



NATIONWIDE CHILDREN'S
When your child needs a hospital, everything matters.™

Helping Hand™

Health Education for Patients and Families

Mehta Cast for Early Onset Scoliosis

Scoliosis (sko lee OH sis) is an abnormality of the spine. It results in a curve or curves of the spine that you can see when you look at the child's back from directly behind. When it occurs in a child younger than 10 years old, it is called Early Onset Scoliosis.

The goal for treatment of young children with scoliosis is to try to prevent the progression of the condition. Children less than 2 years old, and sometimes a bit older, may be placed into a cast. The cast, called a Mehta (MET-a) Cast, will cover the trunk of the body (Picture 1). The Mehta cast starts around the hips and goes up to the upper chest just under the armpits. There is a hole left open in the abdomen (belly) area to allow space for the belly to expand.

The Mehta cast will need to be replaced as your child grows. It may be changed about every 4 to 8 weeks, depending on your child's age. An estimate for the number of months it will be between cast changes is the age of your child in years. Your child will always be in the cast during the casting period except for when the cast is being changed by the doctor. This process is called "serial Mehta casting." The cast will be changed until there is enough correction in the spinal curve or it is time to switch to a brace.

If serial casting is interrupted, the curve can return and may continue to worsen. Serial casting is a commitment that can sometimes result in resolution of the spinal curvature and help your child avoid surgery.



Mehta Cast

Young children usually do not have social issues with the cast. They just want to enjoy their regular activities and interact with people as they normally do. This is important to keep in mind during their serial casting.

The cast

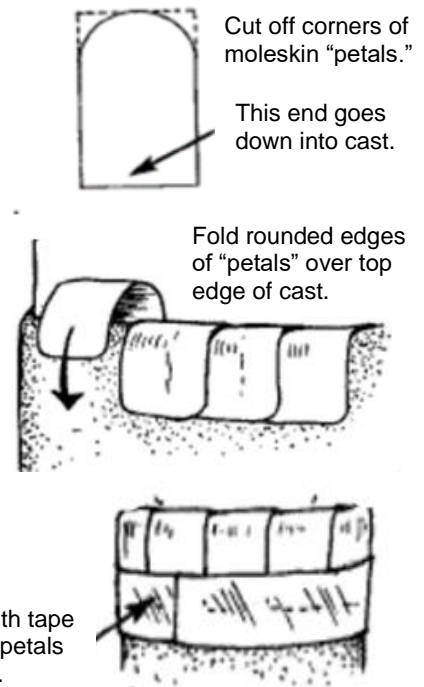
What happens in the hospital

- If your child needs to have a Mehta cast placed, they will be scheduled for outpatient surgery. This is because your child will need general anesthesia in order to have the cast placed correctly.
- This does not usually require an overnight stay.
- The doctor pushes and molds the cast while it is being placed and while it is drying in order to push on the spinal curves to try to reduce the size of the curves.
- The process of anesthesia and cast placement takes about one hour.
- The cast may be either cotton and fiberglass or a synthetic waterproof material and fiberglass. After the cast is placed, the staff in the recovery room will help your child wake up from anesthesia.
- During that time, if the cast is cotton the staff may place “petals” of moleskin and tape around the edges of the cast. Moleskin is a soft, spongy material that has one sticky side. These petals of moleskin are placed to make the edges of the cast softer and to prevent skin breakdown.
- Your child should be able to sit in their car seat for the ride home. No special seat or stroller is needed.

Care at home

- **If your child’s cast is cotton**, the cast should stay clean and dry. Sponge bathe your child only. Do NOT get the cast wet. Replacing the cast requires another scheduled surgery and anesthesia for your child. If it gets soiled, try to wipe out the cast as best you can and replace petals of moleskin as needed.
- **If your child’s cast is waterproof**, please get it wet daily. It is OK to let soapy water get inside the cast. When you are finished, please be sure to rinse off all soap residue. Soap left on the skin under a cast can be irritating to the skin. You may use a hairdryer on the cool setting for several minutes, changing the area where you are blowing frequently, to help dry the skin. Skin left too damp can cause itching and skin irritation. If the cast gets soiled, clean it out with your child’s regular body soap or body wash and rinse with water as much as possible.

- You may write on the cast, but you should use water-based felt tip markers or pens. DO NOT use paint, oil-based materials, or duct tape on the cast. These clog the pores of the cast and do not allow the cast to “breathe.” Duct tape will also clog the cast saw blade. This can cause problems when the cast is removed.
- Do not let your child put anything down in the cast. Make sure they have a shirt or bib on over the cast when eating so that nothing falls in the cast.
- Monitor your child when they are outside so they do not get dirt or rocks in the cast.
- Do not use lotions, cream, or powders on the skin under or right near the cast.
- Moleskin may need to be placed or replaced periodically on parts of the cast to avoid skin breakdown (Picture 2). It may be placed on a waterproof cast but will need to be carefully replaced when the cast gets wet because it is NOT waterproof.
 - To place moleskin on the cast: Cut petals 2 to 3 inches wide and 4 to 5 inches long. Trim corners on one end to make petals.
 - Remove the paper backing on the moleskin and place the square-edged side in the cast. Press the sticky side against the cast and wrap around to the front. Overlap the petals slightly. Be sure the petals are not wrinkled inside the cast (wrinkles can cause sores).
 - When you are finished placing petals, secure them on the front with silk tape.



Picture 2 Place moleskin “petals” around the opening of the cast.

Itching

If your child complains of itching, you may try to:

- Thump or knock gently on the cast.
- Use a hair dryer on a cool setting for 1 to 2 minutes. Blow cool air into the openings of the cast.
- Call your child’s orthopedic practitioner and ask about giving your child Benadryl® or Claritin® to reduce itching.
- Do not put anything down in the cast.

- Keep your child out of direct sunlight. Sunlight makes your child perspire and can cause more itching.
- Do not pull the padding out of the cast.

Food and activity

- A balanced diet for all children is best. Your child may eat smaller, more frequent meals while in the cast as a result of the confined space.
- Be sure your child drinks plenty of fluids to decrease the possibility of constipation.
- No high-risk activities (such as trampolines or climbing) are allowed.

Pressure injuries

Pressure injuries (pressure sores or ulcers) occur when skin is under prolonged pressure from a bony area against another hard surface. Pressure injuries can occur while your child is in the Mehta cast. It is important to be aware of the signs that a pressure injury may be developing:

- Young children, or those who do not communicate well, are more likely to develop pressure injuries. You should watch your child for non-verbal behaviors, like excessive crying, that may mean a change in their condition. Pain that is worse or pain that has developed in a new area under the cast should be reevaluated by a medical practitioner. Other complaints, including burning, tingling or stinging may mean more pressure on an area and should be evaluated.

To avoid pressure injuries

- Have your child change positions when lying down or resting. This will keep pressure off any one area. Long-time pressure in the same place can cause a skin sore.
- Check the skin around the openings of the cast every day. Look for any red, dry, swollen, cracked or bleeding areas.
- If the area is just pink or red, try to have your child change positions and try some moleskin or place new moleskin in that area and recheck in one hour. If the area is cracked, bleeding, or does not improve, call the Orthopedic Office at 614-722-5175.

Follow-up visit

At your child's follow-up visit, the orthopedic provider can talk more about skin care and preventing skin breakdown. There may be additional products that can be used to protect the skin.

Your orthopedic provider will discuss the next cast change. A surgery date for the cast change may be selected at this time. The cast will not be removed until the day of the appointment with Surgery when the new cast will be placed.

When to call the orthopedic office

If any of the following occurs, please call the Nationwide Children's Orthopedic Center at 614-722-5175 Monday to Friday, from 8:00 to 4:30. Evenings, weekends and holidays, call 614-722-2000 and ask to page the orthopedic resident on call.

- Any pressure area or skin break down from the cast that does not go away with a change in position
- Any object falls in the cast and gets stuck
- A foul odor that cannot be explained
- If the cast is getting too tight, broken, or soft
- If the cast is not waterproof and gets wet on the inside
- If there are changes in color or temperature of skin, ability of child to move, or complaints of different "feelings" of the arms or legs
- Pain is increasing or not relieved with distraction, medicine or change in position
- Your child's temperature is:
 - higher than 101 degrees F by mouth;
 - greater than 100.4 degrees F by ear or rectum;
 - more than 99 degrees F axillary (taken in the armpit).