



## **5 Key Steps for an Accurate Stoma Assessment**

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## Five Key Steps for an Accurate Stoma Assessment

Objectives: Upon completion of this activity participants will be able to:

- 1) Define key terminology used in ostomy management.
- 2) Identify five clinical characteristics assessed during a stomal and peristomal skin assessment.

### I. Terminology

- A. The terms ostomy and stoma are general descriptive terms that are often used interchangeably, though they have different meanings<sup>1</sup>.
1. **Ostomy** - term used to describe a general surgical procedure operation in which an artificial opening is formed.
  2. **Stoma** - opening onto a surface; visible part of an ostomy. Fecal and urinary stomas consist of mucous membrane or the lining of the intestine that is exposed to the surface.
  3. **Effluent** - output from a stoma; waste material such as fecal matter, mucous, or urine; may be a liquid, solid, or gaseous emission.
  4. **Diversion** - Surgical creation (ostomy) of an alternative route for effluent (waste products) of the gastrointestinal tract or of the Urinary Tract and can be described as "Continent or Incontinent".
    - i. **Continent diversion** - where the effluent flow can be managed without external pouches or collection devices by the creation of internal reservoirs (pouch.)
    - ii. **Incontinent diversion** – effluent waste products flow from the body spontaneously and the person wears a pouch/collection device.
  5. **Skin Barrier** – pouching system; 'barrier', 'wafer', or 'faceplate'; is adhesive; adheres to the skin around the stoma; attaches the pouch to the body.
  6. **Appliance** - refers to the entire containment system, the pouch/bag, and the skin barrier.

### II. Stoma Assessment<sup>2</sup>

- A. Collection of data that characterizes the status of the stoma and the surrounding peristomal skin.
- B. Performed by inspection (looking), palpation (touching), listening, and smell.
- C. Purpose
1. Identification of signs and symptoms of complications (both stomal and peristomal.)
  2. Foundation for product selection
  3. Tracking progress or deterioration of the stoma
- D. Frequency – Based upon care setting
1. Immediate Post-Op
    - i. Assess stoma every 4 hours x 24 hours and then every 8 hours/prn
    - ii. Per Facility Policy
  2. Matured Stoma
    - i. Assessment upon each appliance change/patient visit, and documented weekly at minimum

#### E. Ideal Stoma Characteristics<sup>2</sup>

1. Moist, round, beefy red, budded protrusion
2. Protrusion 2-3cm (20-30mm)
3. Located on smooth portion of abdomen, away from beltlines, bony prominences, suture lines, and umbilicus
4. Lumen in center of stoma
5. Adequate surface area - two to three inches of flat surface surrounding stoma
6. Location - Easily seen by patient - For many people, the best location is in the lower quadrant

F. Be methodical, begin assessment in center of stoma and assess outward ending with surrounding tissue.

#### III. Location of Stoma

##### A. Abdominal Quadrant

1. Four quadrants of the abdomen include the: Right upper quadrant, left upper quadrant, right lower quadrant, left lower quadrant
  - i. Imaginary line from the sternum to the pubis, through the umbilicus. Second imaginary line is perpendicular to the first, horizontally across the abdomen through the umbilicus.

B. Note if stoma is located near umbilicus, in a skin fold, at the beltline, or near a bony prominence that could interfere with obtaining a good seal.

#### IV. Type of Diversion<sup>2</sup>

##### A. Intestinal

##### 1. Colostomy

- i. Ascending - located on the right side of the abdomen; effluent is high volume with a liquid-mush consistency (not seen very often)
- ii. Transverse – located upper abdomen, either in the middle or toward the right side of the body; effluent is a paste-like, soft substance
- iii. Descending – located left lower side of abdomen (LLQ); effluent formed and solid
- iv. Sigmoid - located left lower side of abdomen few inches below descending colostomy (LLQ); effluent formed and solid

2. Ileostomy – located right lower quadrant of abdomen (RLQ); effluent is semi-liquid to soft, semi-fluid, paste-like consistency

##### 3. Continent Fecal Diversions

- i. Continent Ileostomy (Kock Pouch) – located right lower abdomen just above pubic hair line; effluent is liquid
- ii. Ileoanal Pouch Anal Anastomosis<sup>2</sup> (IPAA) – ultimately, no stoma

##### B. Urinary

##### 1. Urostomy

- i. Ileal conduit<sup>2</sup> – located on the Right lower side of abdomen (RLQ)
- i. Ureterostomy – two stomas; one on the right side of the abdomen and one on the left side of the abdomen
- ii. A loop-end procedure may be required with patients with increased adiposity, a thick-short mesentery<sup>2</sup>

##### 2. Continent Urinary Diversions

- i. Indiana Pouch – located on the right lower side of abdomen or at umbilicus
- ii. Mitrofanoff - located on the right lower side of abdomen or at umbilicus
- iii. Orthotopic Neobladder – no stoma

## V. Stoma Construction

### A. Temporary or Permanent<sup>2</sup>

### B. The type or construction of the stoma: end stoma, loop stoma, or a double-barrel stoma.

1. End stoma – one stoma with one opening
    - i. A stoma is created from one end of the bowel. The other portion of the bowel is either removed or sewn shut (Hartmann's procedure).
  2. Loop stoma - one stoma with two openings; one discharges stool, the second mucus.
    - i. A loop stoma is constructed with both the proximal and the distal openings of the intestine are brought out through the same opening in the abdominal wall. The proximal opening of the stoma drains stool from the intestine, while the distal opening of the stoma (the mucous fistula) drains mucus.
    - ii. Immediately after surgery presents with a rod or bridge. This device remains in place until healing is accomplished, usually 7-14 days.
    - iii. There is a technique known as the loop-end stoma, however, the stoma would appear the same as a loop stoma on the surface of the skin. <sup>2</sup>
  3. Double-barrel stoma – two distinct stomas; one discharges stool, the second mucus.
    - i. The bowel is severed and both ends are brought out onto the abdomen and two distinct stomas are made.
    - ii. The stomas may or may not be separated by an expanse of skin.
    - iii. The proximal opening of the stoma drains stool from the intestine, while the distal opening of the stoma, known as the mucous fistula, drains mucus.
- ### C. The stoma has a mucous-lined inner surface that continually produces mucus, a normal function of the intestines, which cleanses the stoma.
1. Rectal discharge of mucous may occur with some patients with a stoma.
  2. Mucous varies in color & consistency from clear to opaque, and thin to thick.

## VI. Rods or Stents in Place

### A. Assess type, location and scheduled removal date.

### B. Bridge or Rod (Loop Stoma)

1. Short, hard plastic tube or flexible plastic catheter that is placed under the loop of the stoma.
  - i. Plastic Rod with Rubber Tubing: The rubber tubing is connected to both ends of the rod to prevent the rod from slipping out.
  - ii. L shaped bridge - A flat rod with one swivel end.
  - iii. Butterfly shaped bridge - folds in half along a hinge and forms a convenient curved shape. It securely opens along its hinge and lays flat on the abdomen.
2. The rod should slide easily back and forth under the stoma.
3. The stoma should be over the middle of the rod and not pushed to one end of the rod. If the stoma rubs against the end of the rod the stoma can sustain damage.
4. Rod is usually removed 7-14 days post op

### C. Stents

1. Fine bore catheters inserted in urostomy surgery to prevent stenosis of the anastomosis between the ureter and the bowel.
  - i. The ureteral stents originate in the renal pelvis, extend down the ureters, and exit through the stoma.<sup>3</sup>
2. May expel spontaneously, do not re-insert. Notify surgeon.
3. Stents should drain urine all the time. Decreased urine output should be investigated. It can be caused by mucus plugs or dehydration.<sup>3</sup>

## VII. Stoma Lumen

- A. The stoma lumen is the opening from which the effluent drains.<sup>4</sup>
- B. Locations
  - 1. Descriptors: Centrally located, side, level with skin
  - 2. Ideally the lumen should empty from the top of the stoma
  - 3. Location of the lumen should be noted using the “clock method” with the patient’s head referenced as the 12 o’clock position.
- C. Number of lumens
- D. Stenosis – narrowing of the lumen

## VIII. Stoma Mucosa

- A. Color<sup>5</sup>
  - 1. Red - Healthy
  - 2. Dark Pink – Healthy
  - 3. Pale Pink – Healthy Urinary stoma; Fecal stomas: anemia, low hemoglobin
  - 4. Dark red/purplish tint - bruising
  - 5. Purple or Blue - lack of blood supply to the stoma
  - 6. Brown - melanosis coli a discoloration from excessive laxative use; lack of blood supply to the stoma
  - 7. Black – Necrosis; lack of blood supply to the stoma
- B. Appearance
  - 1. Shiny
  - 2. Taut – tight; stretched
  - 3. Edematous – normal finding post-op; gradually decreases over 6-8 weeks after surgery. There is no sensation in the stoma because there are no sensory nerve endings in this area.
  - 4. Smooth vs. Textured – grooves; creases; rosebud appearance
  - 5. Moist - The stoma is a mucous membrane and should always be moist with its own natural lubrication.
  - 6. Bloody - superficial bleeding from the stoma during routine cleaning is normal. Stoma tissue is highly vascularized, fragile and does bleed occasionally.
    - i. Superficial bleeding that does not stop spontaneously, excessive bleeding, or prolonged bleeding may be indicative of a stoma complication.
    - ii. Bleeding as a stoma complication can result from inadequate hemostasis during stoma construction, portal hypertension, trauma, underlying disease, and because of some medications, such as prolonged use of analgesic anti-inflammatory drugs, blood thinners, and chemotherapy.<sup>5</sup>
    - iii. Luminal bleeding (bleeding that comes from the lumen of the stoma) is often associated with underlying disease. The clinician should always notify the surgeon regarding luminal bleeding.<sup>5</sup>
  - 7. Lacerated - stoma has been cut or torn. Trauma from friction.
  - 8. Granuloma - small, red, raised areas on or around the stoma
  - 9. Necrosis - discolored and may be dark red, bluish, purple, or black. The stoma will be limp
  - 10. Varices - Purple skin discoloration with dilated, tortuous veins on the stoma<sup>5</sup>
- C. Shape<sup>5</sup>
  - 1. The shape of a stoma is round, oval, or irregular.
  - 2. Stoma shape can vary with peristaltic movements of the intestine.
  - 3. The shape of the stoma is affected by the individual’s body composition and type of ostomy

## IX. Stoma Size and Protrusion<sup>5</sup>

### A. Protrusion

1. The height or protrusion of the stoma is important not only for proper drainage.
2. The protrusion varies in length and can slightly retract or extend throughout the life of the stoma.
3. The stoma height should be measured at the mucocutaneous junction where it attaches to the skin to top of stoma.
4. A stoma can be:
  - i. Flush — at skin level
  - ii. Moderately protruding — one to three cm (10-30mm)
  - iii. Long protrusion — greater than three cm (30mm)
    - a. Greater risk for injury from trauma, laceration or being folded or bent over into the pouching system<sup>5</sup>
  - iv. Retracted — below skin level
  - v. Prolapsed — telescoped away from the abdominal surface

### B. Size

1. The size of the stoma varies due to the anatomic location of the ostomy.
  - ii. Colostomy size varies as the width of the colon varies and therefore, stoma size will vary.
  - iii. Loop stomas are larger than end stomas. Loop stomas are constructed with side of intestine rather than the end.<sup>5</sup>
  - iv. Ureterostomy is a small stoma as it is created from the ureter which has small diameter, compared to the ileal conduit which is created from the wider ileum.<sup>5</sup>

### C. Measurement

1. Accurate measurements of the stoma are important to track the progress of the ostomy but also to determine the correct size of the skin barrier and pouching system.<sup>5</sup>
2. Round stomas are measured by circular diameter.
3. Irregular or oval stomas are measured using the clock method with for length and width.
4. The stoma should be measured at the base from mucosa to mucosa.<sup>5</sup>
5. Measuring guides can be downloaded from many manufacturers' websites. Discard soiled measuring guides.
6. Measurements should be done with each appliance change during the first six to eight weeks of the post-operative period.
7. Size is documented in millimeters or inches. (Skin barrier and appliance sizing are classified according to either "mm" or "in

### D. Oval/Irregular Stoma Measurement

- i. For appliance sizing measurement irregular stomas should be traced and a copy of the tracing should be recorded for appliance fitting.<sup>5</sup>
  - a. Use a piece of plastic transparent material and place over stoma.
  - b. Trace around perimeter of stoma onto transparency with pen or indelible marker.
  - c. Label tracing indicating location of head, feet, pouch side, skin side.
- ii. For detailed documentation measure length and width using the clock method.
  - a. Consider stoma as face of clock. 12:00 points to patients head, 6:00 points toward the patient's feet
  - b. Length = 12:00 - 6:00 patients head & feet as guides
  - c. Width = 3:00 - 9:00 side to side

## X. Stoma Effluent

### A. Fecal Stoma<sup>5</sup>

1. Amount of output
  - i. Postop Colostomy - There may be no fecal output for several days. First 24-72 hrs. post-op may have a serosanguineous discharge then begins to expel formed stool as food intake increases.
  - ii. Postop Ileostomy - Initial output: usually 12 –24 hours postop –dark green, viscous, odorless<sup>5</sup>; as the patient eats the output will thicken.
2. Consistency of output – Thick, Viscous, Liquid, Pasty, Oily, Formed, Soft, Thin, Tarry, Bloody
3. Odor
  - i. Presence or Absence
  - ii. Strong, foul, pungent, fecal, musty, sweet
4. Flatus
  - i. Present
    - a. There is no voluntary control of gas or stool expelled through the stoma.
    - b. Post op flatus is the first sign that the bowel is starting to function again.
    - c. Bowel sounds may not return until 24 to 72 hours after surgery.<sup>5</sup>
  - ii. Amount: Large, Moderate, Minimal
    - a. The average number of gas passages is about 13 to 21/day. Objectively recording flatus frequency (using a diary kept by the patient) is a first step in evaluation if perceived excessive.<sup>5</sup>

### B. Urinary Stoma<sup>3</sup>

1. Post Op Urostomy – Functions immediately, for 24-36 hrs. the output is blood-tinged and contains mucus threads
2. Volume
3. Consistency – Gritty, cloudy, crystals, mucous
4. Color – Straw, amber, clear, blood tinged
5. Odor
  - i. Presence or Absence
  - ii. Musty, fishy, fecal, fruity, ammonia, acidic

### C. Stoma Function Status: Non-functioning (not passing flatus or stool)

## XI. Mucocutaneous Junction

- A. Definition: The skin/stoma junction where the mucosa of the stoma is approximated to the skin surrounding the stoma.<sup>5</sup>
- B. In the initial postoperative period, sutures will be present.
  1. This area should be treated as a wound until the junction of the skin and the mucosa are healed and sutures are removed.
  2. Document number and status of sutures around perimeter base of stoma, all sutures intact and free from redness, drainage, and crusting.
- C. Normal appearance is distinct difference in stoma tissue and surrounding skin.
  1. The mucocutaneous junction should be free of tension and skin breakdown.
  2. Stoma should be intact with surrounding skin.
- D. If a separation is noted between stoma and surrounding skin, document measurements (width and depth) and location of the separation.<sup>5</sup>

## XII. Peristomal Skin

- A. Peristomal plane – surface area that extends out from the base of the stoma in area of approximately 4x4 inches
  1. Assess peristomal plane at a minimum and extend assessment outward as needed based upon findings.
  2. The skin around the stoma should be intact, without erosion, rashes or lacerations.<sup>5</sup>



B. Assess for:

1. Color<sup>5</sup>
  - i. Healthy (no difference from adjacent skin surface)
  - ii. Dusky (pale to bluish color)
  - iii. Erythema (red)
    - a. Redness may be caused by infection, irritation from drainage, urine/feces, dermatitis/trauma from adhesive
    - b. Redness from infection may be seen as diffuse and indistinct, or as intense with demarcated borders, red streaking. In dark skin, the skin may appear purple or a gray hue or deepening of the ethnic skin color
  - iv. Bruised (Purple to yellowish color)
  - v. Jaundice (yellow)
  - vi. Staining
2. Integrity
  - i. Intact (no breakdown in skin)
  - ii. Macerated (white friable skin, too much moisture)
  - iii. Denuded (superficial skin damage)
  - iv. Lesions
  - v. Ulceration (a wound through the dermis layer)
  - vi. Incision
  - vii. Scars - connective tissue reflective of dermal damage; new scars are pink and thick, over time become white and atrophic
3. Texture
  - i. Moist
  - ii. Crusty
  - iii. Warm
  - iv. Weepy
4. Turgor
  - i. Normal (soft, good elasticity)
  - ii. Flaccid (weak and flabby)
  - iii. Firm (hard)
  - iv. Edema
  - v. Induration - hardened mass with defined edges; detected by palpation

C. Peristomal Pain<sup>5</sup>

1. PQRST Assessment
  - i. P = Provokes
  - ii. Q = Quality
  - iii. R = Radiates
  - iv. S = Severity
  - v. T = Time
2. Other questions to ask and look for....
  - i. Vital signs – pulse, blood pressure, and respirations
  - ii. Document verbal and nonverbal responses to pain
3. Pain History
  - i. Present pain management regimen and effectiveness
  - ii. Pain management history - medications, interventions, etc.
  - iii. Effects of pain - impact on ADL's such as sleep, appetite, emotions, concentration, social interactions
4. Patients pain goals
  - i. Attitude toward use of pain medications
  - ii. Family expectations and beliefs
  - iii. Typical coping response to stress or pain

#### D. Peristomal Skin Assessment Tools

1. The Ostomy Skin Tool<sup>6</sup>
  - i. Developed as a comprehensive tool to use for documentation and grading of the peristomal skin.
  - ii. The scoring system allows the health care provider to compare and contrast the condition of the peristomal skin from one assessment to the next and make adjustments to care as necessary
  - iii. The tool provides consistency to the peristomal skin documentation process.
  - iv. The tool provides a simple approach for obtaining information on the condition of the peristomal skin:
    - a. The DET (Discoloration, Erosion, Tissue overgrowth) Score – provides a standardized and validated way to score the peristomal skin through objective observations
  - v. Ostomy skin tool and instructions can be downloaded at no charge.
2. The SACS™ Instrument<sup>7</sup>
  - i. The SACS™ Instrument was developed to help establish a standard language for the assessment and classification of peristomal lesions
  - ii. Provides operational definitions for the consistent interpretation of peristomal skin lesions
  - iii. A content validated measurement instrument to classify lesion type and location
  - iv. An objective classification system to document the incidence of peristomal skin lesions
3. The Peristomal Skin Assessment Guide for Consumers<sup>8</sup> is funded through an educational grant from Hollister Incorporated.
  - i. The Peristomal Skin Assessment Guide for Consumers is a free online guide for individuals living with an ostomy
  - ii. Available free on the WOCN website

#### References

1. What is an ostomy? United Ostomy Associations of America (UOAA) Web site. [http://www.ostomy.org/ostomy\\_info/whatis.shtml](http://www.ostomy.org/ostomy_info/whatis.shtml). Accessed July 31, 2020.
2. Colwell JC. Postoperative Nursing Assessment Management. In Carmel JE, Colwell JC, Goldberg MT. (Eds.). Wound, Ostomy and Continence Nurses Society WOCN® Core Curriculum: Ostomy Management. Philadelphia, PA: Wolters Kluwer, 2016; 9:113-119.
3. Incontinent urostomy: community care, follow-up and complications. In: Geng V, Cobussen-Boekhorst H, Fillingham S, Holroyd S, Kiesbye B, Vahr S. Incontinent urostomy. Arnhem (The Netherlands): European Association of Urology Nurses (EAUN); 2009 Mar. p. 19-65.
4. Barr JE. Assessment and management of stomal complications: a framework for clinical decision making. *Ostomy Wound Manage.* 2004 Sep; 50(9):50-2, 54, 56.
5. Sardina D. Ostomy Management Course Workbook. Wound Care Education Institute, Lake Geneva, WI; 2013.
6. The Ostomy Skin Tool. 2009. Coloplast, Inc. Web site. Accessed on July 31, 2020. <https://www.coloplast.us/ostomy/professional/patient-education/>
7. THE SACS™ INSTRUMENT ASSESSING AND CLASSIFYING PERISTOMAL SKIN LESIONS Content Validated. ConvaTec website. Accessed 7/31/2020 at <https://www.convatec.com/ostomy/patient-support-information/resources/the-sacs-instrument/>
8. Peristomal Skin Assessment Guide, WOCN website. Accessed 7/31/20 at <https://psag.wocn.org>







