
What is serial casting?

Serial casting is a way to help stretch muscles and joints by placing a series of casts on an arm or a leg. It does not mean your child has a broken bone.

Serial casting may be used to help:

- Improve joint range of motion.
- Restore or improve function.
- Correct deformities.
- Prevent or decreases abnormal tone.
- Decrease pain.
- Increase ease of care.
- Support, position or immobilize (keep from moving) the arm or leg.
- Keep the joint in the right place.

Your child's therapist will put the cast on your child's arm or leg. Each week, they will remove the old cast and then put on a new cast.

- Each new cast stretches a muscle or increases the movement of a joint a little more.
- This is done each week until the muscle is stretched and working as well as possible.

How do I care for my child's cast?

- Let the cast dry completely. **DO NOT** cover it.
 - A fiberglass cast takes about 30 to 45 minutes to dry.
 - A soft cast takes about 10 minutes to dry.
- Use pillows to prop the cast up off hard surfaces that can cause dents.

How do I care for my child's skin?

- Keep the cast dry. Give your child a sponge bath each day.
- Cover casts with plastic bags to keep them dry during sponge baths.
- Do not put any lotions, powders or oils under the cast.
- Keep sand, dirt and water from getting inside the cast.

What do I do about itching?

- Do **NOT** let your child put anything inside the cast. This could hurt the skin and cause infection.
- Gently pat the cast above the area that itches.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

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- Keep your child as cool as possible.
 - Put a well-sealed ice bag on the cast over the area that itches.
 - Use a hairdryer to blow **cool** air under the cast. This may help lessen itching.
- Change your child’s position to shift the weight of the cast.
- If the itching is very bad, ask your child’s doctor about medicine for itching.

How do I check sensation and circulation?

It is important to make sure the cast is not too tight and that blood can flow well to all body parts around the cast.

- Check the skin **every 1 to 2 hours in the first 24 hours** after your child gets a cast put on.
- After 24 hours, check your child’s skin at least every 8 hours every day.
- Follow the steps below to check their skin.

Movement of toes and fingers	<ul style="list-style-type: none"> • Have your child move or wiggle their fingers or toes often.
Sensation (feeling)	<ul style="list-style-type: none"> • Touch the area above and below the cast several times each day. • Call your child’s doctor right away if your child says they have numbness, tingling or pain.
Circulation (blood flow)	<ul style="list-style-type: none"> • Press briefly on your child’s middle fingernail or large toenail several times each day. • When it turns white, let go. • If a pink color does not return in 3 seconds, call your child’s doctor right away.
Temperature	<ul style="list-style-type: none"> • If your child’s hand or foot is cold, cover it with a blanket or sock or raise it above the level of the heart. • Check it again in 20 minutes. If it is still cold, check feeling and blood flow. • If you think there may be a problem, call your child’s doctor right away.
Level of swelling	<ul style="list-style-type: none"> • Look for swelling above and below the cast several times each day. A little swelling is normal, but a lot of swelling is not. • Compare the arm or leg with the cast to the other one. If there is swelling, raise it above the level of the heart for 1 hour. • Watch it closely and call your child’s doctor if the swelling does get better.

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How is the cast removed?

If your child has a *fiberglass* cast:

- **DO NOT** try to remove it yourself.
- Your child's therapist will:
 - Use a vibrating cast cutter to open both sides of the cast from one end to the other. The cast cutter will make a loud buzzing noise like a vacuum cleaner. Your child may feel some pressure or tingling, but it will not hurt or cut your child.
 - Spread the 2 halves of the cast with a metal tool.
 - Use special scissors to cut the cotton lining.

If your child has a *soft* cast:

- For babies, your child's therapist can remove some of the cast material without cutting.
- Your child's therapist will tell you how to take off the cast at home. Be sure to remove the cast the day before your child's next scheduled casting visit.
 - Use your hands to remove the cast material where it ends.
 - Gently unwrap it until you get to the cotton. You may wet it a little if you have trouble.
 - Take off the cotton and sock.
 - Give your child a bath to wipe away the dry skin. You may use lotion but only at bedtime.

What are the risks of serial casting?

Talk with your child's doctor about the risks. Some risks include:

- Pressure sores
- Skin irritation
- Pain
- Muscle atrophy (decrease in muscle tissue)
- Joint stiffness
- Compartment syndrome (pressure in muscles is very high and can affect blood flow to the area)
- Thermal injuries (tissue injury from heat)

When should I call the doctor?

Call your child's doctor for any questions or concerns about how your child looks or feels.

Call your child's doctor **right away** if your child has any of these:

- Pain that does not get better with medicine or pain that is different than before
- Red, irritated or sore skin
- A bad smell coming from the cast
- Any drainage or bleeding on the cast
- Cannot move their fingers or toes

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- Still has any of these problems in the toes or fingers after propping up the cast on pillows for 15 to 20 minutes:
 - Numbness, tingling or decreased movement
 - Swelling
 - A blue or purple color
- Fever over 100.5° F for longer than 24 hours with no other symptoms

Call your child's doctor or therapist if the cast:

- Has cracks or soft spots
- Loosens
- Does not dry all the way
- Has something stuck inside of it

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

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