ANTEGRADE CONTINENCE ENEMA (ACE)

Patient Information

Child Health Service, Ward 21

Canterbury District Health Board
Te Poari Hauora o Waitaha
What is an ACE?
An ACE is an antegrade continent enema which is delivered directly into the colon. This is by means of an appendicostomy tube performed surgically or in some instances delivered directly through a catheter into the colon. In our setting we prefer to use the appendix stoma brought out to the anterior abdominal wall laparoscopically.

Who has an ACE?
The ACE procedure is aimed at managing faecal incontinence and long standing constipation. This procedure is particularly useful in patients with poor anorectal mechanisms, e.g. spina bifida. It is also useful for children who have had operations for conditions that have resulted in faecal incontinence, e.g. imperforate anus, Hirschsprung’s Disease. There are a significant number of children who have no medical conditions to account for constipation and/or incontinence who benefit from having an ACE in place.

Why do I need an ACE?
1. Longstanding constipation or incontinence where conventional medication has been unsuccessful.
2. Poor response to dietary changes, toilet training and laxatives.
3. Repeated enemas or nasogastric washouts required with an adverse effect on quality of life.
4. Poor anorectal sphincter mechanisms, e.g. spina bifida.

Prior to an ACE procedure
People you may need to see:
1. General Practitioner (GP)
2. Paediatrician
3. Paediatric Surgeon
4. Dietitian
5. Continence Advisors

Things to consider before surgery
Be well aware of the commitment it takes to making this surgery a success.

The aim of training the bowel is to irrigate the bowel regularly at a similar time of day therefore, toilet facilities must be available for irrigations.

Generally children from 10 years of age are able to manage their irrigations independently, with adult encouragement and supervision only.

A dietary consultation before decision making is often very helpful and is recommended.

Formation and appearance of the stoma
No bowel preparation is required before the surgery takes place.

Where possible, the surgery is done via a laparoscope (key hole surgery).

The end of the appendix is brought through the wall of the abdomen on the right side just a little lower than the umbilicus (tummy button) area. The tip of the appendix is then stitched to the skin. This makes a small opening (commonly called a stoma). The stoma is very small, about 2-5mm in diameter. It will look pink-red, and be slightly moist. You will not feel the stoma, as there are no nerve endings in the appendix.

The stoma acts as a porthole through which you will be able to irrigate the bowel. If there is no appendix, another part of the bowel is used.

A soft tube (catheter) is inserted into the opening and remains in place for 3-5 weeks after the operation. The catheter is kept in place by a small inflated balloon on the inside that you cannot feel.

Initially a 20mL flush of warm tap water is used to keep the catheter patent. This usually happens the morning after surgery. A large irrigation (350-500mL saline solution) is performed on a daily basis whilst the catheter is in place. (Children only – for every 500mL of water, 2 teaspoons of salt is added). This volume of water stimulates the bowel to move and washes the bowel actions out.
The stoma acts as a one way valve and usually there is no leakage coming back from the bowel and infection is minimised. There is no risk of water from the bath, shower or swimming pools getting into the opening.

There is no restriction on activities, including sporting activities.

### Establishing the flushing regime

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Flush 350mL saline via the catheter 24 hours after surgery. This usually takes place in the afternoon. Should you not have a bowel motion, move to Step 2.</th>
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<tbody>
<tr>
<td>Step 2</td>
<td>Flush 500mL saline via the catheter as above. This can be done the following day in the morning. If still no bowel motion, proceed to Step 3 in the afternoon.</td>
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<tr>
<td>Step 3</td>
<td>Syringe fleet (as prescribed by doctor) into the catheter, wait for 10 minutes then flush 500mL saline through catheter. This step may be repeated at your doctor’s discretion.</td>
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Your specialist will arrange an outpatient appointment to take the catheter out. This will not be painful and usually takes place 3-5 weeks after insertion. At this time you will be shown how to introduce the in/out catheter by your Continence Advisor. She will teach you how to confidently insert this into the stoma. Once a bowel pattern has been established, the majority of people switch to an “every other day” irrigation.

Once the catheter is removed, the smaller flush is no longer required.

### Some common questions and answers:

**Q** What happens if my catheter falls out before the doctor removes it?

**A** Children: If this happens between 8:00am-4:00pm, contact Paediatric Outpatient Department (POPD), telephone 364 0640, ext. 80732. If after these hours, contact Children’s Acute Assessment Unit, telephone 364 0640, ext. 80428 or the Emergency Department, Christchurch Hospital.

**Note:** Telephone first – do not just appear.

In most circumstances, the catheter will be replaced.

**Q** Will it hurt to put in the catheter?

**A** No – the bowel does not have any nerve endings. A little lubricant (water or KY Jelly) on the catheter will help make the insertion easier.

**Q** What happens if I can not get the in/out catheter in?

**A** Ensure you/your child is relaxed. Check to see that the catheter is well lubricated. Gently repeat the attempt at insertion. If still unable to insert the catheter, contact your Continence Advisor. You may need a smaller size catheter.

**After Hours:** report to the hospital as above.

If the stoma crusts over, contact your Continence Advisor, and you may be issued with a small dilator to prevent this happening.

**Q** How long does it take to do the flush?

**A** Generally it will take 40-50 minutes from start to finish, but it can take longer (or shorter).

**Q** How much water do I use?

**A** Warm tap water is used and the amount can vary from person to person. It is usually between 300-500mL for a child and up to 1000mL for an adult.

**Q** Do I need to add salt to the water?

**A** Children under the age of 16 need 2 teaspoons of salt added to 500mL of water. Adults over the age of 16 do not need to add salt.

**Q** Do I need to use Fleet?

**A** Some people do need to use Fleet. If it is required, your Specialist or GP will prescribe it and you can get it from your chemist. Using the amount of Fleet prescribed, syringe it through the catheter 10 minutes before the main irrigation.

**Q** What time of day is best to do the irrigation?

**A** Whatever time of the day that suits you and your family, but it must be the same time of day each time you do the irrigation. If you attend school, it is recommended that you complete irrigation in the afternoon or evening.
Q What happens if my bowel doesn’t move?
A There are many factors which could cause this to occur. Your Continence Advisor will advise you on the next step.

Q Do I need to follow a special diet?
A There is no specific diet as such, but you will need to follow a healthy guideline, selecting food from the healthy eating pyramid. It is very important to have enough fibre and fluid in your diet. It may be advisable to speak with the Community Dietitian at Nurse Maude or the dietitian at the hospital.

Q Where does the equipment come from?
A The hospital staff will give you irrigation equipment prior to discharge. Ongoing products will be prescribed by your Continence Advisor who will explain your allocation and provide you with a prescription card. Your products can be either collected from Nurse Maude or couriered to your house for a small fee. People from outside Christchurch will be referred to a Continence/Stomal Advisor in their own area.

Note: There is no charge for equipment used for ACE irrigations.

Q What happens if my child is away from home, e.g. school camps, sleepovers?
A For the irrigation to have the best result it is important to continue them at the same time of day. Some patients are able to do their irrigation every other day once a routine has been established. If you are away from home, it is important that you remember to take all the necessary equipment with you to do the flush. For camps, etc. it is advisable to check that the bathroom facilities are suitable.

Q How do I care for the equipment?
A All equipment is cleaned in hot soapy water, rinsed under hot tap water and kept dry between each irrigation in order to prevent infections. It should be clean but does not need to be sterile. It is also very important to wash and dry your hands before and after each irrigation.

Q The initial catheter has disappeared ‘inside’ - what do I do?
A At times you will be aware that the catheter moves in and out and this is not to be concerned about. Muscular action (peristalsis) sometimes draws the tube further into the body but if the catheter completely disappears or if you continue to have a concern, contact your Continence Advisor.

Q What do I use to cover the ACE?
A Initially, when you go home the catheter site is covered with a gauze dressing. After the initial catheter is removed, the area does not usually need to be covered. Should you have concerns about this, contact your Continence Advisor. Usually a Bandaid is OK.

Q What happens if the skin gets red around the stoma?
A Infections sometimes occur after surgery. Please consult your GP or contact the hospital. Sometimes the skin around the stoma can become red because of leakage and is not infected.

Q What if my stoma keeps closing over?
A Some people have difficulty with ongoing problems inserting the catheter because the skin tends to grow over it between irrigations. When this occurs, a ‘plug’ made of silicone can be inserted into the opening (stoma). The plug helps keep it open. Alternatively a catheter can remain in the stoma and not be removed between irrigations. This can be covered with a bandaid. Please consult your Surgeon.

Contact people

- Nurse Maude
- Continence Advisor