

THE 'ACE' PROCEDURE

The abbreviation ACE stands for Antegrade (in a forward direction) Continent (with bowel control) Enema (washout of the lower bowel or colon). Some people call it the Malone ACE or MACE procedure.

Why is it done?

The ACE procedure is performed for severe constipation.. It can also be performed for incontinence of stool (loss of bowel control)

Surgery is very rarely appropriate for treating constipation. Almost everyone has episodes of constipation at some time, usually due to an acute illness or a change in diet. The main treatment of constipation is to increase the fibre content of the diet and to drink plenty of water. If this fails, then some medicine to make the stool bulky and softer will often be prescribed. In other cases, laxatives are required.

A tiny subgroup of patients is referred for surgery for constipation, and only after all other avenues of treatment have been fully explored. Your surgeon may then discuss which operation they recommend. If you may be suitable for an ACE operation, this leaflet is for you.

Loss of bowel control is a very distressing symptom. The ACE procedure is occasionally appropriate. If your surgeon is considering this option, the reasons for this choice will be discussed in detail.

How does it work?

The ACE operation allows patients to self administer enemas into the bowel near to its start (the caecum) rather than at its end (the anus or back passage). By placing the enema in the caecum, the bowel is encouraged to contract and hopefully the whole bowel evacuates.

What happens at an ACE operation?

The operation constructs a small tube that connects the skin in the lower abdomen to the bowel. Luckily nature has given us a suitable tube - it is called the appendix! The original ACE operation involved disconnecting the appendix, turning it around so that the base (which is wider) was attached to the skin and the tip was attached to the bowel. By burying the tip in the bowel wall, a valve was constructed that prevented stool leaking back up the tube onto the skin.

Some surgeons leave the appendix the correct way round and make a little valve at its base. Of course some of us have had our appendix removed, usually in childhood. If this is the case, a tube can be made from the large bowel, or from the small bowel nearby (Monti tube).

A recent innovation involves using the natural valve at the end of the small bowel (ileo-caecal valve) and reconfiguring the anatomy in the region completely.

You can see that the ACE procedure is still evolving and each surgeon has their own preferred method of performing it. This is because many surgeons have found that no one method works every time.

How is the ACE used?

Each day (or as often as is necessary), a small tube called a catheter is passed down the ACE tube. The catheter is sterile and for single use only. It is lubricated by wetting it in tap water.

Fluid is introduced into the bowel via this tube. The sorts of fluid used include tap water, phosphate enemas, micro enemas and PEG solutions.

How quickly does it work?

After the operation, your surgeon may ask you not to use the ACE stoma for a few days until it has healed well. Some surgeons leave a tube in the ACE stoma during this time.

Subsequently, when you want your bowel to work you pass a catheter into the stoma, give the enema and remove the catheter. Usually the bowel moves between twenty minutes and one hour later.

What can go wrong?

Having an ACE procedure is a major operation. The join between the ACE tube and the bowel can leak, though this is rare. None the less, such leaks are very serious and can cause peritonitis. Peritonitis is a very serious condition and it can cause serious complications and even death if not treated correctly immediately. This is why ACE operations are only performed if all other treatments have been tried.

More commonly the opening at the skin narrows down (stenosis) and this makes it difficult to pass the ACE catheter to introduce the enemas. This

may require a revision of the opening of the ACE or complete revision of the whole operation.

Despite making a valve to try to prevent it, ACE stomas often leak stool back onto the abdominal skin. This is controlled by wearing a little bag, like a tiny Ileostomy or colostomy bag. The skin can get very irritated by this leakage.

Occasionally the catheter can inadvertently perforate the ACE tube and this usually results in pain. When this pain settles down, the tube may narrow down and prevent further passage of the catheter. This may require a further operation to put things right again.

Who will do my ACE operation?

The ACE operation should be done by an experienced bowel surgeon or a specialist in children's surgery, in other words someone who is trained in the technique. Ask your surgeon about their experience of this procedure and about the results that they have obtained.

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Patient Information Guide

The Hirschsprung's & Motility Support Network.

The HMDSN's website
has information for patients about
at
www.hirschsprungs.info.

This is one of a series of leaflets issued by the
Hirschsprung's & Motility Support Network with
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