home

Jean Coutu In some pharmacies

Loca-Medic Inc. 4590, boul. Henri Bourassa ouest, Ville St-Laurent Tel: 332-4433, 1888-572-4433

Medicus 5050, rue St-Laurent Tel: 276-3691

Medequip 175, Stillview, suite 160 Pointe-Claire Tel: 697-8868

**Orthèses/Prothèses
Terrebonne** 1689 chemin Gascon, Terrebonne Tel: (450) 471-1101

Ortho-Concept 1850, boul. le Corbusier #200, Laval Tel: (450) 973-6700

Orthomedic 345, boul. Chomeday #3, Laval Tel : (450) 682-8455

Orthosport

4102, Ste-Catherine Ouest	Tel: 939-1702
5354, Queen Mary	Tel: 489-7207

- Wheel chairs for adults only
- With footrest

ParaPlus 5625 rue Paré, Montreal Tel: 739-8030 www.para-plus.ca

Pharmacie Chabot Polyclinique Fabreville
380, boul. Curé-Labelle, Laval Tel : (450) 662-7308

Pharmaprix

1500 Ste-Catherine O, coin/corner Guy Tel.: 933-4744 ext: 10
Open: 8:00 – 24:00 everyday

- Wheel-chairs for children with reclining back and leg rest
- Delivered to hospital

Physio ERP 3232, autoroute Laval Ouest, Laval Tel: (450) 687-0780

Quebec Medical de 8800 Montée l'Épiphanie (route 341), L'Assomption

Lanaudière Inc. Tel: (450) 589-2133, 1-800-0883

Slawner Ltd. 5713, Côte-des-Neiges Tel: 731-3378
(Near the Jewish General Hospital)

- *Wheel-chairs for adults only*
- With or without footrest
- Credit card number required for rental

Systèmes Médicaux 1434, rue Michelin, Laval Tel: (450) 629-5514

- *Aides techniques faites sur mesure*

Transport Medical Tel: 766-3342

Wil-Aide Medical 318, rue St-Jacques, Lachine Tel: 363-0856

*07-2001, Rev. 02-2002, 05-2002, 10-2003, 03-2007, 06-2007, 09-2007, 02-2009
DR/PS/AF/SK*

Car Transport for Children in Casts

THE E-Z-ON VEST

Instructions for the installation of the “E-Z-On” Vest.

The E-Z-On vest is used for children weighing between 20 and 100 pounds, who are in a spica type cast and who must be transported lying down.

1. Put the vest on the child, with the ties in the front. Adjust the straps at chest and hip-level, so that the vest is comfortably adjusted.
2. If the shoulder straps cannot be adjusted properly due to a cast, place a rolled towel or other clothing under the shoulder straps to fill in the gap.
3. Lie the child down at the centre of the rear car seat. Place one car seat belt under the chest-strap of the vest, and one car seat belt under the hip-strap of the vest. Adjust the belts properly.
Pull the car seat belts as much as possible.
Place a pillow or rolled towel between the back of the car seat and the child's head.
This will minimise the neck's flexion in case of collision.
Make sure to keep the child's head far from the car's door or side. Place pillows between the car door and the child's head in order to prevent a blow to the head in case of a lateral collision.
4. The vest's leg straps should be used as follows:
 - a) If one of the legs is in a cast, that leg should be the one positioned closest to the back of the car seat. Place the strap around the cast, at knee-level.
Use the same car seat belt as used for the hip-straps.
 - b) If both legs are in a cast, place the strap around both legs, at knee-level, and use the same car seat belt as for the hip-strap.
 - c) If neither leg is in a cast, place the strap around both legs at knee-level.

Do not hesitate to contact the Trauma Program for more information: (514) 412-4400 ext. 23310

Some of the E-Z-On Vests used at the Montreal Children's Hospital have been graciously donated by: TD Bank Canada Trust De La Savane, March 2002