Appendicostomy

What is an appendicostomy?
An **appendicostomy** [ah-pen-deh-KOSS-tuh-mee] is a surgery where the appendix is attached to the skin of the belly button, or wall of the abdomen (belly), to make an opening to the outside. A tube is placed in the new opening so your child can receive an enema to help empty their colon. Appendicostomy is sometimes called a **Malone procedure** or **antegrade colonic enema (ACE)**.

Why does my child need it?
Your child may need an appendicostomy if they have medical problems that cause bowel control issues, including:

- Anorectal malformation (a birth defect in which poop can’t pass through normal channels)
- Hirschsprung’s disease (a birth defect in which nerve cells are missing in the bowel)
- Medically refractory constipation (can’t pass poop without laxatives or other help)
- Spinal cord problems (tethered cord or spina bifida)

These medical problems can cause fecal incontinence (leaking poop) or constipation. Many children with these problems have bowel management programs to help them stay clean. If your child needs an enema every day to prevent constipation or poop accidents, they may prefer an appendicostomy as they get older. Children can give themselves enemas through the tube, which allows them privacy and independence.

What happens during appendicostomy surgery?
During the surgery, the surgeon makes a small cut in the skin and wall of the abdomen (belly). Then, they connect the colon to the outside of the body using the appendix. The new opening is either at the belly button or lower right side of the belly.

The surgeon makes a small valve that allows the enema tube to go in and prevents leaks when the tube is out.

If your child does not have an appendix, the surgeon can make a new one by forming a piece of colon tissue into a tube. This is called a **neo-appendicostomy** [Nee-oh-ah-pend-ih-KOSS-toh-mee].
**What happens after appendicostomy surgery?**

After surgery, your child will stay in the hospital for 1 to 2 days. They can get up, move around, and eat soon afterward.

The surgery team will place a tube through the opening to give your child an enema before they go home. Your child’s care team will teach you how to care for the new appendicostomy and how to do enemas through the tube. When the tube is out, no one except your child, family, and the surgeon will know the hole is there.

Schedule your child's follow-up appointment with the surgeon for a few weeks after surgery.

**What if I can’t get the tube into the opening?**

Place a warm, damp washcloth over the opening for a few minutes. Then, try again. If you still can’t put the tube in, call the surgeon’s office. The hole may be getting smaller.

**What is the pink, bumpy tissue around the opening?**

The pink or red bumpy tissue around the opening is called granulation [gran-yoo-LAY-shun] tissue and will not hurt your child.

**How do I give an enema through the appendicostomy?**

**Gather your supplies**

You will need:
- Normal saline solution
- Any additives your child’s healthcare provider ordered (glycerin or castile soap)
- Enema bag (Kangaroo™ gravity feeding bag)
- 8-Fr catheter or Chait Trapdoor™ connecting tube
- 10 mL slip-tip syringe to clean the catheter
- Lubricant

**Prepare the solution**

1. Mix 4 cups of warm tap water with 1½ teaspoons of table salt. **Never use plain water or change the recipe.** This could hurt your child. You can also buy a bottle from a pharmacy (called normal saline or 0.9% sodium chloride solution).

2. Warm the saline to body temperature by using warm tap water in the mixture or putting the saline bottle in a hot water bath. **Never microwave saline.**

**How do I care for my child’s opening and tube?**

**Immediately after surgery**

- Keep the area around the enema tube clean and dry. It is normal to have some leaking around the tube.
- Use medical tape to keep the tube in place on the belly.

**Long term**

- Put the enema tube through the opening at least once a day, even if your child does not need an enema. This will keep the hole from closing up.
- Be sure to replace the enema tube at least once a month. Don’t use the tube if it is cracked or splintered.

**What can I expect when my child goes home?**

Your child should avoid vigorous play or sports until they see the surgeon again. They can join in all other normal activities, including swimming, after the temporary tube is removed and the surgeon says it is okay.

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Give the enema

3 Clamp the enema bag tubing.

4 Pour saline (only the amount prescribed) and any additives into the bag. Mix it well.

5 Squeeze the drip chamber in the tubing until it’s halfway filled with fluid. Then, open the clamp. Let the fluid flow out of the bag and through the tubing until it drips out of the end. Re-clamp the tubing.

6 Have your child sit or lie down in a comfortable position.

7 Lubricate the tube well and put it into the opening. Push it in gently, about 4 to 6 inches. Connect the enema bag tubing to the catheter.

8 Open the clamp on the tubing and allow the enema to flow in over 15 to 20 minutes. To slow the enema, use the clamp on the tubing or lower the bag a little to decrease the gravity flow. If the enema leaks, push the tube in further.

9 Have your child sit on the toilet. It may take up to 45 minutes for them to poop.

10 When the enema is finished, rinse the bag with water and flush the tube with soapy water using the syringe.

Notes

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Should I consider getting my child a permanent tube?

Some children want a permanent tube in their appendicostomy or need a tube to keep it open after a stricture. There are two types of permanent tubes: a Chait tube or Chait trapdoor, and a miniACE button.

The end of the Chait tube stays in the appendix and colon and fits neatly against the skin. It has a flapped hinge that opens so your child can receive an enema.

The miniACE looks similar to a gastrostomy tube. The end of the miniACE button has a balloon that stays in the colon. This helps keeps it in place.

You won’t see a bulge under clothing or a swimsuit if your child has one of the permanent tubes. They can also do normal activities, including swimming. Ask your child’s surgeon if a permanent tube would be best.

What if the permanent tube comes out?

If the Chait or miniACE tube comes out, the appendicostomy may bleed a little or leak stool. Put a bandage over the opening. Call the surgeon’s office or take your child to the emergency room. The tube needs to be replaced as soon as possible.

How often do I need to replace the permanent tube?

Your child’s Chait tube should be replaced in the hospital’s x-ray department at least once a year, unless there is a problem. The miniACE tube should be replaced at least once every 6 months. Replacing the tube does not take long, and your child does not have to be admitted to the hospital.