

OSTOMY CARE

PROCEDURE[®]

DOCUMENT SUMMARY/KEY POINTS

- There are different types of stomas performed at CHW. They include:
 - Ileostomy
 - Transverse colostomy
 - Sigmoid colostomy
 - Ileal conduit
 - Ureterostomy
 - Vesicostomy
- This document provides guidelines to assist staff with the general care of patients with faecal and urinary stomas and the application of stoma bags.
- Children for stoma management should be referred to the Clinical Nurse Consultant Stomal Therapy (p6154) for review and assessment.
- The Clinical Nurse Consultant Stomal Therapy provides educational support to parents and carers.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	CHW Policy and Procedure Committee	Original endorsed by SMG Jan 1997
Date Effective:	Immediate	Review Period: 3 years
Team Leader:	Clinical Nurse Consultant	Area/Dept: Stomal Therapy

Date of Publishing: 9 December 2010 4:23 PM **Date of Printing:**

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This Policy / Procedure may be varied, withdrawn or replaced at any time. Compliance with this Policy / Procedure is mandatory.

CHANGE SUMMARY

- The sections that have been amended are:
 - Types of Stomas
 - Stomal Complications
- An illustration/diagram of the different types of stomas has been included
- A list of common stomal complications and management has been included
- References updated

READ ACKNOWLEDGEMENT

- Training/Assessment Required – Appropriate Nursing staff assigned to care for patients with a stoma.
- All nursing staff who care for patients with stomas are to read and acknowledge the document.

This document reflects what are currently regarded as safe practice. However, as in any clinical situation there may be factors that cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

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Introduction

Stomal Therapy service supports clinical nurses caring for patients who are anticipating, or who have had surgery which results in the creation of an abdominal stoma for the diversion of faeces and/or urine. It also extends to the care of patients with gastrostomies, draining wounds, fistulae, skin breakdown (eg. pressure areas) and tracheostomies. Majority of the stoma formed in children are temporary, however, the aetiology of the disease will determine if the stoma is going to be temporary or permanent.

A variety of gastrointestinal conditions may result in the creation of a faecal stoma. These include:

- Imperforate Anus
- Hirschsprungs Disease
- Necrotizing Enterocolitis
- Meconium Ileus
- Ulcerative Colitis
- Crohn's Disease

Urinary stomas may be created in children with:

- Spina Bifida
- Neurogenic Bladder
- Ectopic Vesicae

General Principles

- All children admitted to the hospital with an existing stoma should be referred to the Clinical Nurse Consultant Stomal Therapy (p6154) for review and assessment, whether the child is admitted for specific stoma management or other inpatient health management.
- The Clinical Nurse Consultant Stomal Therapy will arrange educational support to parents and carers of children with new stomas and will assist them with their ongoing supplies.
- The Clinical Nurse Consultant Stomal Therapy will assist family to membership to the Ostomy Associations (Colostomy Assn. & Ileostomy Assn.) before discharge for the child's ongoing supplies.
- Parents/carers are encouraged and supported to be involved with stoma care as soon as possible following stoma creation, in preparation for a timely discharge.
- Specific clinical areas (Grace Centre for Newborn Care and the Surgical Unit) order and keep their own supply of stoma bags. Parents and carers are to be encouraged to bring their own supplies when children with an established stoma are re-admitted.

1 New Stomas

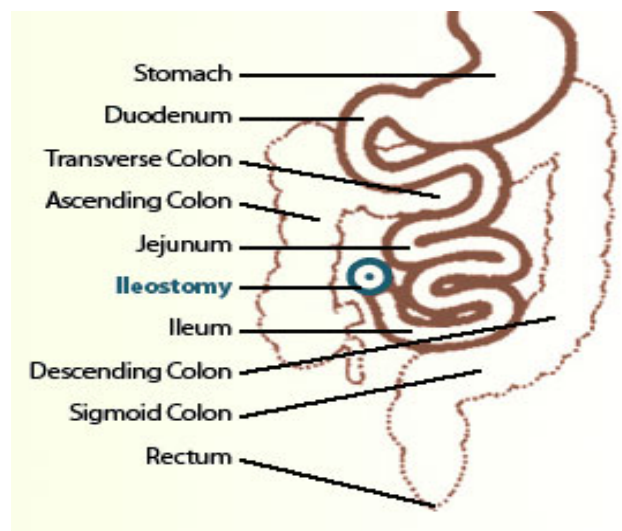
- Planned or elective formation of stomas should be referred to the Clinical Nurse Consultant Stomal Therapy for preoperative education of patient and parents/carers. The Clinical Nurse Consultant in consultation with the surgeon will mark the abdomen for the appropriate site of the planned formation of stoma. Optimal site selection is a key component for preoperative planning and minimizes postoperative complications. Siting (marking the abdomen) is usually done for older children who will undergo planned stoma formation. Neonates usually have stomas formed immediately after birth as an emergency procedure so siting is usually not indicated.
- Check post-operative orders regarding the timing of bag application. Most surgeons prefer not to have a bag applied for at least 24 hours after surgery or until the stoma starts working.
- Nursing staff should document in the patient's notes:
 - Type of stoma formed (colostomy, ileostomy, loop, divided stoma).
 - Location of proximal (working stoma) and distal loop (non – working stoma).
 - Whether the Ileo Caecal Valve (ICV) has been removed.
 - Length of bowel left if a section of the bowel has been removed.

2 Types of Stomas Performed in Children

2.1 Faecal Diversion Stoma

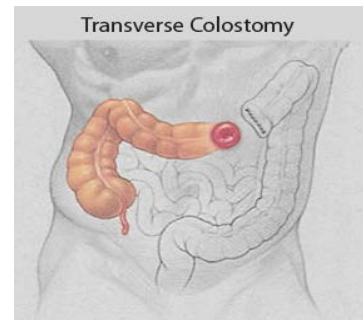
Ileostomy

An opening is made into the distal portion of the ileum (terminal ileum) and then brought out onto the abdominal wall. The end is everted and sutured in place to create a stoma, usually located in the right lower quadrant of the abdomen. The stoma is created high in the gastrointestinal tract; therefore the stool (output) is relatively constant and liquid in consistency. It also contains large amounts of digestive enzymes and salts. Over time, the small intestine compensates and the ileostomy output usually decreases and the consistency becomes slightly thicker (Ileostomy adaptation).



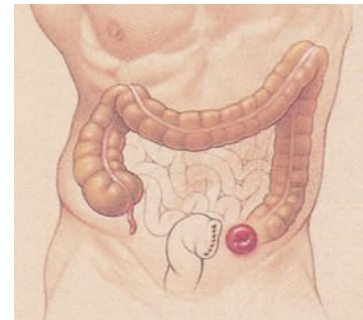
Transverse Colostomy

An opening is made into the transverse section of the colon and then brought out onto the abdominal wall, usually located on the right or left upper quadrant of the abdomen. The Transverse colostomy is usually temporary and the most common type of stoma created with children diagnosed with Hirschsprung's Disease. The output is usually semi-pasty to semi-formed and contains minimal digestive enzymes.



Sigmoid Colostomy

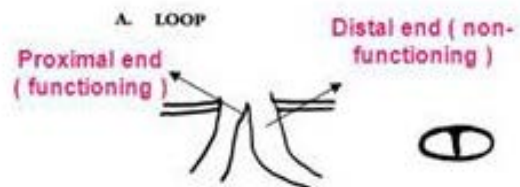
An opening is made into the sigmoid colon and then brought out onto the abdominal wall, usually located in the left lower quadrant of the abdomen and may be created as a divided stoma. Sigmoid colostomies are commonly performed for anorectal malformation. The output is usually semi-formed to formed as most of the water has been reabsorbed at this point.



Colostomies and ileostomies may be formed as a loop stoma (with a proximal and a distal end) or as a divided / double barrelled stoma (with a separated proximal and distal end). A proximal loop/end is the working stoma where the stool will be evacuated. The distal end is the non-working stoma with only mucus normally coming out, hence the term mucus fistula



Proximal loop (working stoma)

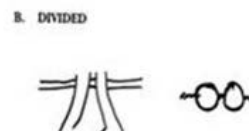


Distal loop (non-working stoma)

Loop Colostomy with proximal and distal end



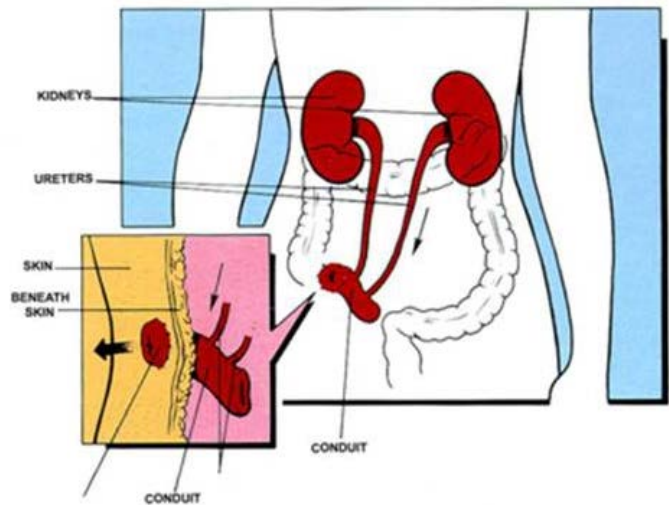
Divided Colostomy



2.2 Urinary Diversion Stoma

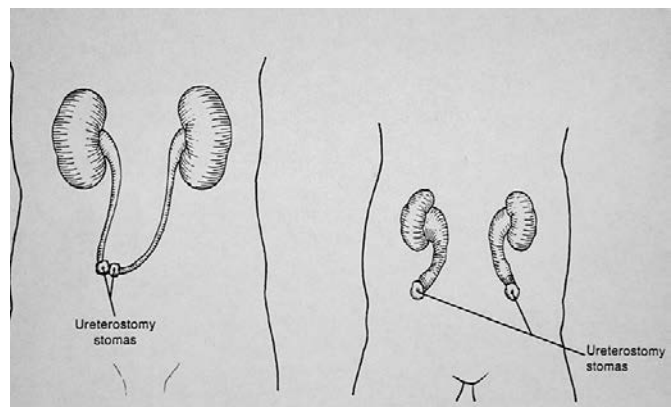
Ileal Conduit

A urinary stoma is created by using a segment of the ileum. A section of the terminal ileum is isolated and separated from both ends. The ileum is then re-anastomosed to restore gastrointestinal tract continuity. The ureters are unattached from the bladder and then implanted into the isolated segment of the ileum. The proximal end of this ileal segment is closed and the distal end is brought out onto the abdomen, everted to form a spout type of stoma.



Ureterostomy

Both ureters are brought out onto the abdomen to form a small stoma. In neonates, ureterostomies are usually located in the flank region.

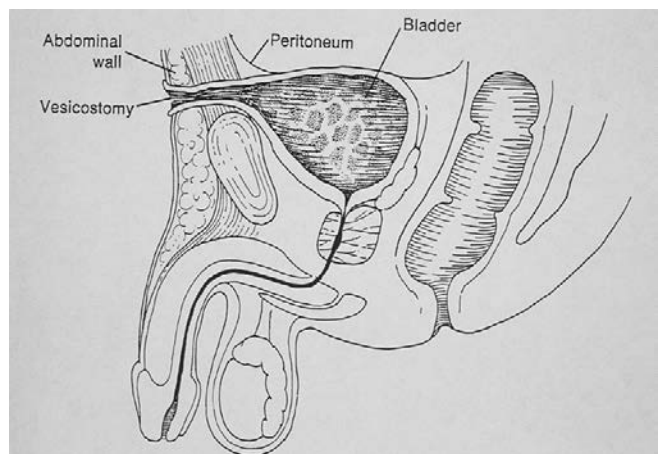


Vesicostomy

An opening is made directly into the bladder and sutured to the abdominal wall. This is usually created for children with neurogenic bladders in myelomenigocele or spina bifida. Postoperative pouching may be a problem because the stoma is usually level and not protruding from the skin.

Alternative management choices are:

- the use of skin barriers to protect the skin from the urine or
- the use of absorbent pads and changing them regularly



3 General Nursing Care of the Stoma

- Assess the location and type of the stoma performed. Stoma location is an indicator of the section of the bowel in which it is located and a predictor of the type of faecal drainage to expect.
- Assess stoma appearance and surrounding skin condition each shift, particularly in the early postoperative period when complications are most likely to occur and most treatable. Observe and document the colour of the stoma, the status of the mucocutaneous junction (contact between the base of stoma and the skin) and the nature/type of the output.
- The stoma should be pink or cherry red in colour, moist and shiny. **Notify the appropriate surgical team if the colour turns dusky or dark.**
- A transparent and drainable bag/appliance is recommended while the patient is in the hospital, so the stoma can be observed easily and emptied regularly when required.
- Change the appliance as soon as there is evidence of leakage, particularly for children with a transverse colostomy and/or ileostomy. The output is corrosive and can damage the skin.
- Empty the appliance/bag when it's about $\frac{1}{3}$ full. This is to prevent 'lifting' of the appliance from the skin due to the weight of the bag and prolong the time the bag adheres to the skin.
- With stomal prolapse, cover it with a non-adhesive dressing or saline soaked pack and contact the surgical medical officer. A crepe bandage may be applied over the dressing as an abdominal binder to prevent further prolapse.
- Change of appliance is a "clean" procedure.

4 Application of Stoma Bag

An effective ostomy pouching system protects the skin and the incision site (particularly in the immediate postoperative period). The system contains the effluent, the odour and helps to promote comfort. It also helps to prevent skin complications and provides a good framework for effective rehabilitation of the patient. The following should be noted:

- In preterm infants the bag wear time may be different from that of older or 'bigger' patients. It is recommended to bag a transverse colostomy and ileostomy because of the corrosive nature of the effluent. The goal for bag adherence is usually 24 hours. However, despite the best bagging system used, the bag may not adhere long enough to the infant's abdomen. Sometimes the skin can become denuded because of the caustic effluent and also due to repeated efforts at re-bagging. When this occurs, application of a barrier cream or protective powder over the skin surrounding the stoma helps protect the skin for a short period of time.
- Urinary stomas (vesicostomy, ileal conduit, ureterostomy) are usually "bagged" in theatre.

- Check post-operative orders regarding the timing of bag application. **Most surgeons prefer not to have a bag applied for at least 24 hours after surgery.**
- The stoma may be swollen immediately after surgery but will shrink over the following few days, so the template/pattern of the stoma will need to be adjusted accordingly in order to prevent the effluent coming into contact with the skin.
- It is best not to change the bag immediately after a feed as this is the time when the stoma is likely to be most active.
- Clean the stoma with normal saline in the immediate postoperative period and for neonates, due to close proximity of the stoma with the main wound. Once the wound has healed, warm water is used (clean procedure applies).

4.1 Equipment

- Appropriate bag – contact CNC Stomal Therapy for advice
- Dressing pack
- Extra cotton wool swabs
- Normal Saline sachet
- Brown paper bag/receptacle for dirty dressing
- Scissors
- Gloves (un-sterile)

4.2 Procedure

1. Measure the diameter and shape of the stoma and cut the wafer at the back of the bag to the appropriate size. Allow at least 1/8 of a mm space between the wafer and the edges of the stoma to avoid constricting the mucosa.
2. Close the open end by applying a clip or folding up the Velcro end.
3. Open the dressing pack, pour the normal saline and have extra cotton wool swabs available.
4. Gently remove the dressing covering the stoma.
5. Cleanse/wash the skin around the stoma using the normal saline and swabs. Ensure **skin is thoroughly dried** to ensure the bag will adhere well.
6. Remove the protective paper at the back of the bag then place the bag firmly on the skin. Gently press the wafer several times around the entire circumference to ensure a firm adherence to the skin. Apply the bag at an angle making sure the open end is at the bottom to facilitate emptying the bag when the child is in a supine position.
7. Discard dressing pack and soiled dressings in the contaminated waste bin.

5 Management of Stomal Complications

The primary goal of stoma management particularly in the immediate postoperative period includes supporting stoma viability and function, maintaining bagging/pouching integrity and preventing complications.

5.1 Bleeding

Bleeding is usually reactive and due to a tight appliance cut too close to the stoma. It can also occur due to the irritation of the stoma from the bag over it or during stoma care (cleansing and during bag change).

Management

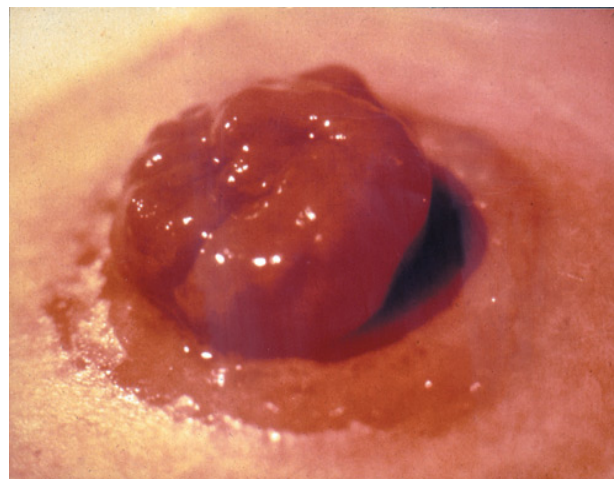
- Ensure bag/appliance is not tight. A stoma pattern should be available at the bedside to provide a guide for subsequent bag changes. Ideally the size of the pattern cut should be at least 1/8 mm away from the edges to prevent irritating the stoma
- Report to the Clinical Nurse Consultant Stomal Therapy or the Surgical Team if bleeding persists.

5.2 Mucocutaneous Separation

Described as partial or complete separation at skin level when suture between stomal tissue and skin tear away. Possible causes include excessive tension at the skin suture line, superficial infection, impaired wound healing, malnutrition and prolonged use of steroids. Another contributing factor is a very tight pouching system resulting in erythema, induration, ulceration and subsequent separation of the mucocutaneous junction.

Management

- Irrigate the area of separation with normal saline and fill defect with a barrier paste (Orabase™) or a Calcium Alginate Absorbent dressing (Kaltostat™, Algoderm™). The bag can then be fitted over the wounded area to protect it from the effluent.



5.3 Stomal Prolapse

Stomal Prolapse is defined as a telescoping of the intestine out of the stoma. It is particularly common in loop transverse colostomies and loop ileostomies. It is typically associated with a large opening in the abdominal wall, inadequate fixation of the bowel into the abdominal wall, insufficient fascial support, or increased intra-abdominal pressure such as when the child coughs, cries and vomits. The prolapse can vary in length as it extends into the bag.

Management

- Most prolapse are reducible. Minor prolapse can subside spontaneously. Manual reduction may be required for larger prolapse. Surgical revision may be indicated if the condition is complicated by obstruction, chronic bleeding, ischaemia or stomal ulceration.
- Ongoing assessment is required for the degree of bowel protrusion, mucosal irritation and colour.
- Stomal oedema may result in ischaemia and necrosis. Stomas that appear dusky, dark, purple or pale must be reported as the blood flow can easily be compromised from oedema.
- Allow a good space between the stomal edges and the wafer of the bag to ensure the stoma is not constricted when stoma becomes swollen
- The bag/ pouch may need to be removed and a cold normal saline compress applied over the stoma to help reduce the swelling.
- A support binder or hernia support belt with a prolapse flap may help stabilize the stoma



5.4 Stomal Necrosis

Stomal Necrosis is defined as the death of stomal tissue resulting from impaired blood flow. It typically occurs within 24 hours of the ostomy surgery. The stoma appears dusky to black and soft, flabby when palpated. Common causes include excessive tension on the mesentery, constricting sutures (too narrowly placed or too tight), pressure caused by too tight bag / appliance. Depending on the extent of the vascular compromise, surgical revision may be needed.

Management

- Regular assessment through a transparent bag to monitor progress as well as accurate documentation and timely referral to the surgical team is essential.
- The bag and wafer (if using a two piece appliance) must be measured and fitted carefully to prevent further vascular compromise. Ensure that there is a good space between the wafer of the bag and the edges of the stoma to prevent constricting the stoma.



6 References

1. Barr JE. (2004). Assessment and management of stomal complications. : A framework for clinical decision making. *Ostomy Wound Management*. Vol.50 (9). Pp. 50-67
2. Burch J. (2005). The Pre and Post-operative Nursing Care for Patients with a Stoma. *British Journal of Nursing*. Vol 14(6). Pp. 310-314.
3. Colwell JC. Beitz J. (2007). Survey of wound, ostomy and continence nurse clinicians on stomal and peristomal complications: a content validation study. *Journal Wound, Ostomy Continence Nursing*. Vol 34(1). Pp. 57-69
4. Darmstadt GL. Dinulos JG. (2000). Neonatal Skin Care. *Pediatric Clinic North America*. Vol 47. Pp.757-782.
5. Doughty D. (2006).Complex ostomy care:paediatric stomas, high output stomas and difficult pouching situations. *World Council of Enterostomal Therapy Journal*. Vol 26(3). pp. 26-31
6. Dykes S. (2010). Ostomies and Stomal Therapy. *American Society of Colon and Rectal Surgeons*
7. Kirkwood L. (2006). Post operative Stoma Care and the Selection of Appliances. *Journal of Community Nursing*. Vol 20(3). pp 12-14.
8. Ratliff C. (2010). Early Peristomal Skin Complications. *Journal of Wound, Ostomy and Continence Nursing*. Vol. 37 (5). Pp.505-510
9. Ratliff C. Donovan A. (2001). Frequency of peristomal complications. *Ostomy/Wound Management*. Vol 47(8). pp. 26-29
10. Ratliff CR. Scarano KA. Donovan AM. (2005). Ostomy care. Descriptive study of peri-stomal complications. *Journal of Wound Ostomy and Continence Nursing*. Vol.32 (1). pp 33-37
11. Rogers VE. (2003). Managing Preemie Stomas: More Than Just The Pouch. *Journal of Wound Ostomy and Continence Nursing*. Vol 30. pp 100-110.
12. Salvadalena G. (2008). Incidence of complications of the stoma and peristomal skin among individuals with colostomy, ileostomy and urostomy: a systematic review. *Journal Wound, Ostomy, Continence Nursing*. Vol. 35(6).pp 596-607
13. Shabbir J. and Britton DC. (2009). Stoma complications: a literature review. *Colorectal Diseases*. Vol 10(8)
14. Williams J. (2006). Stoma Care Part 1: Choosing the right appliance. *Gastrointestinal Nursing*. Vol 4(6). Pp.16-19.

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