



## Nasogastric Tube/ NG Tube

### What is an NG tube?

- A nasogastric (NG) tube is a soft, thin tube that goes through your child's nose down to his or her stomach.

### Why does my child have an NG tube?

- If your child is not able to take in enough food or medicine by mouth, he or she can get liquid food and medicine through the NG tube.

### How do I place the NG tube?

1. Gather your supplies. You will need:
  - a. Nasogastric tube
  - b. Lubrication
  - c. Syringe
  - d. Duoderm
  - e. Skin Prep Pad
  - f. Tape
  - g. Marker
  - h. pH paper
2. Measure for placement.
  - a. Place the tip of the feeding tube at the tip of your child's nose.
  - b. Hold the tube in place with one hand and lead the tube to the tip of your child's ear lobe.
  - c. Hold the tube at the ear lobe and measure from the lobe to midway between the base of the chest bone and the bellybutton.
  - d. Note the number on the tube (if the tube has cm markings) and place a mark on the tube at that location with a marker.



3. Insert the tube.

- a. Wash your hands.
- b. Position your child in a comfortable position. Swaddling an infant or small child may help. Having someone else hold your child will also be helpful.
- c. Lubricate the tip of the feeding tube.
- d. Hold your child's face with one hand and gently insert the tube into one nostril with the other hand.
- e. Continue to gently push the tube into the nose until the mark on the tube is at the edge of the nostril.
  - i. Your child may gag or sneeze while the tube is going in.
  - ii. If you cannot get the tube to go in, try the other nostril.
- f. Once the tube is in the nose, hold the tube with one hand and prepare to secure the tube.



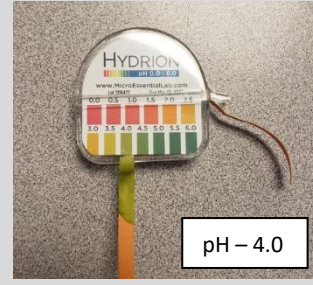
4. Securing the tube

- a. Open a skin prep pad and wipe your child's cheek where you will put duoderm. The skin prep will make the skin sticky.
- b. Place a piece of duoderm on your child's skin where the NG tube will lay and press on it with your fingers.
- c. Lay the NG tube over the duoderm.
- d. Place a piece of tape over the NG tube on the duoderm.
- e. You can replace the tape as needed while still leaving the duoderm on your child's cheek.



\*\* If the tape becomes wet or is no longer sticky—you can retape your child's NG without replacing the tube by holding the tube in place and repeating the above steps.

5. Check the placement on the NG tube to make sure it is in the stomach.
  - a. Take an empty syringe and pull back the plunger to 5mL.
  - b. Find the end of your child's NG tube and pinch or bend the tube to prevent the tube from leaking when you open the port at the end.
  - c. Open the port and attach the air-filled syringe to the NG tube.
  - d. Gently push the air into the NG tube. This will clear the tube of any formula or water which would alter the pH.
  - e. Pull back on the plunger to get a small amount of liquid from your child's stomach.
  - f. Put the liquid from the syringe on a piece of pH paper.
  - g. Compare the color of the wet pH paper to the package which tells you the pH of the liquid on the paper.
    - i. The pH of the liquid should be 1.5-5.5.
    - ii. If the pH is 6 or higher, wait 30 minutes and repeat the pH test.
    - iii. If the pH is still 6 or higher, the tube is not in the stomach and needs to be removed and replaced.
  
6. Troubleshooting
  - a. If unable to pull back liquid from the NG tube, push in another 1-5mL of air. The tube may be up against stomach wall. May repeat 2-3 times as needed.
  - b. If unable to push air into the tube, tube may be kinked or misplaced. The tube should be removed and replaced.
  - c. For small NG tubes, use a larger syringe to decrease the pressure created by the plunger. This may keep the tube from collapsing and make it easier to pull liquid out.
  - d. If still unable to get liquid out of the tube, put your child on his or her left side and wait 10-15 minutes. This may help the tube fall below the fluid level in the stomach. Try to pull back liquid again.
  - e. If still unable to get liquid, do oral care to increase gastric juices. Keep your child on left side for 10-15 minutes to allow for gastric juices to build up in stomach. Try to pull back liquid again.
  - f. If all the above steps don't work but the marking of the tube is still at the entrance of the nose, and your child isn't having any trouble breathing, give the medicine or food. Watch your child while giving the medicine or tube feed for any signs of aspiration (decreased oxygen saturations, coughing, shortness of breath, cyanosis, apnea, bradycardia, suctioning formula from trach).



- You should check placement on your child's NG tube
  - before giving a tube feeding
  - before giving your child medicine
  - if your child appears to be in respiratory distress

### **NOTES:**

\*\*A tube feed will need to be turned off for 15-30 minutes before checking placement to get an accurate pH.

\*\*If you give your child any medicine that decreases acid in the stomach, check pH before giving the medicine. You will then need to wait at least 4 hours before checking gastric pH again.

### **Reasons to pull out the NG tube:**

- if your child has any signs of aspiration
  - decreased oxygen saturations
  - coughing
  - shortness of breath
  - turning blue
  - stopping breathing
  - very low heart rate
  - suctioning formula from the trach
- if the pH of the liquid from the stomach is higher than 5.5 after re-checking 3 times.

## Feeding your child with a feeding pump through the NG tube:

1. Wash hands.
2. Gather supplies.
  - a. Formula –
    - i. Type \_\_\_\_\_
    - ii. Amount \_\_\_\_\_mL
    - iii. To run over \_\_\_\_\_ hours
  - b. Measuring cup
  - c. Feeding bag
  - d. Feeding pump
  - e. 10 mL syringe
  - f. Water for flush - \_\_\_\_\_mL
3. Open feeding bag and pour formula into the bag (the ordered amount of formula plus an additional 20-30 mL of formula to prime the feeding bag's tube)
4. Prime the formula through the tubing by gently pinching the valve in the feeding tubing. If formula is thick or does not flow, you can prime the tubing on the feeding pump.
  - a. To prime on the feeding pump – insert the feeding bag cartridge into the feeding pump. Press and hold the "Prime" button until the formula reaches the tip of the tube.
  - b. Find the end of your child's NG tube and pinch or bend the tube to prevent the tube from leaking when you open the port at the end.
5. Open the port and attach the feeding bag tubing to the NG tube.
6. Set the pump rate and volume to deliver the correct amount of formula over the ordered time. Most feedings are delivered over 1-hour. (*See the supplies section to see your child's ordered amount of formula and the rate to set on the pump*)
7. Press "start" on the pump.



### **When the feeding is over:**

1. Check the pump volume to ensure your child received the correct amount of formula.
2. Turn the pump "off".
3. Draw up your child's specified water flush into a syringe
4. Pinch the tube to prevent the tube from leaking and detach the formula bag tubing from the NG tube.
5. Attach the water filled syringe to the NG tube.
6. Slowly push the water into the NG tube.
7. Pinch the tube to prevent the tube from leaking, detach the syringe, and close the cap on the NG tube.



### **How to remove the NG tube:**

- When your child's doctor allows, you can remove the NG tube at home.
- Gently loosen the tape and duoderm from your child's face.
- Pinch the NG tube and pull it out of your child's nose in one quick motion.
- Clean your child's face with warm water and throw the NG tube in the garbage.