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SYSTEMATIC REVIEW ON THE COLOSTOMY CARE

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ABSTRACT

Colostomy care involves managing and maintaining a stoma—a surgically created opening in the abdomen that allows waste to exit the body into a colostomy bag. Key aspects include cleaning the stoma and skin, changing the colostomy bag as needed, ensuring a secure fit to prevent leakage, and monitoring for signs of infection or irritation around the stoma. Proper colostomy care helps maintain hygiene, prevents skin complications, and ensures comfort for the individual.

KEYWORDS – Definition, Indication, Types of colostomies, Characteristics, Procedures

Introduction

A colostomy is a surgical operation wherein the abdominal wall is used to expose one end of the large intestine. To produce a stoma, one end of the colon is diverted during this treatment through an incision in the abdominal wall. A stoma is a skin incision to which a feces-collecting bag is affixed. Individuals with either a temporary or permanent colostomy have pouches attached to their sides that allow excrement to gather and be disposed of easily.

Definition of colostomy care

Colostomy care refers to the management and maintenance of a surgical opening in the abdomen called a colostomy, which allows stool to pass out of the body when part of the colon is removed or bypassed.

Indications of colostomy surgeries

Colostomy surgery may be needed to treat several different diseases and conditions. These include:

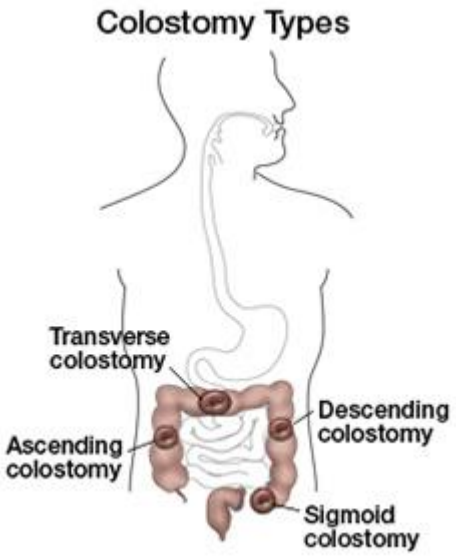
- An imperforate anus is a birth abnormality characterized by a blocked or absent anal opening
- Inflammation of small sacs on the colon due to a serious infection, like diverticulitis
- Inflammatory bowel disease
- Injury to the colon or rectum
- Partial or complete intestinal or bowel blockage
- Rectal or colon cancer
- Perineum wounds or fistulas. An irregular joining of the body's internal organs or parts with the skin is called a fistula. Between the anus and vulva on a woman, and the scrotum on a male, is where the perineum is located.

The reason for the colostomy helps the healthcare provider decide whether it will be short-term or permanent.

Temporary- It may be necessary to temporarily remove the gut and later reattach it due to certain diseases or injuries.

Permanent colostomy- It can be necessary for a more severe or terminal condition, including cancer that necessitates rectum removal or a malfunction of the muscles controlling evacuation.

Types of colostomies according to the location



There are various reasons why a colostomy might be necessary, and every surgery is different. Because the colon is a lengthy organ, it is separated into sections, each of which has a medical term. The locations of the dissection in the colon are the names of the four colostomy types:

Ascending colostomy — It is constructed from the colon's ascending portion. Usually seen in the lower to middle right side of the abdomen, the ascending colostomy. Gas is frequently produced as well as liquid or semi-liquid materials.

Transverse colostomy — The colon's transverse section is used to make it. Usually situated above the navel in the middle of the abdomen is the transverse colostomy. Gas is prevalent and the discharge is frequently liquid to pasty.

Descending colostomy —The colon's descending portion is used to make it. On the lower left side of the abdomen is where the descending colostomy is usually seen. Gas is often the result, and it can range from pasty to a formed consistency.

Sigmoid colostomy —it is constructed from the colony sigmoid. A sigmoid colostomy typically occurs in the abdomen's bottom left quadrant. Gas is frequently produced, and the product is typically pasty to a formed consistency.

Types of colostomy based on stoma

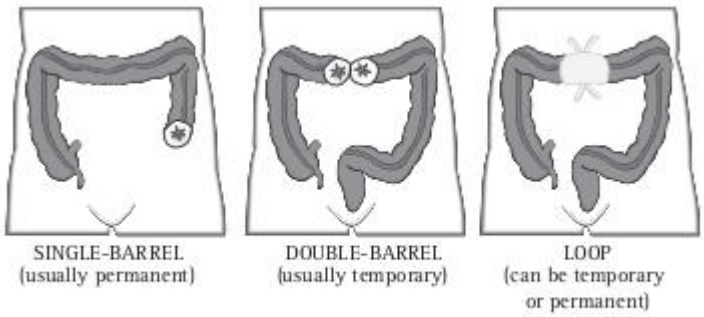


Figure 4. Types of Colostomies

Single barrel colostomy: A stoma is formed starting at one end of the colon. Either the other half of the colon is removed, or it is stitched shut.

Double-barrel colostomy -These days, double-barrel transverse colostomies are rarely carried out. The bowel is split apart during this procedure, leaving the abdominal wall with two stomas. The bowel is brought to the skin's surface through the abdomen in two distinct portions. While the distal stoma passes mucus, the proximal stoma is functional and excretes excrement.

Loop colostomy: Large and temporary stomas like this one are typically employed in emergency situations. An external device holds the intestinal loop in place once it is brought out onto the belly. Following the suture of the colon to the abdomen, a stoma is made with two openings: one for mucus and the other for stool.

Characteristics of Ideal Stoma

- Budded form, beefy red, spherical, and moist
- Resemblance of a rosebud in appearance
- Protrusion 2-3cm (20-30mm)

- Found on a smooth area of the abdomen, far from the umbilicus, beltlines, and bony prominences.
- Lumen at the stoma's center
- Sufficient surface area: a flat surface that surrounds the stoma by two to three inches.
- Location: Easily visible to the patient, the bottom quadrant is often the ideal spot.

Procedure for colostomy care

PURPOSES

- To prevent leakage
- To prevent excoriation of skin and stoma
- To observe the stoma and surrounding skin
- To teach patients and relatives about the care of colostomy and collecting bags.

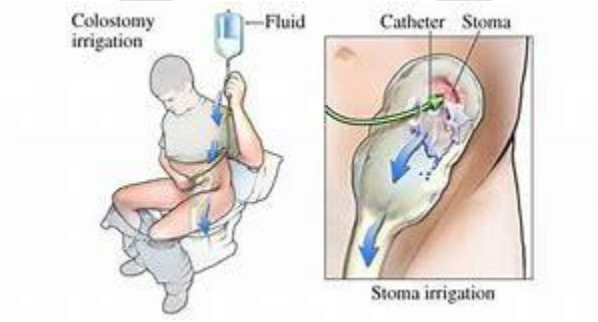
Articles

- A tray containing
- Water in basin
- Soap in dish
- Disposable colostomy bag with clamp
- Stoma measuring guide
- Towel
- Mackintosh
- Clean gloves
- Zinc oxide ointment
- Skin barrier
- Bed pan with cover

Procedure	Rationale/scientific principles
• Identify the patient and check the doctor's order.	• To carry out the right procedure for the right patient
• Explain the procedure to the patient and explain to him how he has to cooperate	• To gain cooperation from the patient
• Assemble the necessary equipment	• For easy access
• Wash hands and wear gloves	• To prevent infections
• Spread mackintosh and draw sheet	• To protect linen from soiling
• Remove the used pouch and skin barrier gently by pushing the skin away from the barrier	• Reduces trauma, jerking irritates skin and can cause a tear
• Remove the clamp and empty the contents into the bedpan, rinse the pouch with tepid water or normal saline	• To minimize the bed odor and growth of microbes
• Discard the disposable pouch in paper bag	• For proper waste management.

• Observe stoma for colour, swelling, trauma and healing. Stoma should be moist and pink.	• To find out complications
• Cover the stoma with a gauze piece	• To prevent the fecal matters from contacting with skin. Stoma surface is highly vascular. Skinbarrier does not adhere to wet skin.
• Clean peristomal region gently with warm tap water using gauze pad. Do not scrub the skin, dry completely by patting the skin with gauze.	•
• Measure the stoma using measuring guide.	• Ensures accuracy in determining correct pouch size needed.
• Trace same circle behind the skin barrier, using scissors, cut an opening $1/6^{th}$ to $1/8^{th}$ inch larger stoma before removing the wrapper over adhesive part. Put skin barrier and pouch over the stoma and gently press on to the skin, for 1-2 minutes. Use the pouch if it drainable using a clamp or clip.	• To prevent irritation to skin.
• Clean and replace all articles	• To maintain inventory
• Wash hands	• To prevent cross infection
• Record the procedure with following details (with date and time). Amount, color, and consistency of the fecal matter in the pouch.	• For further reference

Colostomy irrigation procedure



Articles

- Lubricant
- Irrigation solution
- Irrigation set (1000-2000 ml container, tubing with irrigating stoma cone, clamp)
- Irrigating sleeve with adhesive or belt
- Toilet tissue to clean around the stoma
- Disposable sack for soiled dressing

Procedure	Rationale/ scientific principles
• Identify the patient and check the doctor's order	• To do the right procedure for the right patient
• Explain the procedure to the patient	• To provide a comfortable position
• Make the patient sit in the chair in front of the toilet or on the toilet if the perineal wound is healed. Clear tubing of all air by flushing it with fluid.	•
• Wash hands	• To prevent cross infection
• Place 500-1000ml of lukewarm water (not exceeding 40.5 degrees Celcius) in the container. Hang the container on a hook or IV pole (18-24 inches) above stoma (about shoulder height).	• Rate of flow and forces of the fluid depend upon the height of the reservoir
• Expel the air from the tubing and clamp. It removes the froth if any	• Air introduced into the colon causes discomfort to the patient.
• Untie the colostomy bag and remove the dressing and discard them into the kidney tray	• This helps to control odour and splashing
• Apply irrigating sleeve and place bottom end in toilet bowl	• Allow feces and water to flow directly into the commode.
• Lubricate stoma cone, insert cone tip gently into the stoma and hold tip securely in place. Allow irrigation solution to flow in steadily for 5-10 minutes.	• Lubrication prevents the friction. • Rapid flow of solution can cause abdominal cramps
• If cramping occurs stop the flow of solutions for a few seconds for a few seconds, leaving the cone in place.	• Clamping prevents the introduction of air into the colon. Ambulation stimulates peristalsis.
• Clamp the tubing and remove the irrigating cone when the desired amount of irritant has been delivered or the patient senses colonic distension. Allow 30-40 minutes for the solution and feces to be expelled. Initial evacuation is usually completion 10 -15 minutes. Close the irrigating sleeve at the bottom to allow ambulation.	•
• Clean, rinse, and dry peristomal skin	• To prevent skin irritation.

Types of pouching systems

An ostomy nurse can assist you in selecting the ideal pouch for your circumstances and way of life. Pouches are available in a variety of shapes and sizes. They all have an adhesive barrier (also known as a flange, skin barrier, or wafer) to protect the surrounding skin and a collection pouch to collect stool drainage that exits the stoma. There are primarily two kinds of systems accessible:

- One-piece pouches consist of a skin barrier and a pouch joined together in one unit. The barrier was also removed with the removal of the pouch.

- Two-piece systems consist of a skin barrier and a pouch. The barrier remains in place after the pouch is removed.

For simple emptying, certain pouching systems have a bottom opening. When they are filled, some are closed and removed. Others permit the skin barrier to remain adhered to the body while the pouch is removed, cleaned, and repurposed. Pouches range in price and are constructed of odor-resistant materials. They come in a variety of lengths and can be clear or opaque.

Figure 8
One-Piece Drainable Pouch with Skin Barrier

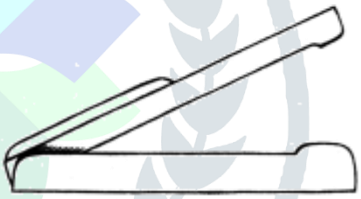


Figure 9
Tail Closure

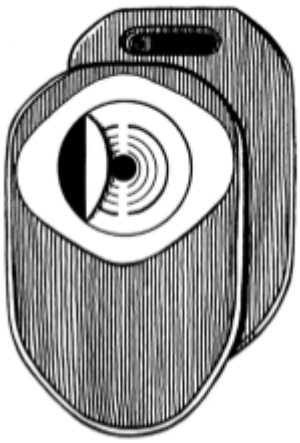


Figure 10
One-Piece Closed-End Pouch with Skin Barrier

Figure 11
Two-Piece Drainable Pouch

Figure 12
Flange for Two-Piece Drainable Pouch and for Two-Piece Closed Pouch

Figure 13
Drainable Pouch Clamp

Figure 14
Ostomy Belt

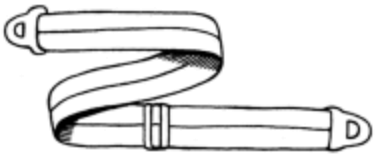


Figure 15
Two-Piece Closed Pouch

Complications

Although stomas are a relatively common and safe surgery, there are some possible complications. These include:

- **Skin irritation.** This is a typical issue brought on by the ostomy appliance's glue. Consider switching to a different appliance or adhesive.
- **Dehydration.** Dehydration may result from excessive waste leaving your body through your stoma. The majority of the time, you can rehydrate yourself by consuming extra fluids, but in extreme circumstances, hospitalization may be necessary. Eat less fat, sugar, and salt and you'll be less likely to become dehydrated.
- **Leakage.** The stoma appliance may leak if it is not fitted correctly. The person most likely needs a new appliance that fits better if this occurs.
- **Bowel obstruction**. Inadequate chewing or improper digestion of the food might clog the intestines. A blockage can cause cramping, gastrointestinal pain, and an abrupt drop in waste production. In case someone observes any indications of a blockage, they need to contact the physician. While some blockages resolve on their own, others need to be treated further.
- **Retraction.** Incorrect implantation, scar tissue, or weight gain are the main causes of stoma movement inward. Retraction can lead to irritation, leaks, and difficulty attaching the appliance. Appliance accessories can be helpful, but in more extreme situations, a new stoma may be required.
- **Parastomal hernia.** This is a common consequence when the intestine begins to thrust outward through the incision. These are rather typical and frequently disappear on their own. To fix it, though, surgery might be necessary in certain circumstances.
- **Necrosis.** Tissue death, or necrosis, is what occurs when blood flow to your stoma is interrupted or decreased. This typically occurs in the initial days following surgery.

The majority of stoma-related issues are mild, but some—particularly necrosis and dehydration—can develop into serious health problems. Notify the physician right away if:

- There is vomit coming from someone, but there is no waste visible in the pouch.
- The skin surrounding the stoma is becoming extremely dark red, blue, or purple.
- and someone is experiencing lightheadedness, vertigo, and constant thirst

Preoperative Nursing Care

- Give them information about what to expect (many patients have anxiety), such as a photo of the stoma and where it is located on the abdomen.
- Start teaching them about the pouching system.
- A doctor could recommend oral antibiotics to lower the amount of germs that typically reside in the colon to prevent post-operative infection.
- It is possible to order a soft or semi-liquid diet two to three days before surgery.
- A clear liquid diet should be followed by the patient for 24 hours before to surgery, and a cleansing solution and laxative may be prescribed to clean the colon. Due to the severe diarrhea they would be having, patients might need to be hospitalized and may require an IV solution to stay hydrated.
- Day of surgery NPO

Monitor the electrolytes, signs of dehydration (urinary output) site and stoma:

- The stoma will be big and bloated following surgery, but it will reduce to normal size after a few months.

Patient teaching

Give the client written, verbal, and psychomotor instructions on how to take care of their colostomy, maintain their pouch, take care of their skin, and irrigate their wounds before they are released. The client will be in charge of caring for the colostomy, whether it is temporary or permanent. Possessing a thorough awareness of protocols and care improves self-esteem, control, and the capacity to give self-care.

• Give the client (and family, if needed) enough time to practice changing the bag on a model or the client. Psychomotor skill practice enhances confidence and learning.

• A client with a colostomy may not need to make any changes to their preoperative diet because it is customized for them. However, dietary education should cover items that thicken and loosen stools as well as meals that produce gas and bad breath.

Foods that cause these effects on ostomy output are listed below.

Foods That Increase Stool Odor is:-

- Asparagus
- Fish
- Beans
- Garlic
- Cabbage
- Onions
- Eggs
- Some spices

Foods That Increase Intestinal Gas

- Beer
- Cucumbers
- Broccoli
- Dairy products
- Brussels sprouts

- Dried beans
- Cabbage
- Peas
- Carbonated drinks
- Radishes
- Cauliflower
- Spinach
- Corn

Foods That Thicken Stools

- Applesauce
- Pasta
- Bananas
- Pretzels
- Bread
- Rice
- Cheese
- Tapioca
- Yogurt
- Creamy peanut butter

Foods That Loosen Stools

- Chocolate
- Highly spiced foods
- Dried beans
- Leafy green vegetables
- Fried foods
- Raw fruits and juices
- Greasy foods
- Raw vegetables Foods That Color Stools
- Beets
- Red gelatin

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