

Pediatric Trigger Thumb

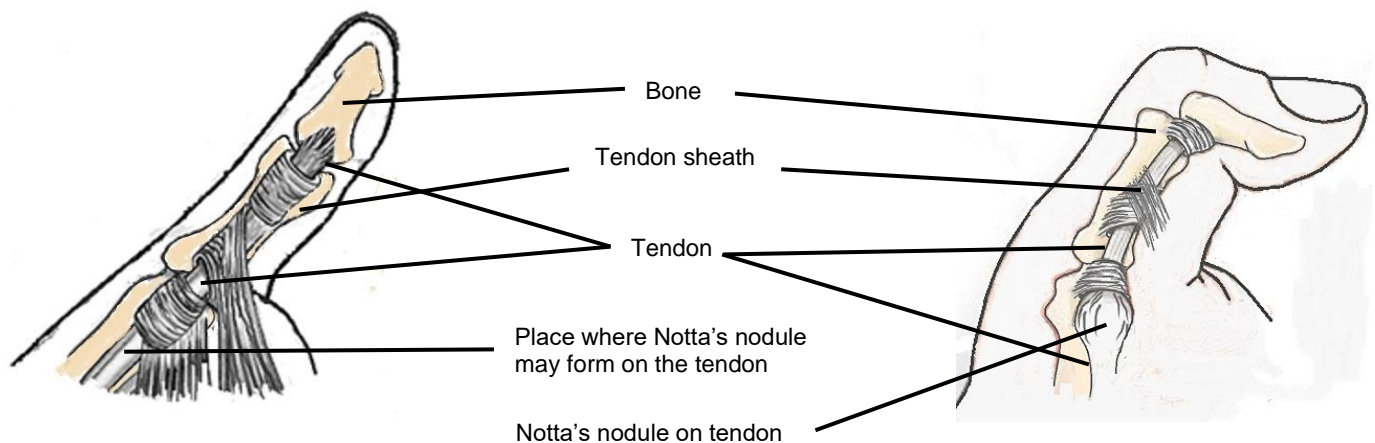
Pediatric trigger thumb (PTT) is a condition that affects how the thumb bends (flexes) and straightens (extends). The thumb:

- Gets stuck or locked in a bent position.
- Can't fully straighten.

The name trigger comes from the clicking feeling when the tendon pops through the tendon sheath at the base of the thumb or triggers between a bent and straight position.

There are tendon sheaths and a tendon in the thumb that work together to bend and straighten the thumb. Tendon sheaths are tunnels that keep the tendon close to the bone and let it slide back and forth easily (Picture 1). With PTT, a tendon can't smoothly slide back and forth through the tendon sheaths. Over time, the tendon swells and thickens.

Sometimes a bump, called a Notta's nodule, forms on the tendon (Picture 2). A Notta's nodule makes it even harder for the tendon to glide through the tendon sheath.



Picture 1 The inside of a normal thumb

Picture 2 Pediatric Trigger Thumb and Notta's nodule

Cause

The cause of PTT is not known. Children are not born with it. It is not caused by trauma, injury, or using the thumb too much.

About 3 in 1,000 children will get PTT between 1 and 3 years old, most often at age 2. Up to 30% of children get PTT in both thumbs.

Diagnosis

Your child's doctor or health care provider will take their medical history and look at their thumb. They will diagnose PTT if they see one or more of the following:

- The thumb is locked in a bent position.
- A bump or nodule (Notta's nodule) at the base of the thumb above palm.
- Popping, clicking, or catching of the thumb when bent or straightened.
- Pain and swelling at the base of the thumb. This is rare.

Treatment

There are 3 ways to treat PTT.

1. Wait and see if it goes away on its own. It may take months or years.
2. Stretch, massage, and splint the thumb. The doctor or health care provider will give you exercises to stretch and massage your child's thumb. After the exercises, your child may need to wear a splint to keep their thumb straight.
 - Your child may need to wear the splint all the time, or just when sleeping.
 - The splint can help the swelling go down.
 - It may press on the Notta's nodule and cause pain.
 - Stretching and splinting will help your child move their thumb better, but they may not get full motion back.
3. Having surgery. If PTT doesn't go away on its own or stretching and splinting doesn't work, then your child may need surgery. A doctor who specializes in hands (orthopedist) will do the surgery at an outpatient surgery center.
 - Your child will get sleep medicine (anesthesia) during the surgery and will not feel any pain.

- The doctor will make a small cut (incision) at the bottom of the thumb where it meets the palm (Picture 3).
- The doctor will cut the tissue closest to the Notta's nodule. This will give the tendon the space it needs to move through the ligament. They will not cut the nodule.
- The skin is closed with dissolvable stitches and covered with a bandage (Picture 4).
- After surgery, your child can start using their thumb right away. They don't have to worry about hurting it.
- Pain is not common after surgery. If needed, you can give your child over-the-counter (OTC) pain medicines like acetaminophen (Tylenol®) or ibuprofen (Advil® or Motrin®). Read the label to know the right dose for them. Do not give aspirin or products that contain aspirin.
- Your child will wear a bandage for 3 days (Picture 4). The bandage must stay dry.
- After you take the bandage off, your child can take baths.
- Cover the stitches with a Band-Aid® until they dissolve and the wound is completely healed.



Picture 3 Small cut or incision at base of thumb



Picture 4 Keep the bandage on for 3 days after surgery.

Follow-up After Surgery

Your child will have a follow-up appointment at the clinic within 2 weeks after surgery.

When to Call the Doctor

Call your child's doctor or health care provider if:

- The bandage gets soiled, wet, or starts falling apart.
- Fingers aren't pink and warm.
- The entire finger is swollen and painful.
- They're crying more than usual or is in pain.
- They have a fever over 101° Fahrenheit (F) or 38.3° Celsius (C) after surgery.