Antegrade Continence Enema (ACE) Surgery

What is the ACE surgery?

The ACE surgery is a procedure to make a small opening in or near your child’s belly button to receive liquid laxatives. The opening goes from outside the skin to inside their bowel. There are two common types of ACE surgery:

- Appendicostomy: This is also called a Malone procedure (MACE). For this procedure, the surgeon connects the appendix to the belly button (umbilicus) or right corner of the belly (abdomen). A one-way valve is surgically created using your child’s own tissue inside their body. This lets the enema tube or catheter get inserted for flushes (irrigations) but no stool or body fluids will be able to come out. The valve is hidden on the inside.

- Cecostomy: This uses a small plastic tube, called a port, to make an opening that can also be cleaned out (flushed). Where the tube comes out of the body, it is level with the skin. This is called a button device.

The liquid laxatives are given by placing a thin tube (catheter) into the opening of the ACE or through a connection tube or large syringe that goes directly into the ACE.

What are the benefits?

The ACE surgery helps with constipation and makes your child’s bowel movements planned and regular. The opening may be placed either in the folds of the belly button or on the lower right side of the belly. This makes it easy to reach because it is right on top of the skin. There is no need to take off your child’s clothes. Your child can still play and participate in activities, like swimming.

What can I expect after the ACE surgery?

Appendicostomy

The doctor will insert a small tube, or catheter, at the time of surgery, which will stay in your child’s belly. The tube will go through the appendix into the bowels. Enemas will be flushed through this tube. The tube will stay in place for one month, and then will be removed in the clinic. You will then learn how to place a catheter just for daily irrigations.

For the first week after surgery, you or your child will need to flush the appendicostomy with 10 to 20 milliliters of normal saline (salt water). After one week, you may start using this to give enemas.

Cecostomy

For the first week after surgery, you will flush the tube with 10 to 20 milliliters of normal saline. After one week, you may start using this to give enemas.
How do I give my child an enema?

Gather supplies

- Enema bag and tubing (for large volume flushes) or 60cc large tip syringe (for low volume flushes)
- 16” hydrophilic catheter
- Enema solution (follow the instructions from your child’s doctor)
- Timer
- Games, books, or other activity to help your child pass the time
- 2 cleansing wipes or slightly soapy washcloth

Giving the enema for large volume flushes

1. Wash your hands.
2. Open and prepare the catheter.
3. Close the clamp on the enema bag.
4. Fill the gravity bag with normal saline (water and salt) and additives as prescribed.
5. Remove air from the tubing by opening the clamp and letting fluid run. Close the clamp.
6. Hang the bag on a shower curtain rod or wall hook.
7. Your child should be seated on the toilet.
8. Wipe the stoma off with a cleansing wipe.
9. Place the catheter in the belly button opening, about 3 to 4 inches (for appendicostomy), or insert the connection tube (for cecostomy).
10. Open the clamp, and allow the solution to run in, over 15 to 20 minutes. If your child has clamps, slow down the flow by adjusting the clamp.
11. Once the liquid laxatives are in, remove the gravity bag and connection tubing from either the belly button, or the button device.
12. Wipe the ACE or cecostomy opening with a cleansing wipe.
13. Rinse gravity bags and connection tubing or the irrigation syringe with soap and warm water. Let it air dry before storing.
14. Throw the hydrophilic catheter away (they are single use only).
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To Learn More
- Urology 206-987-2509
- Reconstructive Pelvic Medicine 206-987-1240
- Surgery 206-987-2794
- Ask your child’s healthcare provider
- www.seattlechildrens.org

Giving the enema for low volume flushes
15. Wash your hands.
16. Fill the syringe with the irrigation solution.
17. Wipe the stoma off with a cleansing wipe.
18. Place the catheter in the belly button opening, about 3 to 4 inches (for appendicostomy), or insert the connection tube (for cecostomy).
19. Attach the syringe.
20. Instill the solution over 30 to 60 seconds.
21. Remove the catheter and syringe.
22. Your child will usually have a bowel movement within about 30 to 60 minutes.
23. Wipe the ACE or cecostomy opening with a cleansing wipe.
24. Rinse gravity bags and connection tubing or the irrigation syringe with soap and warm water. Let it air dry before storing.
25. Throw the hydrophilic catheter away (they are single use only).

Free Interpreter Services
- In the hospital, ask your child’s nurse.
- From outside the hospital, call the toll-free Family Interpreting Line 1-866-583-1527. Tell the interpreter the name or extension you need.

Seattle Children’s offers interpreter services for Deaf, hard of hearing or non-English speaking patients, family members and legal representatives free of charge. Seattle Children’s will make this information available in alternate formats upon request. Call the Family Resource Center at 206-987-2201.

This handout has been reviewed by clinical staff at Seattle Children’s. However, your child’s needs are unique. Before you act or rely upon this information, please talk with your child’s healthcare provider.

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