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## 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. Every 3 to 7 days, 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 until the muscle is stretched and working as well as possible.

## How do I care for my child's cast?

After the cast is put on, let it dry completely. **DO NOT** cover it.

- If your child has a fiberglass cast, it most often takes 30 to 45 minutes to dry.
- If your child has a soft cast, it most often takes about 10 minutes to dry.
- Use pillows to prop the cast off hard surfaces. This helps avoid dents.

Check the skin around and under the edges of the cast each day. The skin should not be dry, red or irritated.

Do not allow any moisture on the cast.

- Only give your child sponge baths.
  - First place a towel or washcloth around the top part of the cast.
  - Cover the entire cast with 2 plastic bags or use “Glad Wrap Press and Seal” for smaller casts.
  - Use a damp – not wet – cloth and mild soap to clean the skin. Dry it with a towel.
  - Please note these methods do not protect a cast at the pool or beach or if the cast goes under water.
- Do not use lotions, oils or powder around the edges or under the cast.

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

## Serial casting, continued

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Call the doctor to schedule a cast change right away if the cast:

- Is saturated (soaked).
- Gets wet more than 1 time.
- Gets dirty.

### What 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.
- Keep your child as cool as possible.
- Use a hairdryer to blow **cool** air under the cast.
- 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 feeling and circulation?

Make sure the cast is not too tight and that blood can flow well around the cast.

- Check the skin **every 1 to 2 hours in the first 24 hours** after your child gets a cast.
- After 24 hours, check your child's skin at least every 8 hours every day.

Be sure to check:

- Movement – have your child move or wiggle their fingers or toes.
- Feeling (sensation) – touch the area above and below the cast to make sure it feels normal to your child.
- Blood flow (circulation) – press briefly on your child's middle fingernail or large toenail. When it turns white, let go. The pink color should return within 3 seconds.
- Temperature – check to make sure their hand or foot is warm. If cold, cover it with a blanket and check again in 20 minutes. Check feeling and blood flow if it is still cold.
- Swelling – look for swelling above and below the cast. 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.

### 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 1 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.

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# Serial casting, continued

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- 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, 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. To remove the cast:

- 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.
- Take your child’s cast off on: \_\_\_\_\_

## 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 the doctor right away if your child has any of these problems.

Movement	<ul style="list-style-type: none"><li>• Decreased or loss of movement in the fingers or toes that does not get better after propping up the cast on pillows for 15 to 20 minutes</li></ul>
Feeling (sensation)	<ul style="list-style-type: none"><li>• Numbness or tingling that does not get better after propping up the cast on pillows for 15 to 20 minutes</li><li>• Pain that is different than before</li><li>• Pain that does not get better with medicine</li></ul>
Blood flow (circulation)	<ul style="list-style-type: none"><li>• Pink color that does not return to nails in 3 seconds after briefly pressing down and letting go</li><li>• Change in skin color below the cast</li></ul>
Temperature	<ul style="list-style-type: none"><li>• Hand or foot that is still cold after covering it</li><li>• Fever (temperature of 100.4 F or higher) for longer than 24 hours with no other symptoms</li></ul>

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## Serial casting, continued

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Swelling	<ul style="list-style-type: none"><li>• Swelling that does not get better after propping up the cast on pillows for 15 to 20 minutes</li></ul>
Skin	<ul style="list-style-type: none"><li>• Red or irritated skin</li><li>• Sores</li><li>• A blue or purple color that does not get better after propping up the cast on pillows for 15 to 20 minutes</li></ul>
Drainage	<ul style="list-style-type: none"><li>• Bad smell coming from inside the cast</li><li>• Drainage on or around the cast</li></ul>
Cast	<ul style="list-style-type: none"><li>• A crack or soft spots in the cast</li><li>• A wet cast that does not dry all the way</li><li>• Something stuck in the cast</li><li>• Cast loosens</li></ul>

**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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