Essential care for patients with stomas

More than 102,000 people in the UK have a stoma (Black, 2009a), a figure that has remained largely unchanged for many years. This means nurses working in any specialty may see patients with a stoma. While people with stomas are generally able to care for it themselves after hospital discharge (Bryan and Dukes, 2010), it is essential that nurses have a good understanding of stoma care.

As nurses in any clinical setting may see patients with a stoma, it is vital they develop a basic understanding of stoma care.

This article outlines the three main types of stoma, the specific appliances used for each type, examples of operations that might lead to stoma formation and the reasons for forming them.

What is a stoma?
“Stoma” is a Greek word for mouth or opening. A stoma is surgically formed to pass faecal matter or urine from the body. It is made from a segment of bowel so it is red or pink in colour and wet to touch, like the inside of the mouth; this can be a good analogy when explaining stoma appearance to patients.

There is no sensory nerve supply to the stoma so no sensations such as pain can be felt. This means care must be taken with a stoma as inadvertent damage may not be noticed until the next appliance change.

Why stomas are formed
Stomas can be formed for a number of reasons, such as cancer, diverticular disease and inflammatory bowel disease (see Table 1 for examples).

The type of stoma depends on the disease/problem and may be temporary or permanent. Temporary stomas require further surgery to reverse or close them, so patients can resume passage of flatus and faeces via the anus.

Stoma appliances
An appliance is used to contain the stomal output; these are also called stoma pouches or stoma bags. The appliance is designed to adhere to the abdominal skin around the stoma and collect and contain the stomal effluent.

A stoma appliance has several sections: the adhesive, the bag and the soft cover. The adhesive part of the appliance is called a flange, base plate, face plate or wafer. This part is skin-friendly and is generally formed from materials similar to hydrocolloid dressings, so it is gentle on the skin and also results in very few allergies (Lyon and Smith, 2010). It also adheres well and has healing properties.

The pouch should be applied carefully to the skin around the stoma, known as the peristomal skin. It is essential to ensure there are no creases in the flange, as a crease will lead to an insecure seal of the adhesive and the appliance is likely to leak.

It is also important to ensure the hole in the flange, also called the aperture, is made correctly. Stoma specialist nurses teach patients how to measure their stoma and cut the aperture to fit. The ideal size to cut an aperture is about 2-3mm larger than the actual stoma (Rust, 2007) and the same shape, which is generally circular for an end stoma and oval for a loop stoma. After about eight weeks, pre-cut apertures can be used if the stoma is circular in shape (Thompson et al, 2011).

Appliances come as one-piece and two-piece. In one-piece appliances the flange and the bag are joined together (Bradshaw and Collins, 2009), and are removed as a single unit.

In two-piece appliances, the flange is separate from the bag (Williams, 2006). These two pieces are then joined together with either “clicking” rings or adhesive. A two-piece appliance that joins together with adhesive should never be used without the flange, as the adhesive that joins the two parts of the appliance is not designed for use on the skin. With two-piece appliances, the flange can be left in place for several days (usually four at the most) and the bag part can be removed and replaced as necessary.

It is essential that only special toiletdisposable appliances are put into the

In this article...

- An outline of the three main types of stoma
- The main reasons that stomas are formed
- How to provide basic care for patients with a stoma
All other appliances are designed to be disposed of in general rubbish, as with nappies or sanitary towels.

**Stoma accessories**

A large range of stoma accessories with a variety of functions are available (Nazarko, 2010). Some are used to aid adhesion and reduce leakage, such as seals/washers and adhesive paste. Other accessories help to protect the skin, such as protective wipes, sprays or powders. Adhesive remover can be used to remove appliances.

Many people with stomas will not need any accessories. Those who do have problems caring for their stomas should see a stoma specialist nurse, usually based at the local hospital, for a full assessment before starting any treatments or using accessories (see page 17 for information about stoma complications).

**Types of stoma**

There are three main types of stoma – colostomy, ileostomy and urostomy (Fig 1). They can be temporary and permanent; temporary stomas are often loop stomas and permanent ones are end stoma.

To form a stoma, surgery is carried out that results in a small cut in the abdominal wall through which the bowel is brought. Faeces or urine will pass through the stoma, depending on the type of surgery.

An end stoma is formed when the end of the bowel is brought through the abdominal wall and the ends are turned over (similar to turning the top of a sock over) and stitched with dissolvable sutures to the abdominal wall. These sutures usually dissolve around six to eight weeks after the operation; if they do not dissolve, they should be removed. An end stoma is usually permanent.

A loop stoma is a small loop of bowel that is brought through the abdominal wall. The bowel is then partially divided and the edges are turned back and sutured to the abdominal wall. One end of the loop is proximal and this passes faeces, while the distal end either passes nothing or possibly mucus periodically. A loop stoma is generally temporary; another operation is needed to reverse or close a temporary stoma.

**Colostomy**

Colostomies are formed from the large bowel or colon, often the sigmoid or descending colon, although a transverse colostomy can be formed. They are often 30-35mm in diameter and ideally raised above the skin surface by about 5mm.

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**TABLE 1. REASONS FOR STOMA FORMATION**

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<tr>
<th></th>
<th>Colostomy</th>
<th>Ileostomy</th>
<th>Urostomy</th>
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<tbody>
<tr>
<td>Rectal cancer</td>
<td>Rectal cancer</td>
<td>Bladder cancer</td>
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<tr>
<td>Anal cancer</td>
<td>Crohn’s disease</td>
<td>Spina bifida</td>
<td></td>
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<tr>
<td>Crohn’s disease</td>
<td>Ulcerative colitis</td>
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<tr>
<td>Sphincter repair</td>
<td>Familial adenomatous polyposis</td>
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<td>Faecal incontinence</td>
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<tr>
<td>Congenital malformation</td>
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<td>Diverticular disease</td>
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<tr>
<td>Necrotising enterocolitis</td>
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Source: Burch (2008)
If a colostomy is formed in the distal bowel, such as the sigmoid or descending colon, the stomal output will be flatus and soft, formed faeces. The bowel motion will be similar to the patient’s previous frequency and consistency.

Appliances used with colostomies are usually closed and can be one-piece or two-piece. They should be removed and replaced when a third to half full of faeces.

If a patient needs to replace stoma appliances frequently, there is a risk of damage to the peristomal skin. For those who need to change their appliance more than once a day, a two-piece might be more appropriate, as the flange can be left in place and the skin is therefore protected from skin stripping.

Alternatively, patients can use a plug (Cronin, 2008) or similar device produced by the appliance manufacturers to “hold back” the faeces so they are released at a convenient time.

Colostomies can also be irrigated; this involves instilling warm water into the colostomy using specialist equipment. Irrigation washes out the faeces and flatus from the distal colon and allows patients to be free from a colostomy appliance for a day or two. They can then wear a stoma cap, which is smaller and more discreet than a colostomy appliance. It also means they will not pass flatus between irrigations. Flatus and faeces otherwise pass without control from the colostomy.

Ileostomy

Ileostomies are formed from the small bowel or ileum, often the end, just before it joins the colon; this is called the terminal ileum. They are usually 30mm in diameter and ideally have a small spout of 25mm, which allows the loose faeces to pass into the appliance and not under the inner edges of the flange to irritate the peristomal skin. This type of stoma also passes flatus.

Ileostomy output is looser than colostomy output because it has not passed through the colon. This means there has been no opportunity for the colon to reabsorb fluids and turn the faeces into formed stool.

The average person with an ileostomy will pass 800ml of faeces daily, which requires a drainable appliance one-piece or two-piece to be emptied four to six times daily. A drainable appliance has a fastening on the end that is generally secured with a Velcro-type fastening to allow ease of emptying. Older-style ileostomy appliances may be fastened by a plastic clip or a soft tie.

The faeces and flatus are emptied directly into the toilet and the opening is then cleaned with toilet tissue. The appliance is generally replaced every one to four days.

Urostomy/ileal conduit

Urostomies are generally formed using a small segment of ileum to form the conduit into which ureters are implanted, giving the name ileal conduit. The colon can be used but this is not common.

While a urostomy looks similar to an ileostomy, in that it is about 30mm in diameter and ideally has a 25mm spout, the output is urine, which is passed continually, and a small amount of mucus.

The appliance is drainable but, instead of a Velcro-type fastening, it has a tap or bung to fasten the bottom of the appliance. This can also be attached to a night drainage bag to allow additional drainage overnight, similar to a catheter bag (Fullham, 2008).

The amount of urine passed is about the same as preoperatively, as the urine has simply been rerouted; this is about one to two litres daily.

The appliance can be one-piece or two-piece and is generally replaced every one to three days.

Conclusion

While a colostomy is the most common stoma in the UK, an increasing number of temporary ileostomies are being formed.

As nurses in any clinical area may need to care for this patient group, it is important to have a basic understanding of stoma care. NT

References