Cecostomy Placement and Antegrade Enemas

What is a cecostomy?
The cecum is part of the large intestine. It is found at the end of the small intestine. A cecostomy is a surgery that makes an opening in the cecum. The opening is used to give an antegrade enema.

An antegrade enema (or “forward enema) helps empty stool from the colon. It empties from the top part of the large intestine down to the rectum. When an antegrade enema is given every one to two days, most bowel accidents can be avoided.

Why is this type of enema needed?
A typical enema may not work since the enema may leak out as quickly as it goes in.

Antegrade enemas are often used for children with nerve damaged (neurogenic) bowels, such as those with spina bifida or colon dysmotility.

How does a normal digestive system work?
Digestion starts in the mouth.

1. After food is chewed and swallowed, it moves into a hollow tube called the esophagus. This tube connects the mouth to the stomach.
2. The stomach mixes the food with digestive juices. The stomach stores the food for a short time before it is pushed into the small intestine.
3. The small intestine is a hollow tube of muscle. It breaks down food (digests) until it is liquid. This liquid then passes into the large intestine (colon).
4. Water and nutrients from the liquid are absorbed into the body. The leftover waste product becomes stool. It takes 1 to 3 days for stool to pass through the large intestine.
5. The stool then enters the rectum. The rectum is a storage area for stool, just like the bladder stores urine. When the rectum is full of stool, nerves send a signal to the brain to say it is time to have a bowel movement.
6. When it is time to have a bowel movement, a muscle at the end of the anal canal, called the external anal sphincter, relaxes so the stool can pass out of the body.
What happens in children with neurogenic bowels?

- The food may pass through the digestive system slower than normal. The longer food stays in the large intestine, the more water it will absorb. This will make the stool hard.
- The nerves in the rectum may not be able to tell the brain when stool is present. This means the child can’t tell when it’s time to make a bowel movement.

Why won’t a regular enema work?
A typical enema empties as much of the bowel as possible from the rectum. This is called retrograde. This method normally only empties the stool that is in the rectum. Stool that is higher up in the colon often moves into the rectum long before it is time for the next enema.

How do I prepare my child for surgery?

- Your child will be admitted to the hospital one or two days before the procedure.
- A thorough bowel cleaning is done. This may include the use of an NG (nasogastric) tube to give cleansing fluids. Your child may also be given an enema or suppositories.
- Intravenous (IV) fluids are given to keep your child from getting dehydrated. Antibiotics will be given by IV to help reduce the risk of infection.
- Your child cannot have anything to eat or drink for several hours before the procedure. The doctor or nurse will talk more about this.

How is a cecostomy created?

There are several ways to create a cecostomy. Two of the ways are explained below.

**Percutaneous cecostomy**

A cecostomy tube may be placed in the imaging department or in the operating room. Your child may get a medicine to help them sleep through the procedure.

1. A tube that looks like a catheter/button will be put in the cecum. Once the tract is healed, the catheter/button can be changed.
2. To give the enema, extension tubing is attached to the button.
3. An enema administration bag is attached to the extension tubing.
ACE (Antegrade Continence Enema) Cecostomy

The appendix is normally used to make a tunnel from the cecum to the skin surface. This tunnel is made for a tube that will go into the bowel. Stool will not leak out. Once your child heals, there will not be a tube in the opening.

1. To give the enema, a catheter is put through the tunnel until it is in the colon.
2. An enema administration bag is attached to this tube.

What happens after surgery?

<table>
<thead>
<tr>
<th>Percutaneous (through the skin)</th>
<th>ACE</th>
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<tbody>
<tr>
<td>Your child will be in the hospital for 1 to 3 days.</td>
<td>Your child will be in the hospital for 5 to 7 days.</td>
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<tr>
<td>Your child should be able to eat and drink within 4 hours of the placement.</td>
<td>It may be several days before your child can eat.</td>
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<tr>
<td>Healing will take about 1 to 2 weeks after the tube is placed.</td>
<td>Healing will take about 2 to 4 weeks after the tube is placed.</td>
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- Your child will have some pain. Medicines will be used to help with the pain.
- Antegrade enemas can be started after healing is complete.
- Your doctor or nurse will tell you how to care for the cecostomy.

What are possible complications?

Complications are rare, but may include infection in one of 3 areas:
- From the stool leaking into the abdomen in children with VP shunts.
- The skin around the stoma site.
- The lining of the inside of the abdomen (peritonitis).

With the percutaneous method:
- The tube might fall out or break.
- Scar tissue or granulation tissue may grow around the opening.

If your child has a tube, it needs to be changed every few months. A parent or home nurse can do this. This is normally not painful for your child. It normally takes less than 5 minutes to change the tube.

With the surgical method (ACE):
- The opening may start to close and need more surgery to open the hole.

What happens after healing is complete?
- Your child can bathe and swim.
- Special care must be given for children who wear waist or chest level braces. The cecostomy opening cannot interfere with the child’s ability to wear the brace.
After healing (continued)

- Each child is different. You will need to work with your child, using instructions from the doctor/clinic, to find the bowel program that works best. **This may take weeks or even months.**

**How do I prepare the enema solution?**

Your child’s doctor will order the amount of solution to be used.

1. To make the saline: Put 2 teaspoons of table salt into 500ml (about 2 cups) of warm tap water. Mix well.
2. Warm the solution to help lessen the time it takes for the colon to empty.
3. Put the solution into the bag provided by the hospital/home care agency. Make sure it is clamped off, so the liquid does not come out while preparing the equipment.
4. Hang the bag about 6 feet from the floor. You may need to bend a coat hanger to hang the bag on a shower rod or hook.
5. Unclamp the tubing. Let the solution run through the tubing to get the air out.
6. Re-clamp.

**How do I give the enema?**

An enema administration bag is used to give an antegrade enema. Follow these steps:

1. Have your child sit on the toilet.
2. Unplug the cecostomy tube and attach the enema tubing to that tube.
3. Unclamp the tubing and let the solution flow in at a fairly fast rate. It should take about 15 to 20 minutes to flow in.
4. If your child has pain or cramping, slow the rate.
5. When all the solution has gone in, push a small amount of air into the tube to clear it. Clamp the tube, disconnect and replug the catheter end.
6. Your child should use good toilet positioning (legs spread in a “V” position with feet flat on small stool or floor) and stay on the toilet until no more solution is passing. This may take 30 to 60 minutes.
7. Rubbing the belly area while sitting often helps the bowels to move.
8. Sitting for a long time on the toilet can put pressure on the skin. It is ok for your child to stand up to relieve this pressure if needed. If your child cannot stand, have them shift their weight by leaning from one side to the other for a few minutes.
9. Your child’s doctor will tell you how often to give an enema. Do this around the same time each day. It is best to give the enema after the largest meal of the day has been eaten. This will help establish a routine and a regular time for a bowel movement.
10. Ask the doctor if your child should take a stool softener or fiber supplement. Your child should drink plenty of water and follow a diet that is high in fiber.

**ALERT:** Call your child’s doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

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*This teaching sheet is meant to help you care for your child. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment, and follow-up.*