

Caregiver Education Checklist

- ☐ Watch Get Well Network Videos on Nasogastric Tube care
- ☐ Review this handout on Nasogastric Tube care
- ☐ Attend NG-tube class in the Family Resource Center
 - Monday 4pm-6pm (English/Spanish), Thursday 9am-11am (English)
- ☐ Each caregiver demonstrates proficiency with tube placement
 - 3 times on doll
 - 1 time on patient
- ☐ CPR training, optional (unless your medical team decides you need to take it)
- ☐ Complete 48 hours total care of the patient – preferably 24-hours at a time

This is what is taught to caregivers in the Family Resource Center NG-Tube class. Please use this as a guide when teaching at the bedside. Do not print and give to your patients and families.

HANDWASHING/HAND SANITIZER-Most important thing we can do to prevent infection. Teach caregivers to wash their hands (20 second scrub with soap & water, dry with paper towel, turn faucet off with paper towel) before they handle the NG-Tube (cleaning and giving meds/feedings).



What is an NG-tube?

- Naso-nose, Gastric-stomach
- Soft tube that goes from the nose and into the stomach
- Explain reasons why infants & children need a tube:
 - To feed children who are unable or unsafe to take enough food (calories) by mouth
 - Give medication, water
- Used for short periods of time
- Tube is good for 30 days unless damaged



Patient & Family Education

Standardized Teaching Plan: NG-Tube

For Internal/Staff Use Only

- Make sure caregivers know the date it was placed before going home.
- There are different tube sizes, called "French" (Fr.)
 - Size depends on age/size of the child

Supplies needed:

- NG Tube, size _____ French (Fr.)
- Water based gel or lubricant to help the tube slide down the nose easier
- Tegaderm™ or Hypafix™
- Duoderm thin (brown tape)
- Black permanent marker to mark the tube
- Small EnFit™ syringe to check placement
- Cup of water with a straw or a pacifier depending on your child's age

Measuring the tube:

- Follow CHLA Policy 084.0 (make sure parents know the length before discharge): from nose to earlobe to xiphoid process to midline umbilicus

Inserting the tube:

- Wash hands with soap and water.
- Take the NG out of the package, check the tube for any damage
- Leave the wire in place.
- Mark the tube with a permanent marker or pink tape (parents don't usually go home with pink tape).
- Dip tip of the tube in the lube.
- Prepare the Duoderm thin and Hypafix™ prior to placing the tube so it's ready to use once tube is in.
- Swaddle infants snugly & lay them on their back to place the tube (may need additional caregivers at home to place tube)
- For older children, they may sit up 30-40 degrees.
- Cavilon™ is not ordered for home.
- Have older children swallow water (if safe to do so) or infants suck on a pacifier during insertion. This will help the tube go to the correct place.
- Slide the tube into the nose and down the throat until the marking on the tube is reached.
- Normal for child to cry, gag, sneeze or spit up during placement.
Be sure to reassure parents to keep going if they see these behaviors.
- If tube doesn't slide easily or it won't pass, remove and try the other nostril.



Patient & Family Education Standardized Teaching Plan: NG-Tube For Internal/Staff Use Only

- Once tube is in place, pull to remove the guide wire. Save in a Ziplock bag to use again if the tube needs to be replaced.
- Tube is good for 30 days unless damaged.

If the child chokes, has trouble breathing or turns blue, remove the tube right away! After the child calms down, they can try again.

Checking placement:

- **Remind caregivers that they must check to make sure the tube is in the right place EACH TIME they use it!**
- **External markings:**
 - What is the length of the tube after measuring? Be sure to tell parents what the length of the tube is. There is a place in their handout to write it down.
 - Do you see the black mark or pink tape mark just outside the nostril?
 - Do you know what the number outside the nostril is supposed to be?
- **Stomach contents/juices:**
 - Attach the syringe to the end of the NG tube and pull out some stomach juices. If you can pull stomach juices out of the stomach, the tube is in the right place.
 - If you cannot aspirate stomach contents, check external markings. If external marking is in the correct spot, we teach families to:
 - Change the child's position
 - Slowly push in 2-3 ml water and then attempt to aspirate stomach contents.
 - If they still can't aspirate stomach contents, we instruct them to replace the tube.
 - If at any point they don't feel confident about placement, we instruct them to go to the ED for confirmation.
 - Remind caregivers to push any stomach contents they remove back into the child.

For home:

- pH paper is no longer taught to caregivers

Flushing

- Flush with at least 1-2mL before and 2 mL after medications and feedings
- Prime ENFit extension with water before using.
- Flush with 0.5-1mL in between each medication.
- Amount of water is determined by medical team/dietitian
- Tap water ok if safe to drink (Ask medical team if tap water vs. filtered/bottled/sterile water to be used)
- **NJ tubes**: Per policy 084.0, ALL feeding tubes should be flushed every 4 hours when not in use and after each use. NJ tubes are flushed every 4hrs during continuous feedings as well.

Giving Medications:

- All meds **should be** in liquid form, whenever possible.
- Use ENFit™ extension when feeding or giving medication.
- Ask Pharmacist if it is okay to crush the pill or open capsules and mix with water.
- If the medication is a tablet, always crush it into a fine powder and mix in _____ mL of warm water until completely dissolved. We recommend they mix their crushed pill with at least 2 mL of water.
- Never add meds to formula (unless med has to be mixed with formula).
- Check to make sure the tube is in the right place.
- Flush the tube before each medication with _____ mL of water.
- Draw up liquid medication in syringe and give through the NG tube. Repeat if there is more than one medication to give the child.
- If giving more than one medication, flush with **0.5mL - 1mL** of water in between each medication.
- Flush the tube with _____ mL of water after all medications have been given.
- Close the end of the NG tube with attached plastic stopper.

Feeding:

- Wash hands thoroughly for at least 20 seconds, and dry with a paper towel.
- Every child is fed differently: bolus/gravity, intermittent pump, continuous pump.
- Bolus: no faster than 15 minutes, flush before/after with 3ml of water.
- Barrel & plunger-discuss parts.

- When using an extension, clamp tube before pouring in formula in the syringe.
- Pump teaching done by vendor: backpack/portable pump, pump on pole for home, 6-8 hours pump battery life.
- Types of syringes used for feeding: if bolus feeding, we use a 60ml ENFit syringe-it screws on making it easier not to spill feed; all sizes available (smaller syringes needed to give meds).
- Use clamp & gravity to control feeding speed; do not use the plunger.
- The higher the barrel, the faster the feed goes in.
- Slow feeding down if any signs of intolerance.
- Notify MD if vomiting, gagging/retching, increased irritability with feeds.
- Keep infant/child upright during feeding.
- Give pacifier during feeding, involve child during feeding.
- Supplies: 1 extension per week (4 per month)
- Wash extension with soap and water, flick to get extra water out and let air dry in between uses.
- Use brush/toothbrush to clean all the parts on the extension tubing.

What important things do I need to remember?

1. Check to make sure the tube is in the right place before EACH TIME you use the tube.
2. When you place the tube before you go home, save the wire in a plastic bag so if it comes out at home, you can replace the same tube.
3. Use EnFit™ extension when feeding or giving medication.
4. Flush the tube with 2-3 mL of water before and 3 mL after giving feedings or medication.
5. Flush the tube with 0.5-1 mL of water in between each medicine.
6. Keep end of tube closed between uses so the stomach juices do not leak out.
7. The NG tube is good for 30 days. If you need to replace the tube and it is before 30 days, you can use the same tube. After 30 days, use a brand-new tube.
8. Clean your supplies (syringes, etc) in between use with soap & water.
9. Practice good oral care (brush teeth, rinse mouth) twice a day.
10. When you change the NG tube or put it in again, use the other nostril.

Common Problems (Refer to table in back of NG-tube handout):

- Tube comes out
- Incorrect placement/tube in too far
- Tube is clogged

- Problems that may not be related to the tube such as:
 - Nausea
 - Vomiting
 - Diarrhea
 - Choking

1. Tube comes out:

Why it happens or what you see:

- Tube is pulled out by accident
- Tegaderm™ or Hypafix™ is too loose on face
- Coughing or vomiting can cause tube to come out of the nose or mouth

What to do:

- Do not panic!
- Clean the NG-Tube. Wipe it clean, using a syringe flush tube with warm water; insert the wire into the tube, and replace as instructed.
- Only use the guide wire to replace the tube after the tube has been completely removed from your child.
- If you don't know how to replace the tube, take your child to the Emergency Department.

2. Incorrect Placement:

Why it happens or what you see:

TUBE IN TOO FAR:

- Can't see the number markings on the outside of the tube
- Vomiting or discomfort with feeds

TUBE NOT IN FAR ENOUGH:

- Number markings are not visible at the edge of the nose
- Coughing or choking with feeds
- Vomiting or discomfort with feeds

What to do:

- Pull back the tube to the correct length and re-tape or replace the tube.
- If the tube does not easily slide out when you pull tube back, **STOP** and call the medical team.

- Check to make sure you can see the marked area on the outside of the tube.

3. Unable to aspirate stomach content

If you cannot pull back juices from the stomach, you should:

- Check the external markings to make sure it's in the right place.
- Change your child's position
- Slowly push 2-3mls water into the tube and then try and pull back on the syringe again.
- If you still can't get anything from the stomach, replace the tube.

4. Tube is Clogged:

Why it happens or what you see:

- Formula is too thick
- Tablets or powder medication is not crushed or mixed well
- Not flushing often enough

What to do:

- Use the push-pull method using a syringe and lukewarm water.
- If unable to flush the tube, remove the tube and replace the tube, if supplies available.
- Never put any object into the tube to unclog it.
- If unable to unclog the tube, call the medical team.
- Disconnect the extension and rinse.
- You cannot place the guide wire back in to unclog the tube while it's inserted in the nose!

5. Problems that may not be related to the tube:

Problems: Nausea, cramping, distention, vomiting, choking, diarrhea

Why it happens or what you see:

- Rate of the feed is too fast
- Formula is too cold
- Formula is expired or spoiled
- Child is lying flat
- Child has a full stomach
- Constipation

- Other medical problem

What to do:

- Formula should be at room temperature, not too cold or too warm.
- Slow the rate of the feed. Allow at least 15-20 minutes for each feed, or as ordered by your doctor.
- Always wash your hands before setting up feeds. Have caregiver change the feeding bag as they were taught.
- Rinse the tubing with warm water after each feed.
- At the end of each day, rinse the bag and tubing with soap and water.
- Check expiration date of formula. Store any open formula in the refrigerator and throw away after 24 hours.
- Have the child sit up with feeds or elevate the head of the bed with pillows during the feed.

When to call the doctor?

- If the NG Tube comes out and you are not able to replace it.
- If your child is choking with feedings.
- If your child throws up more than 2 times in 24 hours.
- If your child throws up anything other than formula.
- If your child's belly is bloated or distended more than usual.
- If you have any other concerns, such as a fever, call your pediatrician.

Who do they call?

☐ NG-TUBE FOR HOME PROGRAM: (parents should sign this before D/C)

- For any questions or concerns related to the tube, feeding, or difficulty obtaining supplies:
 - Monday to Friday (8:00am-4:00pm), call Pediatric Surgery Linda Camacho NP (323)361-2322 or email Lcamacho@chla.usc.edu
 - After 4pm and on weekends, call (323) 660-2450 and ask for on-call Pediatric Surgery
 - Call 911 if your child is having trouble breathing.
 - You will be expected to follow-up in the NG clinic every 1-2 weeks after discharge and will be seen by a nurse practitioner, registered dietitian, and a dysphagia therapist.
 - If the tube comes out, you are expected to replace the tube and call the clinic.

I understand the above instructions and agree to follow-up in the NG Clinic.

X _____ Date: _____

☐ CARDIOLOGY PATIENTS:

For patient with CHLA cardiologist

- Do not change the patient's diet or discontinue the NG tube without discussing with dietitian or nurse
- For feeding intolerance and questions regarding formula, patient's diet, or if you are having trouble getting supplies: Call dietitian Stephanie Sanborn, RD at 323-361-6044
- For questions about problem solving the NG tube or feeding intolerance: Call CT Surgery nurse care manager at (323) 361-5883
- If unable to reach dietitian or nurse care manager during business hours, call primary cardiologist's office at (323) 361-2461
- After hours, weekends, and holidays, call (323) 660-2450 and ask for the cardiologist on-call or bring patient to CHLA Emergency Department

For patient with outside cardiologist

- Do not change the patient's diet or discontinue the NG tube without talking to your dietitian or nurse



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- If unable to reach dietitian or nurse care manager during business hours, call primary cardiologist's office
- After hours, weekends, and holidays, bring patient to CHLA Emergency Department

☐ OTHER FOLLOW-UP

If you are having trouble with the NG-Tube:

- Please call your primary team (or team taking care of the tube):

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- After 4pm during the week, on weekends, and on holidays, bring your child to the CHLA Emergency Department

If you are more than 1 hour away from the hospital, go to the nearest Emergency Department and ask them for help to replace the tube.

**Linda Camacho, Peds Surgery NP is a great resource for your NG tube.
Email her if you have questions lcamacho@chla.usc.edu**

**Feel free to contact the nurses in the Family Resource Center
for any questions or concerns (x17698):**

Yaritza Arevalo Aparicio, RN (yaparicio@chla.usc.edu)

Yadira Hernandez, RN (yahernandez@chla.usc.edu)

Erin Schmidt, RN (erschmidt@chla.usc.edu)