

Nasogastric Feeding Tube Replacement and Verification at Home

A nasogastric feeding tube is a thin, flexible, soft tube that is passed through your child's nose (nostril), down the swallowing tube (esophagus), and into the stomach. It is sometimes called an NG tube or NGT. This *Health Facts for You* will review how to replace your child's NG tube at home. This information is not specific to your child.

Some Reasons Your Child May Need an NG Tube

A feeding tube is used to provide fluids, food, or medicine when a child cannot take them by mouth. Reasons a child may need a nasogastric tube include:

- Problems with sucking, chewing, or swallowing.
- Unable to get enough nutrition with a normal diet.

Securing the NG Tube

The tube needs to be secured to ensure the tube stays in the stomach. It is unsafe if the tube moves out of the stomach. The tube can be secured with medical tape or a clear dressing such as Tegaderm. Your care team will provide instructions on how best to secure the tube.

Confirming NG Tube Placement

An x-ray will be taken to make sure the tube is in the right place. The feeding tube will have a number marking where it exits the nose. This number should **not** move.

Check the number every time you use the tube. If the number moves or the feeding tube falls out, do not use the tube and follow these steps:

1. Remove the tape.
2. Pull the tube all the way out of the nose.

Your Child's Feeding Tube Information

Size of feeding tube: _____

Measurement at nose (cm): _____

Date tube was placed: _____

Date tube is due to be changed: _____

Other instructions: _____

pH paper expiration date: _____

Caring for Your Supplies

- Wash supplies with soap and warm water.
- Rinse well with water and let dry.

Replacing Your Child's NGT

The NG tube should be replaced **every 4 weeks**. If the tube falls out before the routine replacement or it has been 4 weeks since the NGT was placed, replace the tube using the steps listed.

Reusing the NG Tube

The NG tube can be used 2 to 3 times but should not be used for longer than a month. To reuse the NG tube:

1. Wash the tube with warm water and soap, then rinse well.
2. Check the tube for any crack, kinks, or tears by flushing it with a syringe and water.
 - a. If water leaks from any part of the tube other than the bottom, throw the tube away.
3. Reinsert the tube. If the tube feels softer, making it hard to replace, put it in the freezer for 10-15 minutes before replacing it.

How to Replace Your Child's NG Tube

Only replace the NG tube if you have received education from a nurse. been taught how to do it.

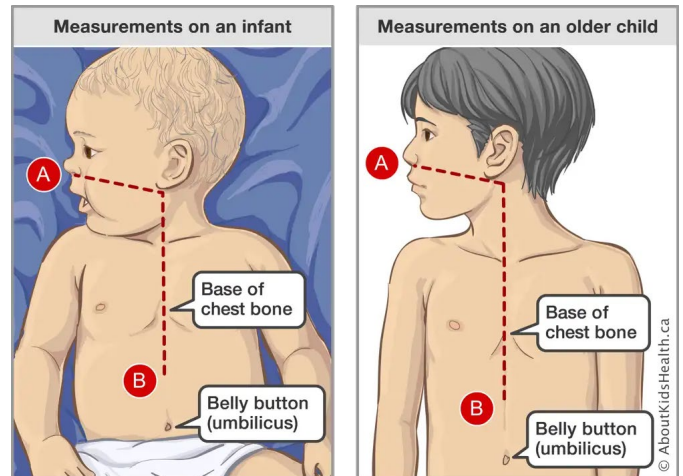
Supplies

Gather your supplies, including:

- Nasogastric tube
- Water-soluble lubricant
- Adhesive skin protectant (Duoderm)
- Tape (Tegaderm or clear tape)
- Sharpie or pen
- pH paper
- 5-10 mL syringe
- Cup of water (for children who can swallow liquids safely)

Getting Ready

1. **Hand hygiene:** Wash your hands with soap and water.
2. **Position your child:** Put your child in the proper position with their head raised. You may need someone to help hold your child during placement of the NGT. If your child is small, you can wrap them in a blanket with their arms secured, ensuring their head is exposed.
3. **Measure the tube length** (see picture on the top right of the page):
 - a. Start with the end of the NG tube at the tip of your child's nose.
 - b. Extend the tube from the tip of the nose to the earlobe (A).
 - c. Then extend the tube from the earlobe to the space between the base of your child's breastbone (where the ribs meet) and the belly button (B).
 - d. Repeat this measurement once more to ensure it is accurate.
 - e. Mark the measured point with a sharpie or pen.



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4. Prepare your supplies:

- a. Cut the tape to the right size.
- b. Place the adhesive skin protection on the cheek on the side of the nose where you will place the NG tube.

5. Lubricate the tube:

Lubricate the tip of the tube with a water-soluble lubricant to make it easier to insert.

6. Insert the tube:

- a. Insert the tube into your child's nostril. Follow the curve of their nasal passage.
- b. Your child may cough or gag while you insert the tube. If this happens, pause and give your child time to swallow.
- c. If your child uses a pacifier, it may help to have them suck on it while you insert the tube. For older children, give them a cup and straw to drink from (if they are allowed to drink fluids by mouth).
- d. **Do not** force the tube. Wait 5-10 seconds and try to push the tube in again. If you feel resistance, pull the tube back and attempt to gently reinsert it. If you still cannot push the tube in easily, call your child's provider.

- e. If the tube becomes coiled in the throat or mouth, pull it back and restart from step 5.
- f. Pass the tube until the mark made during measurement reaches the opening of your child's nose.
- g. Tape the tube to the face. Make sure the mark is right at the insertion point of the nostril.

Unable to Insert

Allow your child to rest and comfort them before trying to replace the tube again.

After Insertion

Monitor for Symptoms

Stop using the tube right away and gently remove it if you notice any of these symptoms:

- Coughing or gagging
- Sneezing
- Vomiting
- Change in skin color
- Noisy breathing
- Shortness of breath or other changes in breathing rate
- Change in child's oxygen needs or decrease in pulse oximeter reading
- Increased restlessness
- New irritability
- Discomfort or abdominal pain
- The tube comes out of the mouth

Check Placement

Check placement with pH paper using the steps listed.

How to Check the Tube Placement

Checking the placement of the NG tube is an important step to complete before using the tube. **Always** check tube placement with pH testing after inserting the tube or when your child has vomited.

If your child receives continuous feeds, stop feeding and wait 15-20 minutes before checking the pH of the stomach contents.

Steps to check placement:

1. **Hand hygiene:** Always wash your hands before and after checking the placement of the tube.
2. **Prepare the pH paper:** Check the expiration date on the pH paper.
3. **Attach syringe and collect stomach contents:**
 - a. Temporarily tape the tube to your child's cheek.
 - b. Attach an empty 5-10 mL syringe to the tube and pull back on the syringe with gentle pressure.
 - c. Once there is a small amount (0.5-1 mL) of stomach contents in the syringe then apply a drop to the pH paper.
4. **Compare pH:**
 - a. Compare the color of the pH paper to the pH color legend.
 - b. If the pH is between 1 and 5.5, you can secure the tube to your child's cheek and start using the tube for feedings or medicine.
 - c. Write down the pH level for your records.
 - d. If the pH is greater than 5.5, **do not use the tube** and refer to the table, "**Problems You May Have.**"
5. **Secure the tube:** When taping the tube, **do not** cover the opening of your child's nose.

6. **Clean the syringe:** Wash the syringe with soap and warm water. Allow it to dry before using it again.

Complications of a Misplaced NGT

It is crucial to ensure the NGT is correctly placed to avoid serious complications. Some of these complications may include:

- **Pneumothorax:** Air leaking out of the lung into the space between your chest wall and your lung.
- **Aspiration:** Food getting into the lungs.
- **Esophageal perforation:** A tear in the swallowing tube.
- **Death:** In severe cases, a misplaced NGT can lead to death.

If you are concerned about the placement, gently remove the tube and replace it, or take your child to a health care provider to have it replaced.

Other Information for Caregivers

Tips

- **Keep area dry:** It is important to keep the area around the NGT clean and dry to prevent any skin sores or infection.
- **Oral care:** Whether your child eats by mouth or not, it is important to clean your child's mouth at least twice daily.
- **Keep an extra tube:** Always have a second tube with your child in case

something happens to the tube that is currently being used.

- **Hospital stays:** If your child is in the hospital, you will notice that the process for checking NG tube placement is different. Per hospital policy, placement for NG tubes need to be verified using an x-ray.

When to Call

Call your child's health care provider **right away** if they have any of these symptoms:

- Fever of 100.4°F or higher
- Vomiting, diarrhea, or constipation
- Increased fussiness or is not able to be consoled
- Pain with eating
- Bloating or distended stomach
- Redness, swelling, leaking, or sores around the tube

For non-urgent questions, send a message through MyChart.

Call 911 or go to the nearest emergency room right away if your child has any of these symptoms:

- Trouble breathing
- Blood around the tube, in their stool, or in their stomach contents
- Coughing, choking, or vomiting while feeding
- Stomach feels hard

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Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 4/2025 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#8415.

Problems You May Have

Problem	Cause(s)	How to Fix the Problem
You were unable to draw back any stomach contents	<ul style="list-style-type: none"> Your child's stomach may be empty. The tube is not in the right spot in your child's stomach. 	<ul style="list-style-type: none"> Flush tube with 2-3 ml of air using a syringe. Try to draw back stomach contents again. If flushing the tube with air does not work, have your child lie on their left side for 10-15 minutes to allow stomach contents to pool near the end of the tube. If you are still unable to draw back any stomach contents after changing your child's position, gently remove the tube and try to replace it again. If you are unable to draw back any stomach contents after replacing the tube, bring your child to the clinic or emergency department to replace the NGT.
You are drawing back formula	<ul style="list-style-type: none"> The tube could be clogged. 	<ul style="list-style-type: none"> Flush with 5 mL of air to clear the NGT. Wait for 15 minutes before trying to draw back stomach contents.
The pH is reading higher than 5.5	<ul style="list-style-type: none"> The tube is not in the correct position. 	<ul style="list-style-type: none"> If your child takes medicines such as Prilosec, Famotidine, or Prevacid, this may lower stomach acid and result in a pH reading higher than 5. Check pH right before giving any of these medicines. Do not use the tube if the pH is higher than 5. Wait for 1 to 2 hours and recheck the pH. If the pH remains higher than 5 after waiting for 1 to 2 hours, call your child's medical provider. An x-ray may be needed to check the placement of the tube.