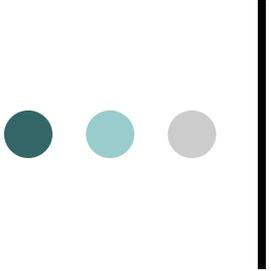


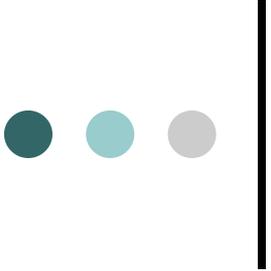
Peristomal Skin Conditions: Part 1

R. B. Turnbull, Jr. School of WOC
Nursing



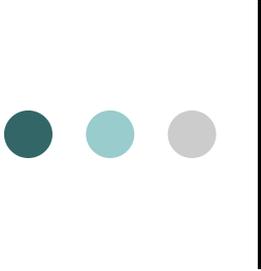
Objectives

1. Compare and contrast the following common peristomal skin conditions: Candidiasis, folliculitis, chemical irritant dermatitis, and pseudoverrucous lesions
2. Develop a plan of care for a patient with peristomal pyoderma gangrenosum
3. Distinguish between the following peristomal skin conditions: Allergic contact dermatitis, mechanical trauma, and peristomal varices



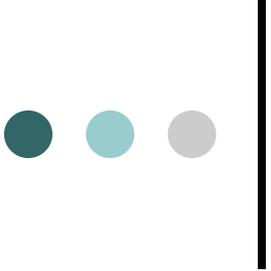
Incidence

- Range for peristomal skin complications: 10-70%
 - Most common complication: Irritant dermatitis



Classification of Tissue Destruction

- Infectious
- Peristomal Moisture-Associated Dermatitis
- Mechanical
- Immunologic
- Systemic disease process
- Other

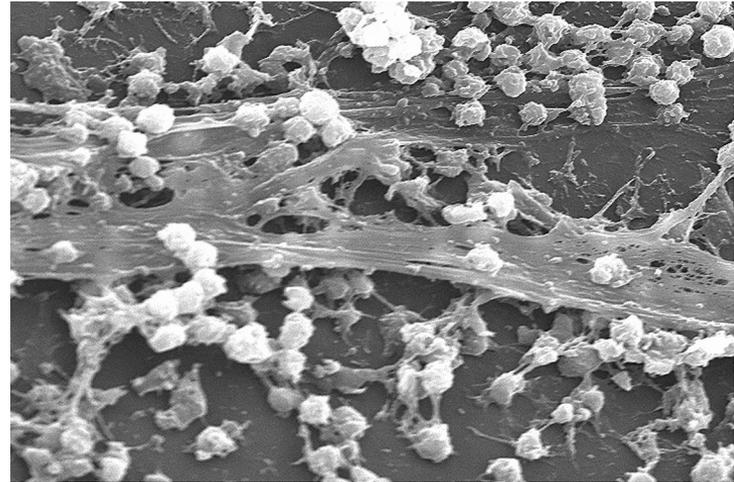


Peristomal Skin Conditions

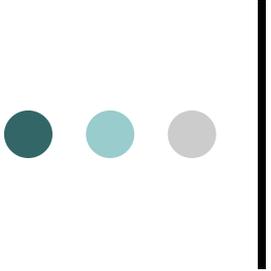
- Infectious
 - Folliculitis
 - Cellulitis
 - Candidiasis
- Peristomal moisture-associated dermatitis
 - Chemical irritant dermatitis
 - Pseudoverrucous
 - Crystals
- Peristomal trauma
 - Lacerations
 - Pressure ulcers
 - Mucosal transplantation (implants)
- Immunologic
 - Allergic contact dermatitis
 - Pemphigus
- Disease related
 - Psoriasis
 - Peristomal varices
- Parastomal ulcers
 - Peristomal pyoderma gangrenosum
- Other
 - Radiation
 - Peristomal suture granulomas

Infectious: Definition

Infections of the skin of bacterial, fungal, or viral etiology



From CDC: Public Health Image Library (PHIL), # 7488
<http://phil.cdc.gov/phil/quicksearch.asp>

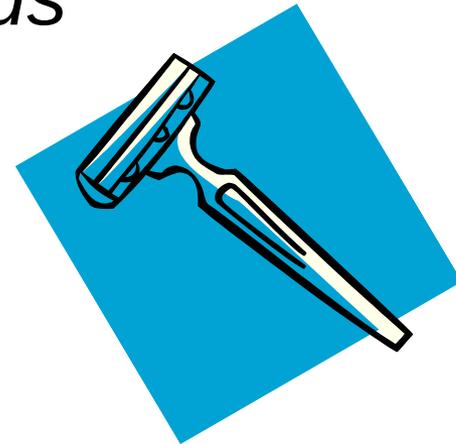


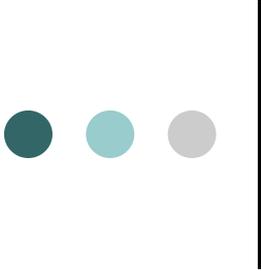
Infectious: Types

- Folliculitis
- Cellulitis
- Candidiasis

● ● ● | Infectious:
Folliculitis

- Inflammation of hair follicles on the peristomal skin caused by *Staphylococcus aureus*

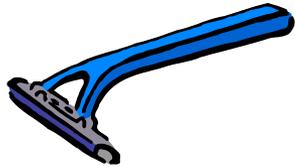




Infectious: Folliculitis

- **Causative factors**

- Shaving
 - Close
 - Dry shave
 - Frequently
- Careless pouch removal



- **Causative microbe**

- Coagulase-positive staphylococci, usually staph aureus infections

- **Risk factors**

- Obesity
- Malnutrition
- Chronic staphylococcal infections
- Diabetes mellitus
- Immunodeficiency

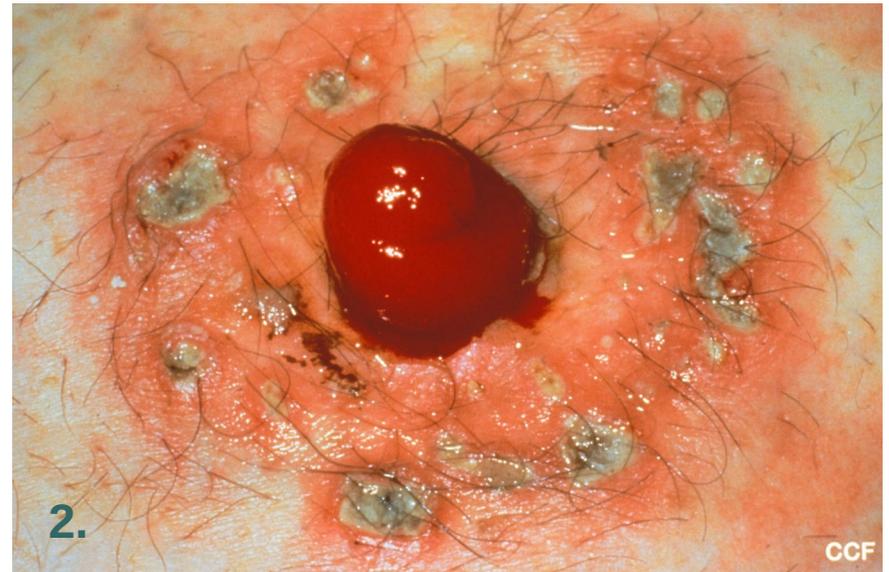


Infectious: Folliculitis

- Clinical features
 - Itchiness
 - Solitary or many
 - Arise from hair follicle
 - Tend to be superficial
 - Erythematic, pinpoint pustules that progress to papules, then crusted areas



Infectious: Folliculitis



Infectious: Folliculitis

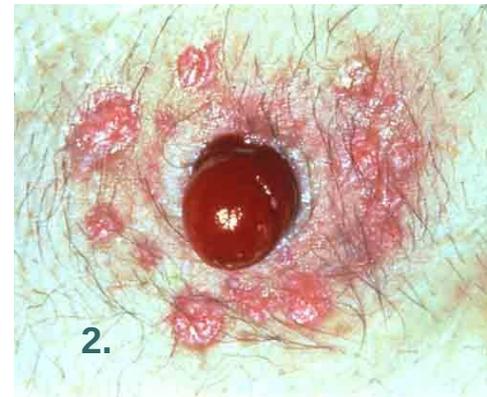
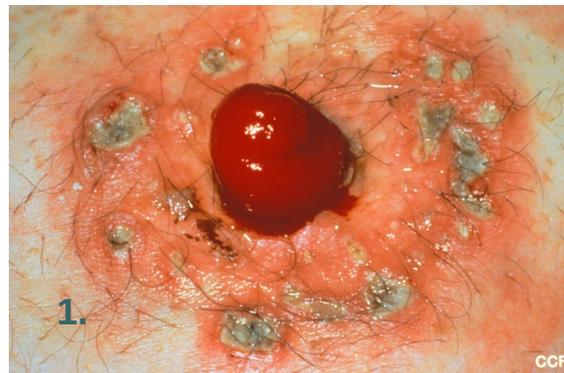
Interventions

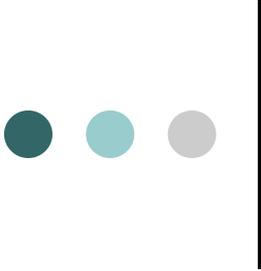
- Gentle pouch removal
 - Technique
 - Use releasant
- Clip hair with scissors
- Shave with electric razor
- Shave in direction of hair growth
- Use plenty of lather with safety razor



Infectious: Folliculitis

- Interventions
 - Cleanse with an antibacterial soap may be useful
 - Antibacterial powder for severe lesions as needed, e.g. polymycin



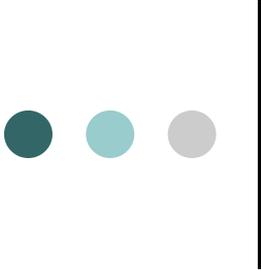


Infectious: Cellulitis

- Serious infection usually caused by streptococci
- Assess for:
 - Heat
 - Pain
 - Swelling
 - Erythema
 - Systemic signs of infection
- Treatment
 - Systemic antibiotics
 - Incision and drainage
 - Modification of pouching system

Infectious: Cellulitis





Infectious: Candidiasis

- Overgrowth of a fungal organism (Candida) of sufficient magnitude to cause inflammation, infection, or skin disease around the stoma
- Also referred to as monilia; is an imperfect fungi
- Most common cutaneous Candida species is *C. albicans*

Infectious: Candidiasis

- Causative Factor
 - Overgrowth of candida stimulated by warmth and moisture



Infectious: Candidiasis



Predisposing conditions

- Anemia
- Surgery
- Medications
 - Antibiotics
- Diabetes mellitus
- Immunosuppression
- Obesity
- Increased perspiration
 - Activity
 - Febrile episode
- Pouch leakage

Infectious: Candidiasis

- Clinical Features

- Extra –follicular
- Itchiness, burning
- Dry and scaly or weepy, stinging
- Bright red center with a group of satellite lesions—advancing border
- Initial lesion pustule; may coalesce into a plaque
 - Pustules abraded with pouch removal

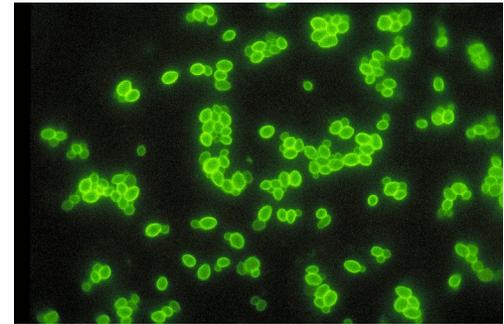
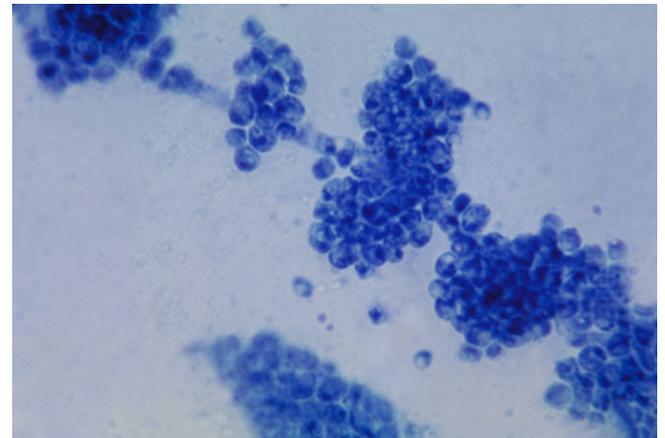


Photo from CDC: Public Health Image Library (PHIL) , #291
<http://phil.cdc.gov/phil/quicksearch.asp>

Infectious: Candidiasis

- Diagnosis
 - Appearance generally diagnostic
 - Microscopic scrapings prepared with KOH (potassium hydroxide)

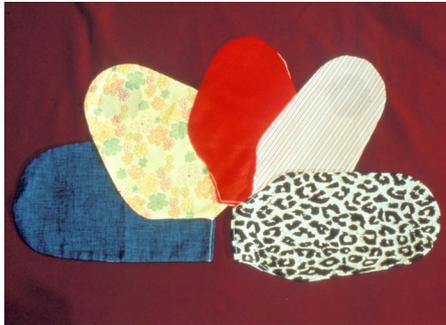




Infectious: Candidiasis

Interventions

- Provide dry environment
 - Proper fit to equipment
 - Porous tape
 - Pouch covers
 - Towel dry or blow dry on cool setting
 - Patient education
 - Use of skin sealants as needed



Antifungal Preparations

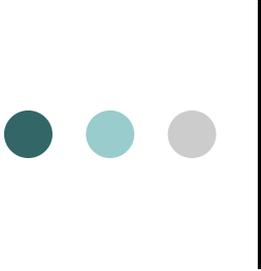
- Use with each pouch change until rash resolve
- Powders give greater degree of inhibition than cream
- Medications
 - Nystatin powder
 - Lotrimin cream
 - 2% miconazole nitrate: comparable potency to prescriptive items (OTC)



Peristomal Moisture-Associated Dermatitis: Definition

- Corrosive or caustic agents contact skin and cause tissue destruction
- Caustic agents include
 - Soaps, detergents
 - Glues, adhesives, solvents
 - Proteolytic digestive enzymes, urine
- Inappropriate or improperly used equipment play contributing roles





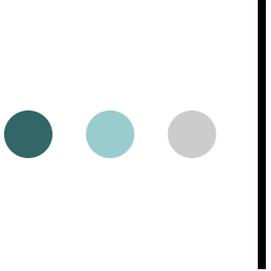
Peristomal Moisture-Associated Dermatitis: Types

- Chemical irritant dermatitis
- Pseudoverrucous lesions
- Crystals

Chemical Irritant Dermatitis

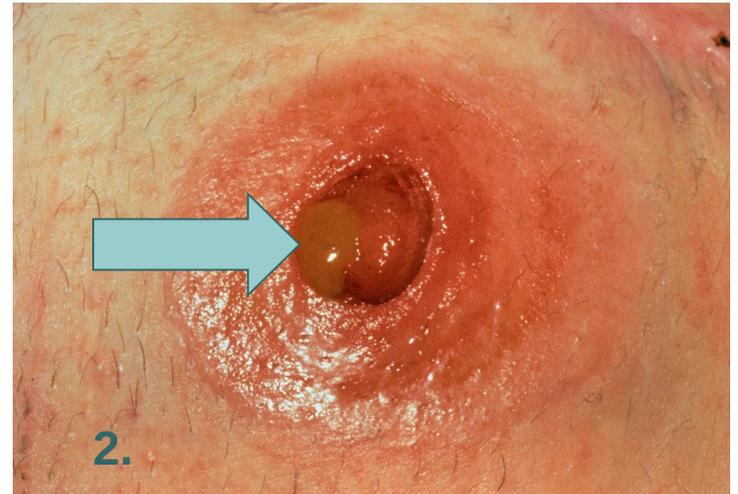
- Appearance
 - Moist
 - Painful
 - Shallow
 - Erythematous





Chemical Irritant Dermatitis

- Etiology
 - Substances come in contact with the skin and destroy or erode the epidermis
 - Damage is localized to the area of contact

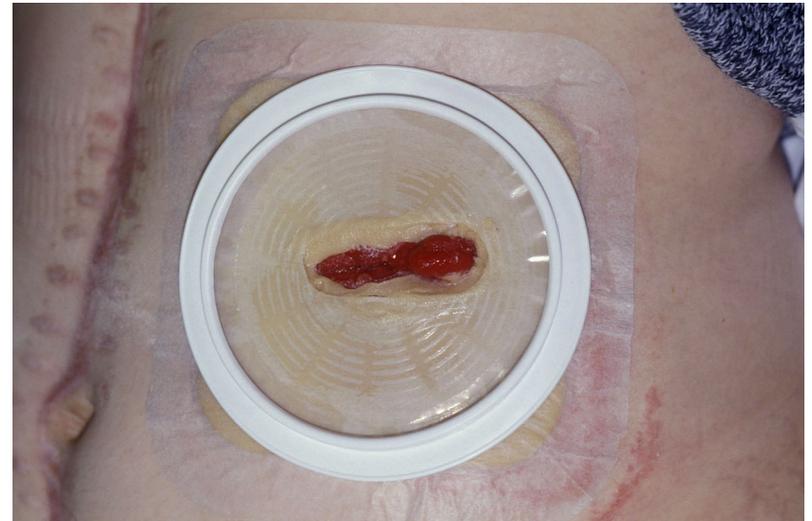
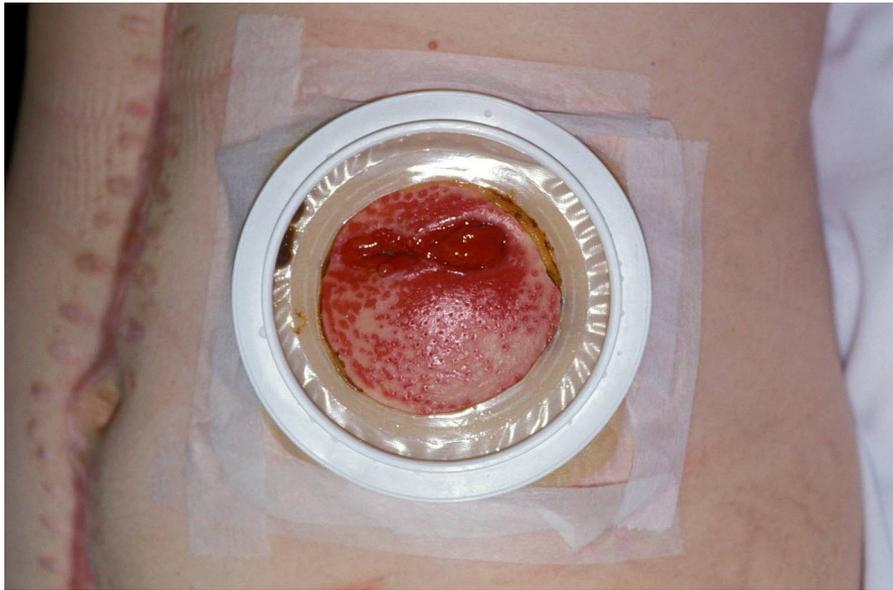


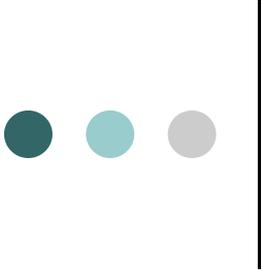
Chemical Irritant Dermatitis

- Treatment
 - Refit pouching system
 - Aperture
 - Convexity
 - Create flat peristomal plane
 - Remove offending product
 - Establish a pouch change schedule



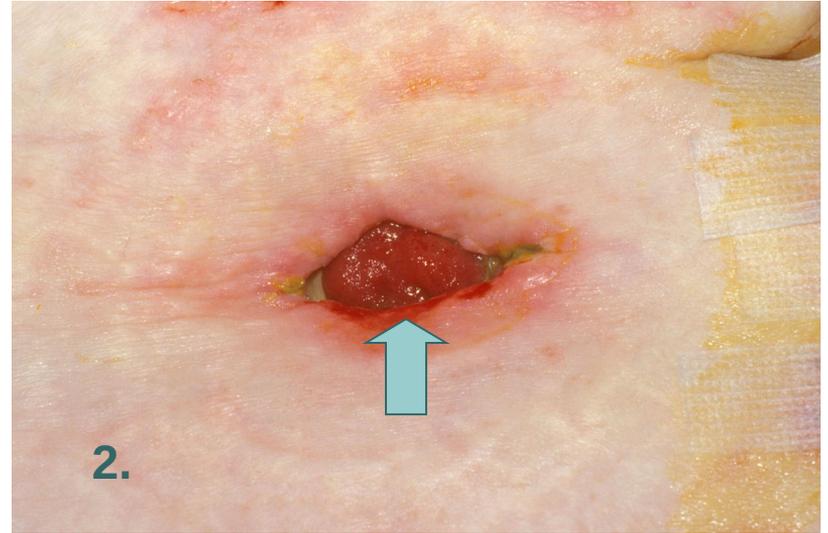
Chemical Irritant Dermatitis

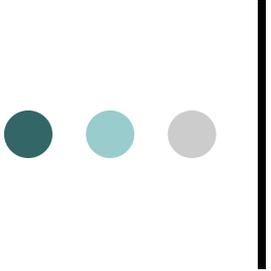




Chemical Irritant Dermatitis: Skin Treatment

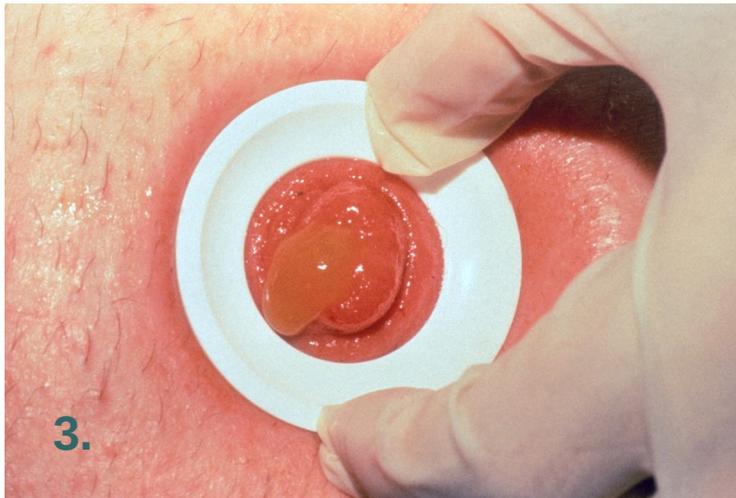
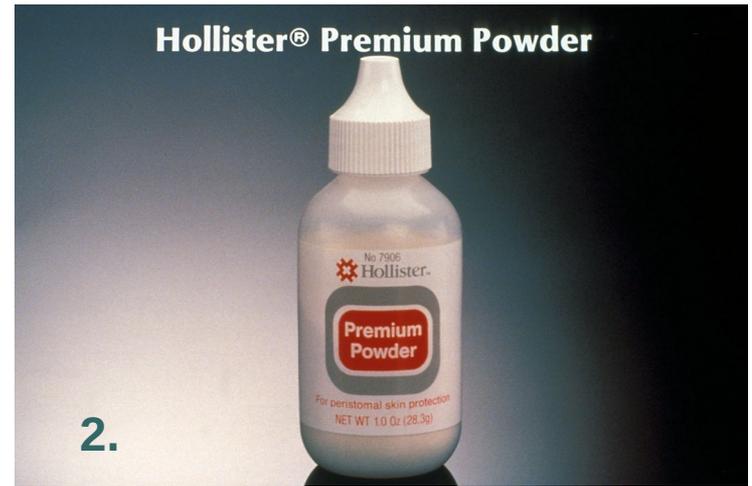
- Treat skin problem
 - Red but not open
 - Protect skin
 - Denuded tissue
 - Dust area with skin barrier powder
 - Refit pouching system
 - Severe
 - Aluminum acetate soaks (Burrow's solution)

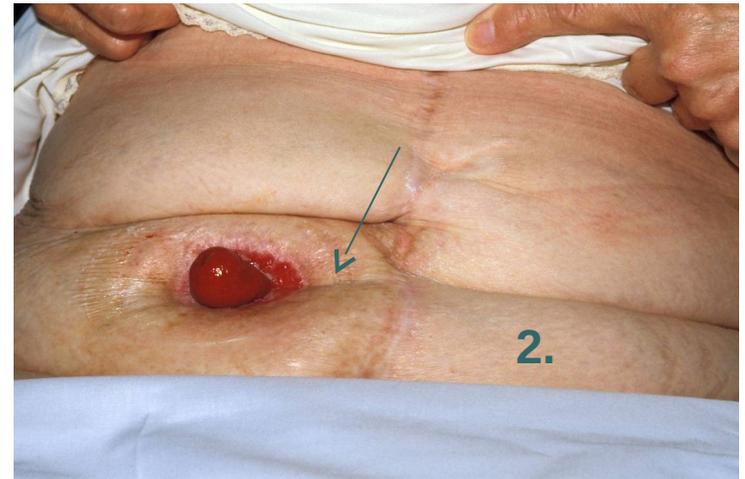


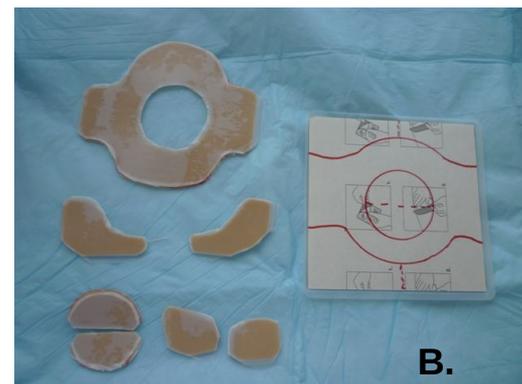


Chemical Irritant Dermatitis

- Use minimum amount of products
- Review product use and techniques
 - Reevaluate pouching system
 - Correct technique as needed
 - Change system rather than “tape a leak”
- Possible short term topical corticosteroid use for reddened skin

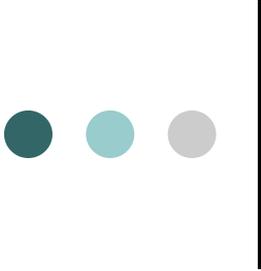












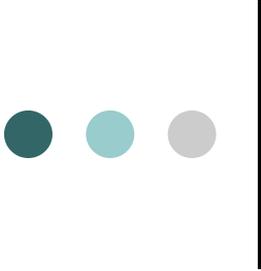
Chemical: Pseudoverrucous Lesions

- Also known as
 - Hydration
 - Maceration
 - Hyperplasia
 - Hyperkeratosis
 - PEH: Pseudoepitheliomatous hyperplasia (biopsy)

Chemical: Pseudoverrucous Lesions

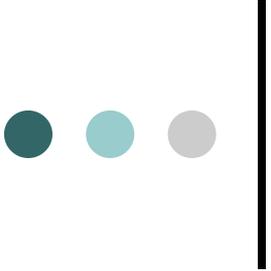


- Definition
 - Chronic irritation from moisture leads to reactive thickening of the epidermis
 - Overgrowth of tissue caused by overexposure to a chronic irritant
 - Result of an improperly fitting pouching system that allows fluid to bathe peristomal skin
 - Microscopic exam shows thickened epidermis, (hyperkeratosis) and acanthosis. No atypia or increased mitosis seen



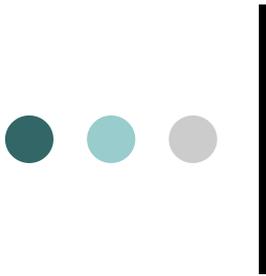
Chemical: Pseudoverrucous Lesions

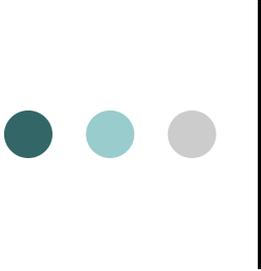
- Clinical features
 - Pain variable
 - May bleed easily
 - Circumferential or partial
 - Localized to area of chronic exposure to effluent
 - Usually gray/white or reddish brown
 - Raised lesion(s) with warty appearance
 - Begin at stoma base and extends outward



Chemical: Pseudoverrucous Lesions

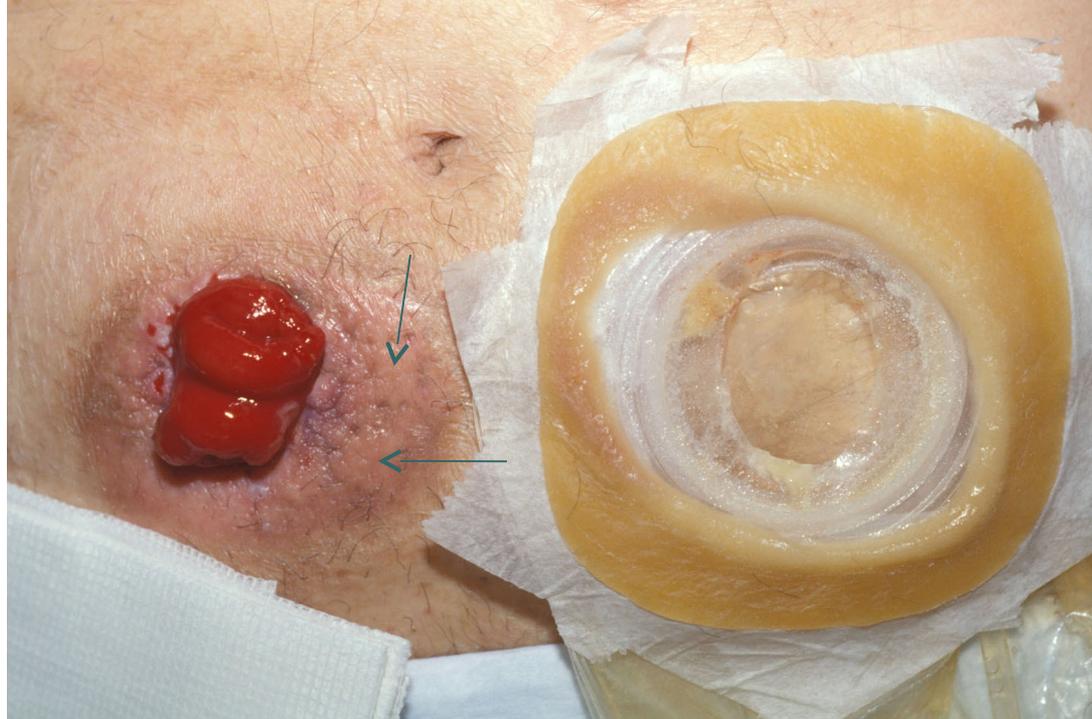
- Causative Factors
 - Improper fit allowing fluid to be “trapped” under system
 - Convexity
 - Aperture size
 - Alkaline urine increases risk



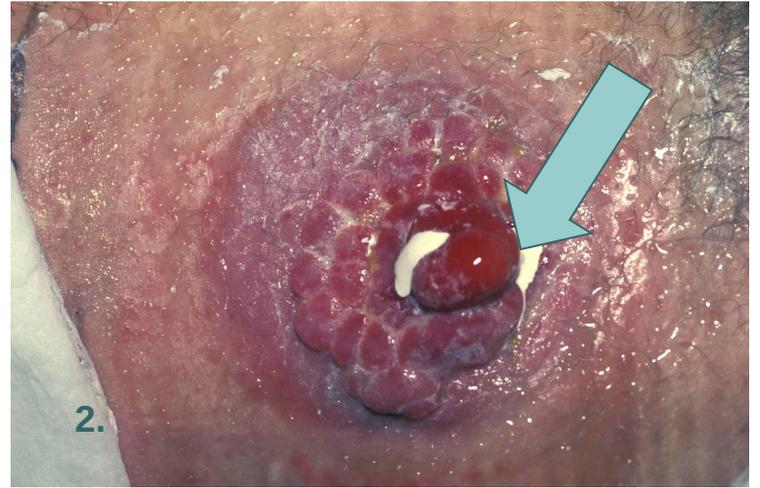


Chemical: Pseudoverrucous lesions

- Treatment
 - Refit equipment
 - Aperture
 - Convexity
 - Shorten wear time as needed
 - Change to long-wearing barriers
 - Appropriate follow-up
- Urinary stomas
 - Correct urine pH
 - Anti-reflux pouch
 - Bedside drainage at night
- In select cases, use of silver nitrate
- Rarely, relocation



Hidden Leak

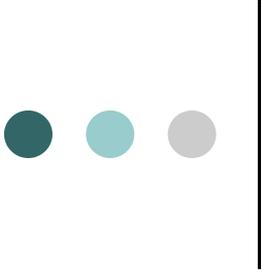


Chemical: Crystals

- Urinary stomas only
 - Look like sugar/salt crystals
- Etiology
 - Poor hygiene
 - Alkaline urine
 - Improper cleansing of equipment
- Composition
 - Ca^{++} , Mg^{++} , and ammonium phosphates
- Treatment
 - Vinegar soaks
 - Increase fluids
 - Refit equipment
 - Urine acidification



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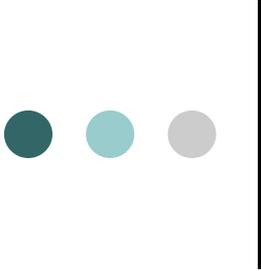
Peristomal Trauma

- Definition
 - Loss of peristomal epidermis secondary to skin trauma
 - Results from an external item causing damage to the skin by compressing it (pressure), lacerating it, stripping the epidermis, or causing friction damage

Peristomal Trauma

- Causative factors
 - Fragile skin
 - Poor pouching techniques
 - Improper use of equipment
- Contributing factors
 - Peristomal hernia
 - Prolapse of stoma
 - Weight gain or loss





Peristomal Trauma

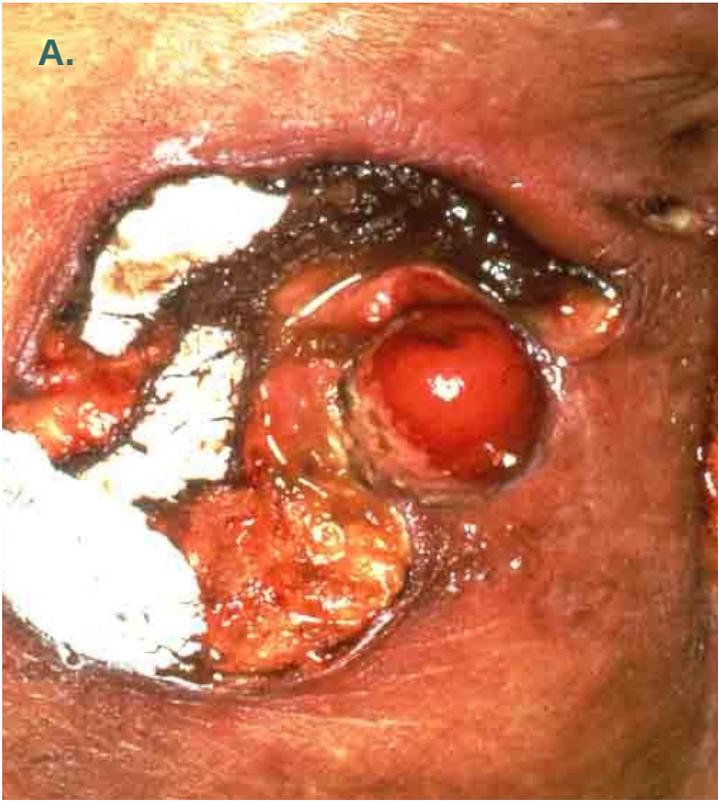
- Clinical Features
 - Usually painful
 - Irregular border to lesions
 - Generally shallow and moist
 - Lacerations, pressure ulcers
 - Erythema, denuded, ulcerated skin
- Mucosal transplantation



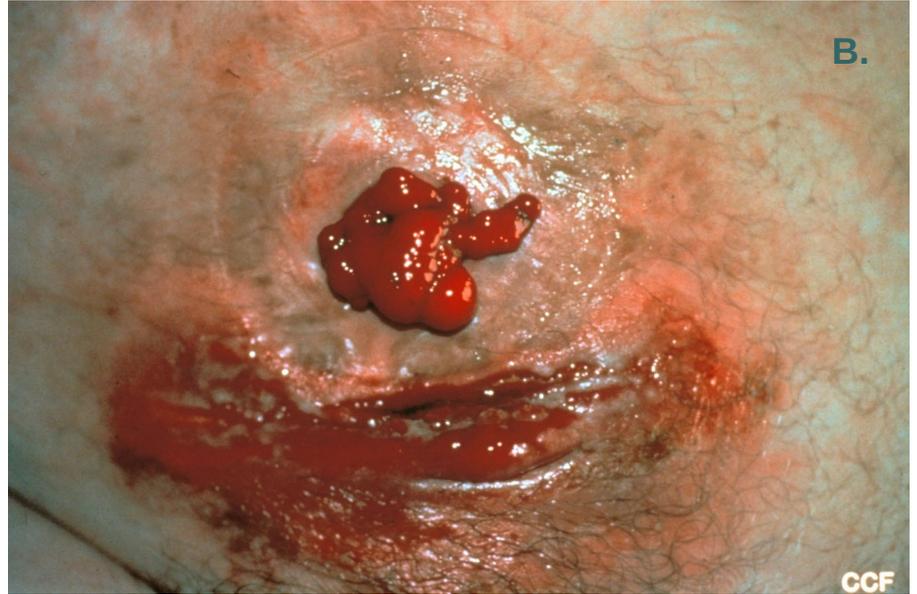




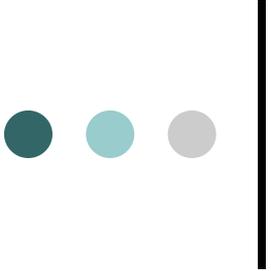
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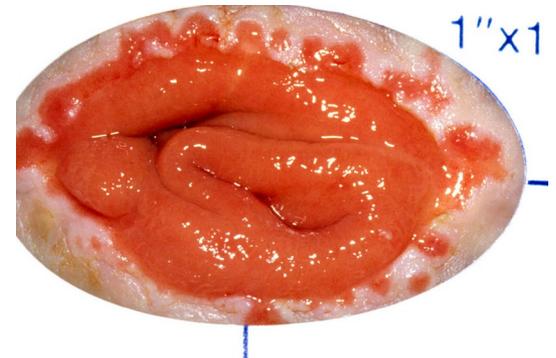


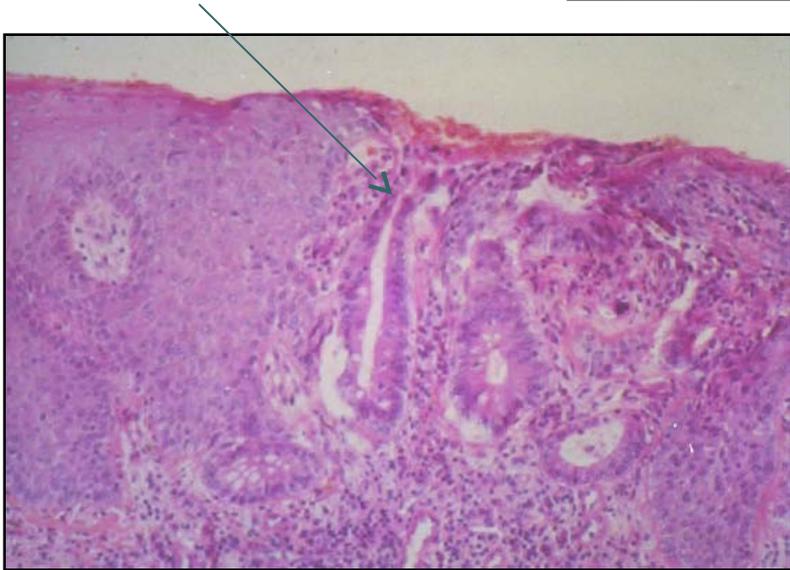
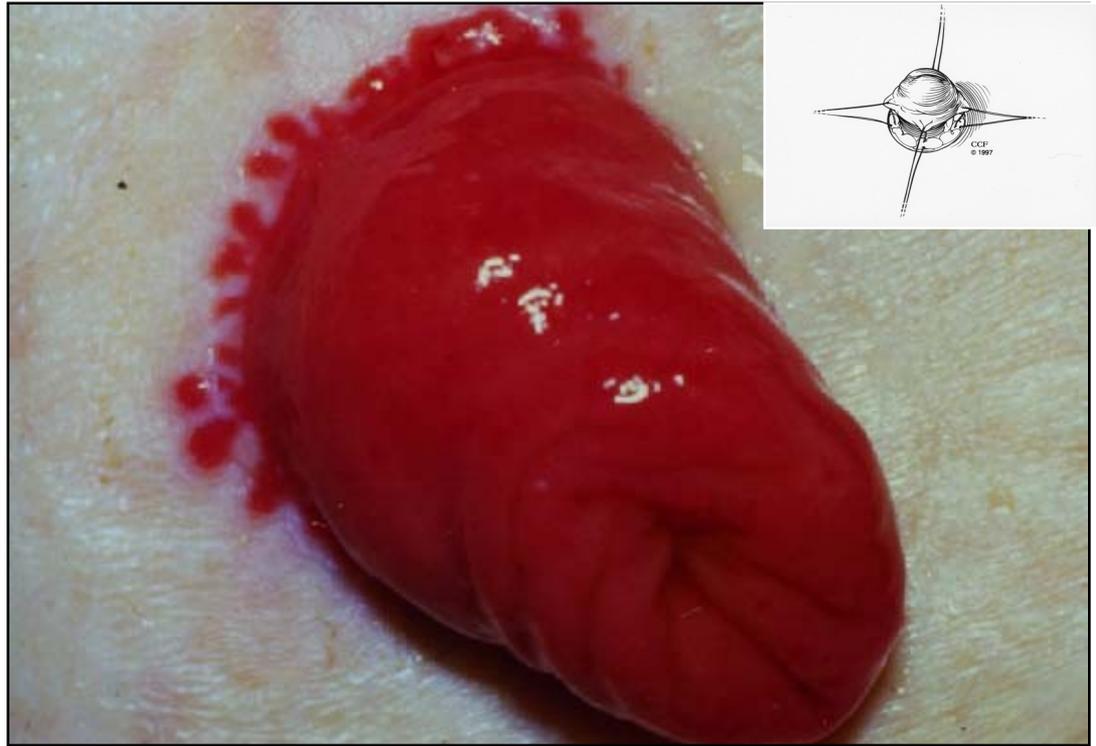
Peristomal Trauma: Interventions

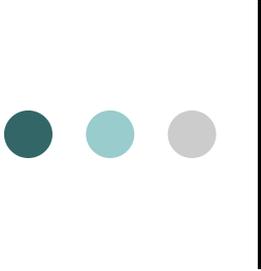
- Find root cause and eliminate it
- Proper fitting of belt
- Refitting of pouching system
- Proper application/removal techniques
 - Use of solvents, warm water
- Avoid everyday changes and “picking” at residue
- Use of skin sealants, powders, barriers as needed

Peristomal Trauma: Mucosal Transplantation

- Transplantation is also known as mucosal implants
- Result from improper suturing through epidermis at time of stoma formation
 - Can cause fitting problems
- Treatment based on severity







Peristomal Trauma: Mucosal Transplantation

- Treatment
 - Proper surgical technique
 - More frequent change
 - Increased aperture and skin protection
 - “Dry” islets using skin barrier powder, silver nitrate, or electric cautery; pouch as usual
 - May require stomal revision +/-relocation