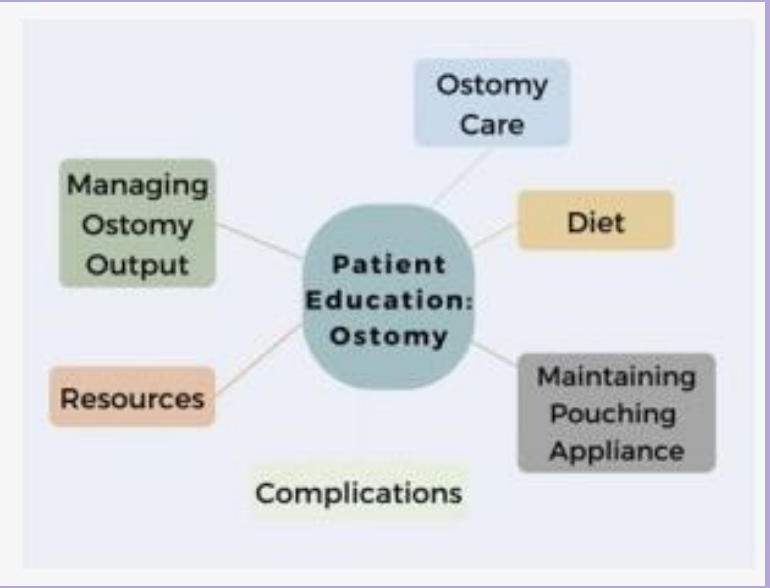
Home Health Ostomy Care and Maintenance 101

A Guide to Caring for Home Health/ Hospice Ostomates in the Home

By Erica Crenshaw

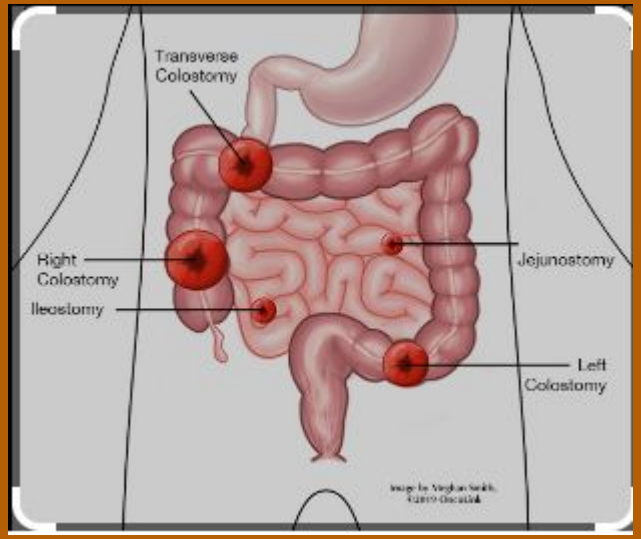
Introduction

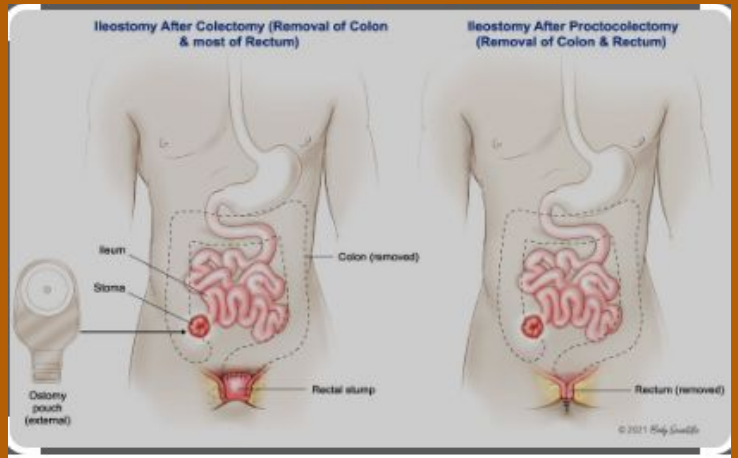
- Distinguish b/n Colostomy, Ileostomy & Ileal Conduit
- Assessment of the stoma
- Ostomy pouching, maintenance of effluent and care
- Diet and nutrition considerations
- Stoma and peristomal skin complications
- Ostomy Nurse Referral



Defining Fecal Diversion: Colostomy & Ileostomy

- Fecal diversions could have...
  - Temporary(Loop stoma construct) or permanent placement (End stoma construct)
  - Single opening (passage of stool) or Double opening (passage of stool+mucus)
- Colostomy
  - Transverse Colostomy: RUQ, midabdomen/ LUQ w/ pasty effluent
  - Ascending Colostomy: rare, right abdominal quad w/ liquid to small particles, malodorous effluent
    - Effluent is a known skin irritant
  - Descending or Sigmoid Colostomy: LLQ, alternate loc LUQ w/ pasty to formed consistency
- Ileostomy
  - Placement: RLQ w/ dark green, viscous effluent
  - Typical high output ostomy

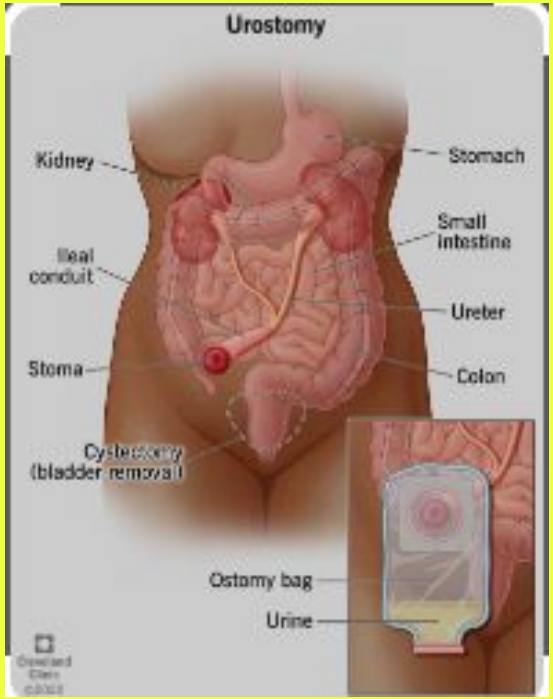


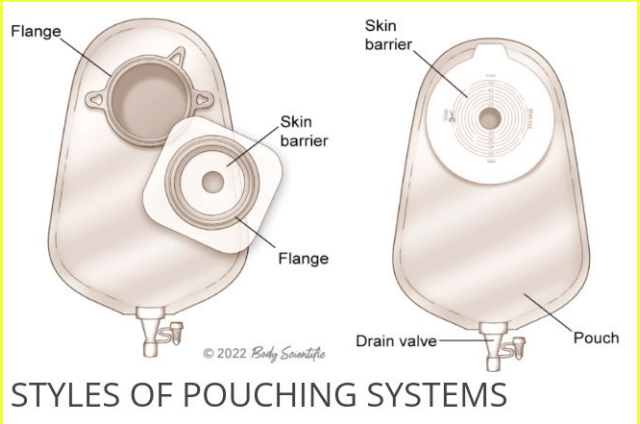


Defining Urinary Diversion: Ileal Conduit

Cystectomy (bladder removal) necessary as this is a permanent construction

- Placement location: Right lower abdomen & typical to see strands of mucus in early PO period
- Indications
  - Invasive bladder cancer
  - Neurogenic bladder
  - Radiation enteritis





Assess your healthy stoma

- ★ **Routine Home Health RN stoma assessments + Routine patient self-assessments**
- ★ **Moist+dark pink/ red+shiny + non-ulcerated= HEALTHY STOMA**
  - **Also assess for symptoms: itchiness, tingling, pain**
  - **Document stoma parameters**
- ★ **Mature Colostomy/ Ileostomy stands 2 in above skin level; Mature Urostomy about 1 in above skin level**
  - **Assess for Stomal prolapse or retraction**
- ★ **Assess Peristomal skin for irregularities/ complications**
  - **Discoloration, erosion, tissue growth?**
  - **Document peristomal skin parameters**

TABLE 3. - Peristomal Skin Health Evidence-Based Statements

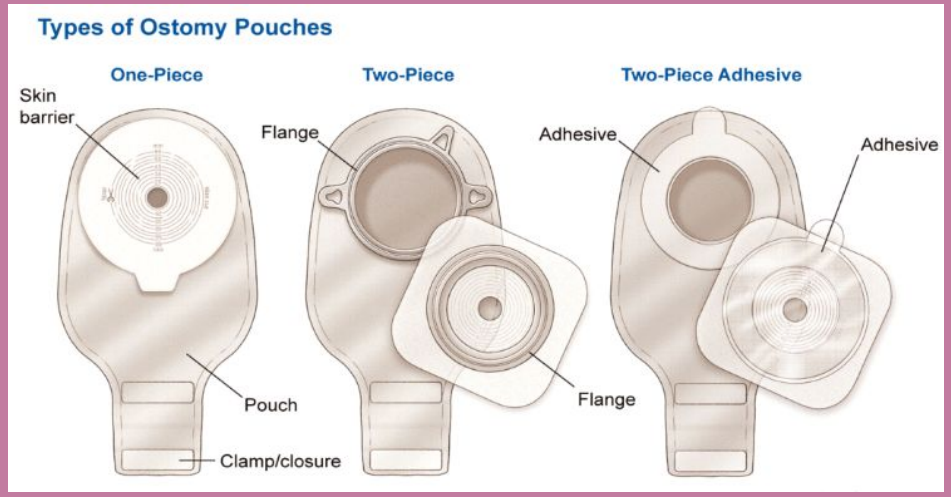
Evidence-Based Statements	Level of Evidence
The incidence of peristomal skin complications is higher within the first 30 days after surgery	B
Irregularity in topography (creases and folds in the peristomal skin) negatively affect peristomal skin health	B
Peristomal skin health is impaired by repeated removal of skin barriers, resulting in epidermal stripping and increased transepidermal water loss	B
Skin barriers with stronger adhesive forces are associated with higher rates and longer persistence of peristomal skin changes than those skin barriers with weaker adhesive forces	B
Mixed evidence suggests that infusion of various additives (aloe, ceramides, manuka honey, vitamin E) may prevent peristomal skin complications	B
A ceramide-infused skin barrier was shown to reduce itching in a single randomized controlled trial	B

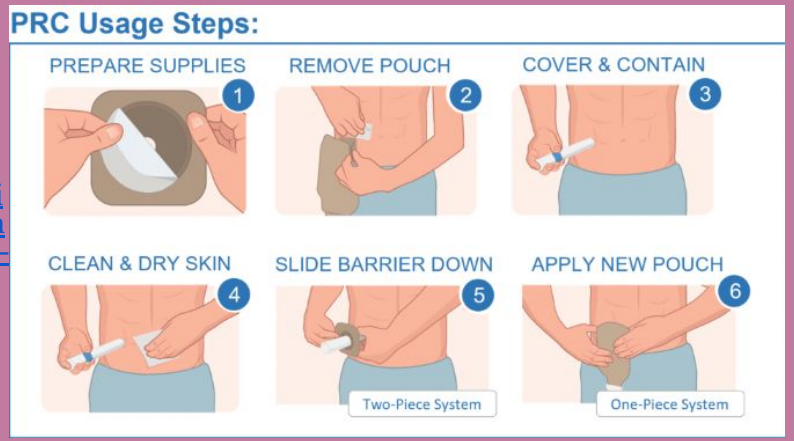
"Stoma" an opening created by ostomy surgery.
It is located on the abdomen and is red/dark pink in color, moist and shiny.
Some describe it as looking like a rosebud.

Guide Patient Step by Step in Preparation, Change & Emptying of Pouching System

- One-Piece System vs Two-Piece System
- Pouch emptying at ⅓ full
- Pouch changing Day 2 or 3
  - Preparation: gather all supplies necessary
- Clinician and pt can work to determine proper wear time
  - Do not change too FREQUENTLY & Do not change too INFREQUENTLY

Video: How to use an ostomy pouching system
https://www.uchicagomedicine.org/conditions-services/colon-rectal-surgery/ostomy/guide-to-pouching-systems/how-to-use-a-pouching-system
(UChicago, n.d.)





Learning to Live, Work & Play with Stoma

- **SHOWERING & BATHING**
  - Shaving Tips incl dry shaving & avoid shaving cream and lotions
- **Fashion & everyday outerwear**
  - Individual style may remain the same, changes or alterations to wardrobe not needed
- **Swimming**
  - Change pouch BEFORE swimtime
  - Ensure proper seal- nothing in, nothing out
  - Bring extra supplies
- **Links for outerwear & swimwear**
  - SIILO Ostomy Swimwear: https://www.siilostomy.com/en/ostomy-swimwear-siil-ostomy/
  - CUI Swimwear: https://cuiwear.com/products/womens-ostomy-swimsuit
  - Ostomy Clothing Company: https://ostomyclothingcompany.com/

- **ALL WORK, NO PLAY for the patient who returns to work**
  - Be prepared & bring extra supplies
  - Also bring an extra pair of clothes
  - Avoid gas-induced foods & burp bag when necessary with air build-up
- **Language Matters.**
  - Ostomy pouch not "Ostomy bag"
  - Emptying the pouch not "Changing the bag"

Scenario	Questions to Ask
Going back to work	Ask patient what they will do about emptying pouch when they go back to work. Do they have a private bathroom and if not how will they empty if they need to go into a stall? What supplies will they take with them? Some patients like to carry small dispensers of air freshener or perfume with their supplies. Do they have a place at work to store their extra pouching system?
Traveling	If a patient is going to travel, they will need to take supplies with them. Depending on amount of time they will be away, they may need to pack supplies in checked baggage but must always have a few changes in their carry-on luggage.
Going out to dinner or to visit family	Suggest patient carry small deodorant spray or perfume in purse if they are worried about odor when they empty. Instruct to place toilet tissue in bowl before emptying so it will not splatter. Carry a small disposable trash bag with them

Ostomy Care & Dietary Considerations

- **PO Colostomy/ Ileostomy pt/s:**
- **Early PO- begin w/ low-residue, low-fiber diet (ie eggs whites, white toast, tuna)**
  - **Gradually add fiber back into diet + well-balanced diet incl plenty of fruits and veggies**
  - **Follow dietary food guidelines & avoid foods (ie cabbage, dairy, gum) to avoid gas**
- **Plenty of fluid intake (8-10 glasses of fluid/ day)**
- **PO Urostomy pt/s: no dietary restrictions BUT fluid intake is a MUST+ diet health is a PLUS**
  - **2000-2500mL/ day fluid intake**
- **Maintain urine pH Balance**
  - **Think well-balanced: Acid-ash foods, Alkaline Ash foods & Neutral Foods**

SUPER NUTRIENTS CHART

Description	Health Effects	Food Sources
Vitamin C (anti-oxidant)	Protects against some cancers and heart disease.	Green & red peppers, oranges, grapefruit, broccoli, strawberries, other fruits and vegetables
Vitamin B6	Helps immune system & prevents heart disease.	Potatoes, bananas, fish, chicken, pork, beef and avocados
Potassium (mineral)	Helps lower blood pressure, risk of stroke and helps regulate fluid and salt balance.	Beets, greens, beans, avocados, yogurt, fish and bananas
Beta Carotene (anti-oxidant)	Aids in bone growth and assists the immune system.	Fruits, green and yellow vegetables
Selenium (mineral)	May protect against prostate cancer.	Nuts, tuna, oysters, fish, poultry wheat germ, brown rice, oatmeal and eggs
Zinc (mineral)	Helps wound healing and benefits the immune system.	Oysters, crab, beef, poultry, pork, lamb, nuts, milk products and beans
Calcium (mineral)	Builds strong bones and teeth. Regulates heart beat and muscle contractions.	Dairy products, sardines, collard greens, salmon, broccoli, beans, almonds and seeds
Magnesium (mineral)	Reduces risk of heart disease and strengthens bones.	Almonds, spinach, sunflower seeds, fish, tofu, wheat bran, brown rice, avocados and beans
Folic Acid - vitamin B needed for cell division and protein synthesis	Reduces the risk of birth defects and protects from cancer and heart disease.	Beans, spinach, oatmeal, corn, asparagus, avocado, peas, broccoli and brussel sprouts

Source, Peggy Christ, RNET, *Ostomy Quarterly*, Vol. 1, No. 37

FOOD REFERENCE CHART FOR PEOPLE WITH AN OSTOMY

For individuals who have had ostomy surgery, it is important to know the effects of various foods on ileal output. The effects may vary with the remaining portion of functioning bowel.

Listed below are some general guidelines of the effects of foods after ostomy surgery. Use trial and error to determine your individual tolerance. Do not be afraid to try foods that you like, just try small amounts.

Gas Producing	Odor Producing	Increased Stools	Stoma Obstructive
Alcoholic bev.	Asparagus	Alcoholic bev.	Apple peels
Beans	Baked Beans	Whole grains	Cabbage, raw
Soy	Broccoli	Bran cereals	Celery
Cabbage	Cabbage	Cooked cabbage	Chinese vegetables
Carbonated bev.	Cod liver oil	Fresh fruits	Corn, whole kernel
Cauliflower	Eggs	Greens, leafy	Coconuts
Cucumbers	Fish	Milk	Dried fruit
Dairy products	Garlic	Prunes	Mushrooms
Chewing gum	Onions	Raisins	Nuts
Milk	Peanut butter	Raw vegetables	Oranges
Nuts	Some vitamins	Spices	Pineapple
Onions	Strong cheese		Popcorn
Radishes			Seeds

Color Changes	Odor Control	Constipation Relief	Diarrhea Control
Asparagus	Buttermilk	Coffee, warm/hot	Applesauce
Beets	Cranberry juice	Cooked fruits	Bananas
Food colors	Orange juice	Cooked vegetables	Boiled rice
Iron pills	Parsley	Fresh fruits	Marshmallows
Licorice	Tomato juice	Fruit juices	Peanut butter
Red Jello®	Yogurt	Water	Pectin supplement
Strawberries		Any warm or	Tapioca
Tomato sauces		hot beverage	Toast

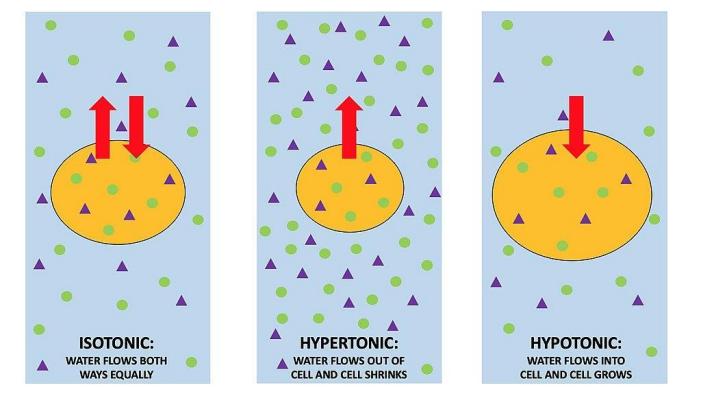
Downfalls of Dehydration: Fluid Electrolyte Imbalances

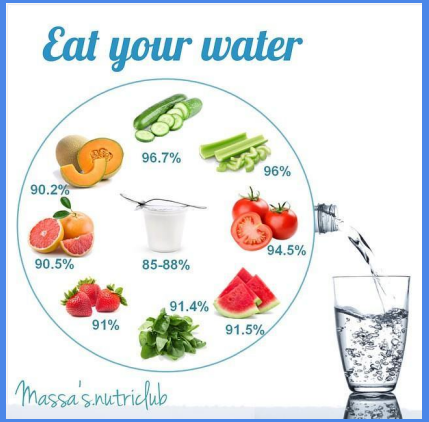
Am. College of Surgeons Dehydration Readmission after Ileostomy Prediction (DRIP) tool to predict readmission rate post ileostomy placement

- Other Risk factors
  - Early postop period
  - Chemotherapy pts w/ nausea, vomiting, diarrhea
  - Infectious enteritis
- Measure output (urine and stool) for about 2-3 weeks postop
- High Stomal Output= 1200-1500mL fluid loss daily
  - Notify HCP for fluid replacement orders
- Short Bowel Syndrome (SBS)
  - Disorder involving failure to absorb key bodily nutrients, minerals & electrolytes
  - TPN may be indicated

Fluid and Electrolyte Problems

Problem	Symptoms	Treatment
Dehydration	Increased thirst, dry mouth, dry skin, decreased urine output, fatigue, shortness of breath, headaches, dry eyes and abdominal cramping.	Increase fluids (any type, Gatorade/PowerAde high in potassium & sodium) Daily intake of fluids should be 8-10 (8 oz.) glasses.
Sodium Depletion	Loss of appetite, drowsiness, headaches, abdominal and leg cramping, feelings of faintness, particularly when standing, cold sensation in arms and/or legs.	Increase intake of foods and beverages high in sodium, such as any regular soup, bouillon, Gatorade/PowerAde.
Potassium Depletion	Fatigue, muscle weakness, gas, bloating, shortness of breath, decreased sensation in arms and legs.	Increase intake of foods high in potassium, such as orange juice, bananas, Gatorade/PowerAde.

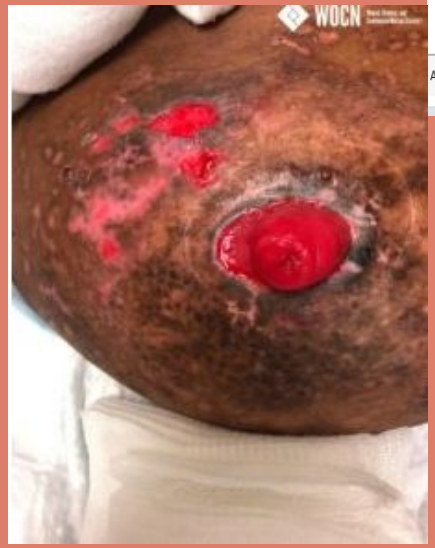


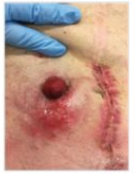
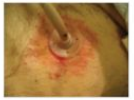
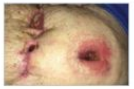


Peristomal Skin Damage: Irritant Dermatitis

Irritant Contact Dermatitis: Skin's prolonged exposure to fluids (urine, gastric secretions, stool, sweat) causing peristomal skin damage.

- **Damage begins at stoma & extends outward.**
- **Mismanagement/ Untreated ICD LEADS TO more skin damage LEADING TO an improper seal LEADING TO more leakage**
- **Nursing Interventions**
  - **Stop the leakage, eradicate skin irritant: Re-evaluate skin barrier size & make adjustments accordingly**
    - **Sizing may change d/t Weight fluctuations, abdominal size changes**
  - **Accessories (belts/ barrier rings) could reduce/ stop leakage**
  - **Pain management: topical corticosteroids, immunomodulators or topical/ PO steroids**



L24B1	Irritant contact dermatitis related to digestive stoma or fistula	Patient has a surgically created (stoma or fistula) or abnormal opening (fistula) to the intestine on the abdomen. Signs of contact dermatitis are present around the stoma or fistula and may extend onto the abdomen.	
		Signs of contact dermatitis are present around the stoma or fistula and may extend onto the abdomen.	
L24B3	Irritant contact dermatitis related to fecal or urinary stoma or fistula	• Patient has a surgically created (stoma) or abnormal opening (fistula) to the intestine on the abdomen. • Signs of contact dermatitis are present around the stoma or fistula and may extend to areas on the abdomen, flank, or back.	

Abbreviation: *ICD-10-CM, International Classification of Diseases, Tenth Revision, Clinical Modification.*

Peristomal Skin Damage:
Pseudo-verrucous

- **Pseudo verrucous: discolored papules and/ or nodules at the perimeter of the stoma**
  - **Fig 1: Partial PV from 12 o'clock to 3 o'clock**
  - **Fig 2: Circumferential PV surrounding outer stomal perimeter**
- **Know your risk factors & start prevention early**
  - **Proper seal, proper fit & proper placement EVERYTIME**
  - **Routine and ongoing assessments of stoma**
  - **Is the patient able to visualize the stoma and perform routine self-care?**
- **Nursing Interventions**
  - **Re-evaluate size & shape of barrier & re-size if needed**
  - **Mitigate moisture: Hydrocolloid Powder & barrier film spray**
  - **Flatten lesions: Acetic Acid (50% Vinegar/ 50% water) soaks**
  - **Reduce bleeding: silver nitrate sticks**
  - **Pain management: Topical Corticosteroids**

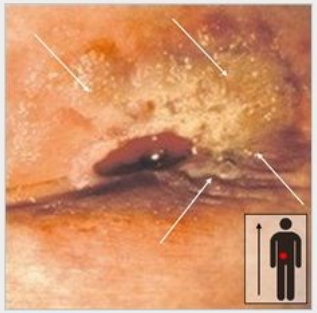


Figure 1: FLUSH STOMA IN A SKIN FOLD WITH PARTIAL PSEUDOVERRUCOUS LESIONSWhite arrows indicate pseudoverrucous lesions. The black arrow indicates the direction of the head of the patient. The red dot on the silhouette identifies the location of the stoma on the abdomen.Reprinted with permission from ConvaTec.

Figure 2: FLUSH STOMA WITH CIRCUMFERENTIAL PSEUDOVERRUCOUS LESIONS AND EXTENSIVE SCARRINGWhite arrows indicate pseudoverrucous lesions. The black arrow indicates the direction of the head of the patient. The red dot on the silhouette identifies the location of the stoma on the abdomen.Reprinted with permission from ConvaTec.

Table 1 - RISK FACTORS CONTRIBUTING TO PSEUDOVERRUCOUS LESION DEVELOPMENT

1. Improper sizing and/or placement of skin barrier
2. Poorly positioned stoma
3. Poorly constructed stoma, eg, flush or retracted
4. Irregular peristomal landing zone
5. Obesity
6. Early postoperative stoma complications, eg, mucocutaneous separation, stoma necrosis
7. Late postoperative complications, eg, hernia
8. Stoma placed outside the patient's visual field

Ostomy RN Referral

- ✓ Postoperative Education
  - IDT collaboration
  - Home support system
- ✓ Food Blockage
  - S/S: watery stool, decreasing output; abdominal cramping
  - Absent output+ N/V= Complete obstruction; send to the ED, ileal lavage likely
- ✓ Altered stoma appearance and/ or peristomal skin integrity
  - Fig 2- partial thickness peristomal skin loss
  - Fig 3- Ischemia/Necrosis/ Slough to stoma
  - Fig 4- Stomal Retraction
  - Fig 8- Stomal prolapse

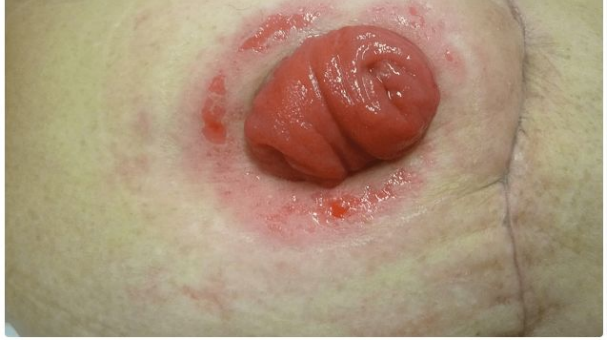


Figure 2: After removing stool and the stoma appliance
Peristomal skin is reddened and eroded.

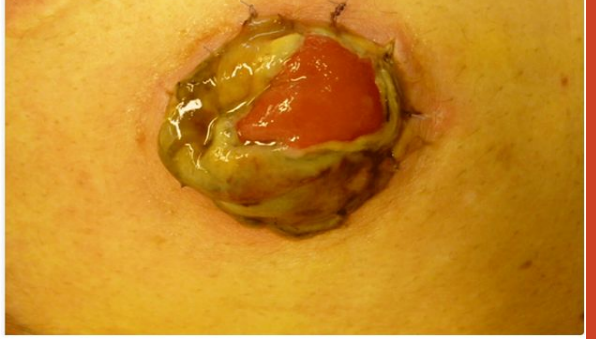


Figure 3: Ischemia and necrosis
Mucosal ischemia typically begins at the mucocutaneous junction.

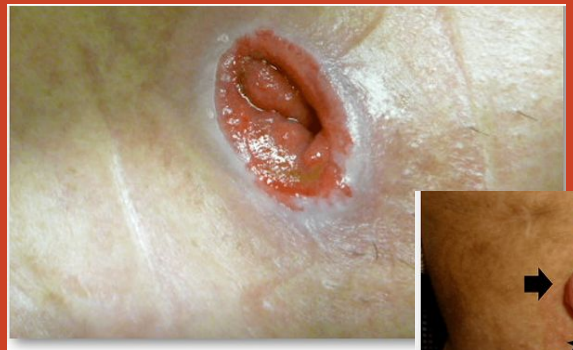


Figure 4: Retraction
The opening of the stoma is under the skin level.

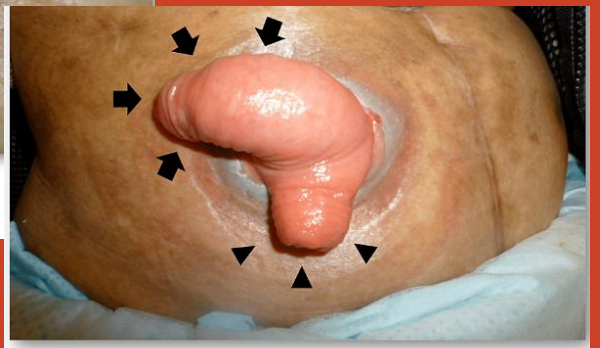


Figure 8: Stomal prolapse
Full-thickness protrusion occurs in both the afferent (arrows) and efferent (arrowheads) limb of the diverting ileostomy.

Review

- Temp or Perm Colostomy/ Ileostomy
- Perm Ileal Conduit
- Assess for healthy stoma- red, moist, shiny
- Peristomal skin assessment
  - Irritant Contact Dermatitis (ICD)
  - Psuedo verrucous lesions
  - Consider early intervention to avoid skin injury
- Prevent electrolyte imbalance
  - Well-balanced diet
  - with hydration
- Seek a referral to the Ostomy Specialist
  - Minimal/ absent output
  - Altered stoma appearance

References

American Cancer Society. (2019, October 16). *Caring for an Ileostomy.* Accessed at https://www.cancer.org/cancer/managing-cancer/treatment-types/surgery/ostomies/ileostomy/management.html#:~:text=There%20will%20be%20times%20when,right%20away%20if%20this%20happens on Apr 5,, 2024.

Berti-Hearn, L. & Elliott, B. (2019). Colostomy Care: A Guide for Home Care Clinicians. *Home Healthcare Now.* 37(2): 68-78. Doi: 10.1097/NHH.0000000000000735

Berti-Hearn, L. & Elliott, B. (2019). Ileostomy Care: A Guide for Home Care Clinicians. *Home Healthcare Now.* 37(3): 136-144. Doi: 10.1097/NHH.0000000000000776

Berti-Hearn, L. & Elliott, B. (2019). Urostomy Care: A Guide for Home Care Clinicians. *Home Healthcare Now.* 37(3): 248-255. Doi: 10.1097/NHH.0000000000000792

Brogna, L. Prevention and Management of Pseudoverrucous Lesions: A Review and Case Scenarios. *Advances in Skin & Wound Care.* 2021. 34(9):461-471. Doi: 10.1097/01.ASW.0000758620.93518.39

Carmel, J. & Goldberg, M.T. (2022). Postoperative Education for the Patient with a Fecal or Urinary Diversion. In J.Carmel, J. Colwell, & M.T. Goldberg. (Eds.), Wound, Ostomy and Continence Nurses Society care curriculum: Wound management (2nd ed., pp 189-200). Wolters Kluwer.

Colwell, J. & Hudson, K. (2022). Selection of Pouching System. In J.Carmel, J. Colwell, & M.T. Goldberg. (Eds.), Wound, Ostomy and Continence Nurses Society care curriculum: Wound management (2nd ed., pp 172-188). Wolters Kluwer.

Carmel, J. & Scardillo, J. (2022). Adaptations, Rehabilitation, and Long-Term Care Management Issues. In J.Carmel, J. Colwell, & M.T. Goldberg. (Eds.), Wound, Ostomy and Continence Nurses Society care curriculum: Wound management (2nd ed., pp 201-222). Wolters Kluwer.

Doty, S.K. (2019). Spotlight on Ostomy Care. *Nursing made Incredibly Easy*, 17(5), 32–41. Doi: 10.1097/01.NME.0000577592.05137.f9

References

Gray M, Colwell JC, Doughty D, et al. Peristomal moisture-associated skin damage in adults with fecal ostomies: a comprehensive review and consensus. *Journal of Wound, Ostomy, Continence, Nurs*. 2013;40(4):389–399.

Hoeflok J, Kittscha J, Purnell P. Use of convexity in pouching: a comprehensive review. *Journal of Wound, Ostomy Continence Nurs*. 2013;40(5):506–512.

Images courtesy of *Ostomy Nutrition Guide,* by United Ostomy Associations of America, n.d., A publication of UOAA, Inc.

Images courtesy of *Know Your Ostomy,* by Burgess, J., 2018, United Ostomy Associations of America,

Image courtesy of *Table 3.: Peristomal Skin Health Evidence-Based Statements,* by Ratliff, C.R., et al., 2021, JWOCN

Jones, T., et al. (May 2011). Fecal Ostomies: Practical Management for the Home Health Clinician. *Home Healthcare Nurse: The Journal for the Home Care and Hospice Professional.* 29(5): 306-317. Doi: 10.1097/NHH.0b013e3182173a89

Ratliff, C.R., Goldberg, M., et al. Peristomal Skin Health: A WOCN Society Consensus Conference. *Journal of Wound, Ostomy, and Continence Nursing.* 2021; 48(3): p 219-231. Doi: 10.1097/WON.0000000000000758

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McNichol, L., Bliss, D.Z,& Gray, M. (2022). Moisture–Associated Skin Damage: Expanding Practice Based on the Newest ICD-10-CM Codes for Irritant Contact Dermatitis Associated with Digestive Secretions and Fecal or Urinary Effluent From an Abdominal Stoma or Enterocutaneous Fistula. *Journal of Wound, Ostomy and Continence Nursing,* 49(3), 235-239. Doi: 10.1097/WON.0000000000000873

References

Szymanski KM, St-Cyr D, Alam T, Kassouf W. (2010). External stoma and peristomal complications following radical cystectomy and ileal conduit diversion: a systematic review. Ostomy Wound Manage;56 (1):28–35. Retrieved from: https://www.researchgate.net/profile/Konrad-Szymanski-4/publication/41111820_External_Stoma_and_Peristomal_Complications_following_Radical_Cystectomy_and_Heal_Conduit_Diversion_A_Systematic_Review/links/00b7d515cd2d1c0942000000/External-Stoma-and-Peristomal-Complications-following-Radical-Cystectomy-and-Heal-Conduit-Diversion-A-Systematic-Review.pdf

Photos courtesy of: **Tsujinaka, S. (2023). Diagnosis, Treatment, and Prevention of Ileostomy Complications: An Updated Review DOI:** 10.7759/cureus.34289

Rodrigues, F.P., et al. (2019). Intestinal Ostomy Complications and Care. *IntechOpen.* Doi: http://dx.doi.org/10.5772/intechopen.85633

United Ostomy Associations of America. Types of Pouching Systems. UOAA, Inc. Publishing. Retrieved from: https://www.ostomy.org/types-pouching-systems/

United Ostomy Associations of America. (2020) United Ostomy Associations of America, Inc. (UOAA) publishing. Retrieved from: https://www.ostomy.org/wp-content/uploads/2023/01/UOAA_Living_with_a_Colostomy_Guide-2022-11a.pdf

Video courtesy of *How to Use an Ostomy Bag and Pouching System* by UChicago, n.d. Retrieved from: https://www.uchicagomedicine.org/conditions-services/colon-rectal-surgery/ostomy/guide-to-pouching-systems/how-to-use-a-pouching-system