The word “stoma” comes from the Greek word for mouth or opening. Following resection of the bowel, the surgeon may bring the remaining bowel through the abdominal wall and suture it to the skin to form a colostomy (large bowel stoma) or an ileostomy (small bowel stoma). The stoma will enable faeces to drain into an appliance. Surgery may be necessary for conditions such as carcinoma, ulcerative colitis, Crohn’s disease, diverticulitis, ischaemia, trauma, volvulus, slow-transit constipation and incontinence, radiation damage or as a palliative procedure for bowel obstruction. (A urostomy is created by implanting the ureters into an isolated section of the small bowel to enable urine to drain for patients without a functioning bladder, e.g., due to incontinence or bladder cancer.)

Stomas are permanent or temporary. The surgeon may reverse a temporary stoma once the surgical join heals. The choice of appliance depends on the type of stoma formed. Appliances are drainable or closed (and therefore cannot be emptied). There are “one-piece” appliances, in which the adhesive base plate and pouch are joined, and “two-piece” appliances, in which the pouch clips onto or sticks to the separate base plate.

Patients with a new stoma undergo physical and psychological adaptation. It is vital that they feel that their appliance is well-fitting, secure and discreet. Teach patients self care as soon as possible to promote independence in normal daily activities and to aid psychological adaptation. When caring for these patients, avoid showing any aversion to the smell or the procedure, in order to support their ability to cope with the stoma.

This guide describes how to cut an accurate template for a one-piece ileostomy or colostomy appliance when it needs changing. When a stoma is formed, it is swollen (oedematous). It will reduce in size over the next 2–4 weeks for an ileostomy and 6–8 weeks for a colostomy. During this time, frequently resize the template to ensure an accurate fit. If the template is too big, a prolonged exposure of faeces causes the abdominal skin to become excoriated and painful. A template that is too tight can cause trauma to the stoma and/or leakage. Check the template annually; it can change due to factors such as weight change or hernia formation.

An ileostomy is a stoma made from the small bowel or ileum. This type of stoma is formed, whenever possible, from the terminal ileum in order to have the full length of the ileum available for absorption of nutrients, and is usually situated in the right iliac fossa. Ileostomies are “spouted” to ensure that semi-liquid faeces are not in contact with the skin, preventing skin damage.

A colostomy is a stoma made from the large bowel or colon; it is made by bringing a piece of colon through an incision in the abdominal wall, which is sutured into position. Colostomies are usually formed from the sigmoid colon and are therefore situated in the left iliac fossa. However, a colostomy can be raised anywhere along the length of the colon; for example a transverse loop colostomy may be formed for palliation of obstruction.

**Cutting a template for a one-piece appliance**

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Do not undertake or attempt any procedure unless you are, or have supervision from, a properly trained, experienced and competent person.

Always first explain the procedure to the patient and obtain their consent, in line with the policies of your employer or educational institution.

Ensure privacy and make sure that the patient is comfortable. Decontaminate your hands using an alcohol-based hand sanitiser. Put on an apron and non-sterile gloves.

The base plate on the back of the appliance has a size guide to aid cutting.

This method is useful if the stoma is round in shape. Place the stoma measuring guide over the stoma onto the abdominal skin. It should fit around the stoma with about a 1–3-mm gap between the guide and the stoma. Find the correct size.

Place the measuring guide over the base plate of the appliance and draw around the measurement guide to transfer the stoma size directly onto the base plate.

Pull the pouch away from the base plate before cutting as there is a risk of piercing it with the scissors.
Cut the hole in the base plate. Do not “snip”; cut smoothly without jagged edges that could damage the stoma. The appliance is now ready for use; see “Part 4: Changing a one-piece appliance”. Record the stoma size, according to local policy.

If the stoma is oval or an uneven shape, cut the template “by eye”. Pull the pouch away from the base plate. Cut a hole in the base plate in the general shape of the stoma, but smaller than the stoma. Hold the base plate up to the stoma and gradually trim away more of it until you have an accurate fit.

Keep the backing paper on the base plate until you are sure that the appliance is going to fit. Place the backing paper on top of the template and draw around the hole. Cut the template to size and keep it as a record of the stoma size, which can be used again in the future.

Ensure that the template records the patient’s details and the date that it was created before storing it according to local policy.

Remove and dispose of your gloves and apron. Wash your hands with soap and water, drying thoroughly.