



Ostomy: Choosing the Right Appliance

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Objectives: Upon completion, participants will be able to:

- 1) Discuss at least 5 clinical, physical, and social considerations when choosing an ostomy pouching system.
- 2) Identify assistive pouching techniques/interventions for skin folds, retracted stoma, and soft abdomen.

I. Appliance System

A. Definitions

1. Appliance - refers to the entire containment system, the pouch, and the skin barrier; can be either a one piece or two piece systems; can also come in 'closed end' or 'drainable' models. Also known as (AKA) pouching system.
2. Pouch – AKA bag (However do not refer to it as a “bag”); designed to catch and contain stoma effluent (stool/urine). The pouch is made of plastic and is held to the body with an adhesive, (skin barrier).
3. Skin Barrier – AKA 'barrier', 'wafer', or 'faceplate'; is adhesive; adheres to the skin around the stoma; helps to protect skin from stoma output, and attaches the pouch to the body.

B. Appliance Goals

1. Provide a predictable, reliable wear time.¹
2. Wear time should be at least three days and it is not recommended to exceed seven days²
3. The patient should have expectations that if there is no change in output that their pouch will remain intact and provide containment of effluent for a specific period of time.
 - a. Be comfortable.
 - b. Be inconspicuous.
 - c. Easy to apply and to remove.
 - d. Be odor proof.¹
4. There should be no odor when the pouch is in place unless it is being emptied or changed. 2
5. Protect the peristomal skin.¹
 - a. Peristomal skin irritation is a complication associated with ostomy surgery. It can also affect adjustment to the ostomy and stoma but can be corrected with the appropriate pouching system.

C. In order to attain a reasonable quality of life, patients must be confident that the pouching system will maintain a leak-proof seal for a sustained, predictable wear time.^{4,5} Clinicians must select pouching systems or modify pouching systems so they will promote self-care to the patients maximum physical and mental abilities.^{3,4}

II. Considerations in Appliance System Selection

A. Clinical Considerations

1. Perform Complete stoma assessment
2. Type, size, location, peristomal skin, shape, protrusion, complications, etc.

B. Physical Considerations

1. Independent or Dependent with self-care
2. Dexterity Impairment –Is there hemiparesis, paralysis, or any degree of arthritis that inhibits the patient and or caregiver to perform the tasks necessary to change or empty the appliance.
3. Visual Impairment – Is there a visual deficit present; patient cannot see the stoma; unable to see the lines on the wafer to cut it to fit and or where to place the appliance.
4. Cognitive Impairment
5. Moisture Complications – frequent perspiration, hot flashes, environmental concerns

C. Social Considerations

1. Activity level

2. Sports
 3. Financial - Financial burden of ostomy supplies—Patient is self-pay and cannot afford the supplies. The amount of supplies patient needs or goes through is not allowable by Medicare / Medicaid/ private insurance. Patient is unable to pay the co-pay.
 4. Cultural Religious
 5. Intimacy
- D. Nutrition
1. Diet – complications, intolerance, no restrictions
 2. Manipulates diet and fluid intake to manage effluent output
 3. Fluid intake – amount, frequency
 4. Recent weight gain or loss
- E. Appliance System in Use
1. One Piece or Two Piece
 2. Brand, Model and Number
 3. Skin Barrier
 - a. Flat, Convex
 - b. Round or Oval
 - c. Cut to fit or Pre-Cut
 - d. Flexible, Firm
 - e. Re-useable, Disposable
 - f. Tape Frame
 4. Pouch
 - a. Transparent or Opaque
 - b. Drainable, closed
 - c. Re-useable, Disposable
 - d. Closure type: separate or integrated
 - e. Material: plastic; fabric covered
 - f. Disposable liners
 - g. Stoma Cap
- F. Extra Adhesives
1. Paste – Brand
 2. Ring or Strip Barriers; Brand and amount
 3. Liquid Skin Barrier
 4. Cement, Ostomy Glue
- G. Accessories
1. Stoma Filter
 2. Belt – stoma, hernia, support
 3. Pouch lubricant – commercial, home remedies
 4. Odor Control
 - a. Integrated charcoal pouch filter
 - b. Add on pouch filter/vent
 - c. External liquid into pouch
 - d. External powder into pouch
 - e. External tablet into pouch
 - f. Systemic liquid, powder, tablet, herbs or foods
 - g. Other
 5. Drainage Bag
 6. Cover
 7. Protector, Noise suppressor

H. Response to Appliance

1. Skin Barrier Fit
 - a. Opening – No problem, too large, too small
 - b. Fails to maintain contact with skin
 - c. Adhesion – Failure, weak, strong
 - d. Amount of Erosion
 - e. Surrounding topography – creases, scars, incision, hernia, skin fold, boney prominence, etc.
 - f. Flange – coupling seal failure
 - g. Allergies; skin stripping
 - h. Multiple stomas – skin barriers overlap
2. Leakage – location: skin barrier, pouch; frequency; nighttime; amount; predisposing factors
3. Friction – Skin folds, edges cutting into surrounding skin, clothing or binders complications
4. Wear Time
 - a. Skin Barrier
 - b. Pouch
2. Change Frequency – scheduled
3. Unscheduled changes – Reason; leaking, odor, lifting, etc.
4. Emptying
 - a. Frequency – Number of times during day and during night
 - b. Amount – 1/3 full, half full, completely full
 - c. Technique – on toilet facing front/rear, kneeling before toilet, on chair before toilet, standing over toilet, standing over sink, standing over urinal, other
 - d. Complications – splashing, sticking to pouch, odor,
 - e. Rinsing Pouch – never, rarely, sometimes, always; technique used

I. Patient Preferences

1. Is current system meeting patient needs and expectations
2. Satisfactory or problem with:
 - a. Pouch Shape
 - b. Pouch volume
 - c. Pouch material – flimsy, stiff, noisy, sweaty; etc.
 - d. Change Frequency
 - e. Difficulty/time consumption of preparation and application
 - f. Adhesion
 - g. Pouch Profile – bulky, large, difficult to conceal
3. Pouch Direction
 - a. Straight up and down with tail toward feet
 - b. Sideways with tail toward left or right side
 - c. Slight angle away from groin
 - d. Slight angle toward groin
4. Pouch containment
 - a. Folds up pouch to minimize appearance; satisfactory or problem
 - b. Pouch cover – satisfactory or problem
 - c. Binder/Belt to minimize appearance – satisfactory or problem
5. Effluent concerns
 - a. Volume
 - b. Odor
 - c. Flatus
 - d. Pancaking
 - e. Ballooning

6. Waste Disposal preferences – closed end, drainable
7. Connect to bedside drainage – complications, satisfactory, frequency, adaptors and appliances used; securement of bedside drainage: clip, loose, leg bag, dependent position; etc.
8. Peristomal skin care – procedure, frequency, products used, peristomal hair removal, complications
9. Bathing – with or without pouch, change before or after bath; protective devices while bathing
10. Easy of Handling (very difficult, difficult, acceptable, easy, very easy)
11. Security ('very poor', 'poor', 'acceptable', 'good' and 'very good'); techniques for securement: tape border, ostomy adhesives, belt, binder, etc.
12. Comfort (very uncomfortable, uncomfortable, acceptable, comfortable, very comfortable) pain assessment;
13. Irrigation –Schedule, outcomes, leakage between irrigations
14. Activity restrictions – pouch limits, security, odor, etc.

III. Pouching Solutions

A. Visual Deficits

1. Pre-cut barrier less pieces to manipulate

B. Dexterity Deficits

1. One or two piece with closed end pouch; discard rather than empty

C. Flush/Retracted Stoma:

1. Convexity is usually helpful
2. Belts add support at 3 and 9 o'clock
 - a. Belts only help if stoma is close to the waistline, otherwise they tend to pull down
 - b. Binders are more effective when stoma is not in a belt plane
3. Firm faceplates may be helpful (if soft abdomen)
4. Size pouch opening to clear stoma by 1/8 – ¼” to reduce risk of undermining
5. Fecal Stoma -Flat layer of paste to caulk junction between pouch and skin to prevent undermining
6. Urinary Stoma –Cut pouch opening “wide” so pouch adheres to a flat surface

D. Deep Peristomal Creasing:

1. Usually need all flexible system so pouch can “fold” with patient. If crease is only on one side then use barrier strips/paste to create a flat pouching surface
2. Convexity may help if the convexity matches or helps to eliminate the creases

E. Multiple Skin Wrinkles:

1. Flexible system; thin, moldable barrier with a narrow ring that fits right around stoma and has flexible tape border to accommodate wrinkles.
2. May be able to use a 2 pc system with a tape border if abdomen is firm
3. Some patients get better results with a firmer faceplate that supports the skin around the stoma in a stretched position (best if abdomen is soft)

F. Gullies/Defects:

1. Fill with barrier paste (small defects)
2. Barrier wedges/strip (Large defects)
3. Flat and Convex Barrier Rings

G. Soft Abdomen:

1. Firm faceplate helpful
2. Belts and Binders helpful
3. Convexity may help

H. Sweating/Moist under skin barrier

1. Apply aluminum chloride hexahydrate antiperspirant to skin prior to skin barrier application (unbroken skin only).¹⁷¹ Examples: Drysol®, Driclor®
2. Standard wear skin barrier

I. Peristomal Irritant Contact Dermatitis

1. Irritant contact dermatitis is an inflammatory reaction caused by a chemical – in the case of peristomal irritant dermatitis; the chemical could be soap, solvents, adhesives, or even the stomal output most frequently from a poorly fitting pouch or seal.^{6,7} As many as 50% of patients with a stoma have irritant contact dermatitis after ostomy surgery.
2. Management Solutions
 - a. Check for pouching system leakage.
 - b. Compare size of stoma and opening in the pouching system.
 - c. Observe technique in removing and applying pouching system and in cleaning the skin.
 - d. Revise pouching system to ensure that the peristomal skin is protected from stoma effluent.
 - e. Consider correct sizing of pouching system, using convexity or belt, or modification of pouching system.⁷
 - f. Treatment of the damaged skin – Application of a powder skin barrier to absorb the moisture. (Crusting Procedure)
3. Crusting Procedure - A procedure used to create artificial scab on peristomal skin using skin barrier powder and liquid polymer skin barrier. Crusting can protect peristomal skin from effluent, absorb moisture, and increase pouch wear time resulting in fewer pouch changes and less disruption to irritated peristomal skin.
 - a. Indications
 - 1) Denuded peristomal skin
 - 2) Use to absorb moisture from broken skin around the stoma.
 - 3) This allows the barrier to adhere so the skin can heal.
 - b. Contraindications
 - 1) Allergy to product
 - 2) Stop using the powder when the skin has healed and is no longer moist to the touch.
 - 3) Powder is not indicated for the prevention of skin irritation.
 - c. Supplies
 - 1) Skin barrier powder (Antifungal powders may be substituted by a skin barrier powder in cases of fungal infections.)
 - 2) Non-alcohol polymer skin barrier wipes or spray
 - 3) Clean gauze 4x4's or tissue to dust excess
 - d. Procedure
 - 1) Cleanse with water (avoid soap) and pat area dry.
 - 2) Sprinkle skin barrier powder onto denuded skin.
 - 3) Allow powder to adhere to the moist skin.
 - 4) Dust excess powder from the skin.
 - 5) Using a blotting motion, apply the polymer skin barrier or use a polymer skin barrier wipe.
 - 6) Allow the area to dry.
 - 7) Repeat steps 1 - 6, two to four times to achieve a crust.
 - e. Complications
 - 1) Ensure that non-alcohol polymer skin barriers are used because alcohol will cause burning and itching sensations.^{8,9}

IV. Summary

- A. The most important portion of the pouching system is the skin barrier, the interface between the patient's skin and the pouch.¹⁰ Even though more visible, the pouch does not contribute much to the pouch seal.¹⁰ Therefore, the first and foremost important decision to be made when choosing a pouching system is the skin barrier.¹⁰
- B. The Right pouch for the patient is the pouch the patient says is the right pouch.³⁰⁵

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