SKIN & WOUND CARE BASICS

2020

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If you have any questions, please contact us here in HLLN at 416 736 2100 X22170 or hlln@yorku.ca. Thank you, Tania Xerri

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ROSEMARY KOHR

BA, BScn, MScN, PhD, RN

Tertiary Care Nurse Practioner Certficate (1998)

San'yas Indigenous Cultural Safety Training Certificate (2015)

Dr. Rosemary Kohr, PhD, RN, is the Program Director (Wound Care and Patient Navigation programs), Health Leadership and Learning Network (HLLN), York University; Adjunct Associate Professor, Faculty of Health Sciences, Western University; and Instructor in the Masters of Health Sciences/Nursing, Athabasca University.

For nearly 2 decades, Dr. Kohr was an Advanced Practice Nurse/ Acute Care Nurse Practitioner and wound care specialist at London Health Sciences Centre (LHSC). Subsequently, she was the Corporate Program Lead for Wound Ostomy Continence with Saint Elizabeth Healthcare, prior to focusing her attention on teaching and consultation.

Dr. Kohr has a keen interest in improving care delivery across the continuum. Hands-on, clinically focused education for healthcare professionals is central to Dr. Kohr's work. She has travelled across Canada to deliver courses for physicians and nurses; and for the past 5 years, through HLLN at York University, the wound care (Level 1 and 2) courses have provided participants with a simple, standardized approach to dressing selection and best practice in wound prevention and treatment.

With a background in Mental Health (APN, Consultation-Liaison Psychiatry, LHSC) as well as years working the patients and their families from acute care to community environments, she developed and currently facilitates the Patient Navigation program offered through HLLN at York University. As well, much of her work has been informed by her role as subject-matter expert/consultant for government projects in Nova Scotia, Ontario and British Columbia for system-wide wound care revisions as well as consulting on development and implementation of Patient Navigation systems in Ontario.

Dr. Kohr has worked with First Nations/indigenous health centres and clients, to improve patient outcomes. In 2015, she completed the San'yas Indigenous Cultural Safety Training Certificate (Provincial Health Services Authority, British Columbia); and has created and delivered custom courses for First Nations healthcare providers.

Dr. Kohr is one of the founding members of the Ontario Wound Interest Group (ONTWIG). She was Co-Chair of the Seniors Health Knowledge Network group, developing the My Skin Health Passport for Older Adults. For six years, Dr. Kohr was on the Executive (including as President) of the Canadian Association of Advanced Practice Nurses.

Dr. Kohr has presented at over 70 national and international healthcare conferences, and published numerous articles in peer-reviewed journals. She is the author/editor of the Skin and Wound Chapter, Potter & Perry Canadian Edition of Fundamentals of Nursing, and the first Canadian Edition of Perry, Potter & Ostendorf Clinical Nursing Skills and Techniques. Dr. Kohr's PhD thesis, Hearts, hands and minds: The nurse's experience of changing a dressing, is available through the University of Alberta library e-holdings.

Dr. Kohr is a Registered Nurse, and member of the Registered Nurses' Association of Ontario (RNAO).

She can be reached at kohrconsulting@gmail.com

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SKIN AND WOUND CARE BASICS FOR PERSONAL SUPPORT WORKERS (PSWs):

Dr. Rosemary Kohr, RN, PhD,
Tertiary Care Nurse Practitioner Certificate (TCNPC)

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Welcome!

- A few housekeeping items before we get started...
- On-line with Zoom
- Agenda
- Ground-rules

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Zoom orientation

- I hope you have read the information from HLLN (York University) on how to use Zoom.
- At the start, your audio will be automatically muted– but you can unmute (see the microphone icon)
  - I will do a Roll-call, so you can **unmute** or post (**chat**)for that.
- **Video**: remember, we can SEE you and what you are doing! My preference is that you to keep your video ON– you will see all the participants arranged in a gallery/tile across the top of the screen.
- The **Chat** function: you can post to the whole group or to me privately, as the HOST. Feel free to ask questions via chat/text.

OUTLINE of Lessons:

Lesson 1	•Overview of Skin function & skin health
Lesson 2	• Risk and Prevention of skin breakdown (focus on elderly)
Lesson 3	•"Back to basics" (management)
Lesson 4	•Skin Tears and Pressure Injury/Ulcers (Bedsores)
Lesson 5	•Chronic wounds (diabetic foot ulcers, venous leg ulcers, etc)
Lesson 6	•Types of dressings/use
	• Documentation and communication re: skin/wound care
	• Wrap up

Ground-rules

- Conduct Policy:
  - Every course through Health Leadership & Learning, York University (on or off-campus/non-degree or non-credit) follows the York University **Code of Student Conduct and Responsibilities.**
  - Students (participants) are expected to maintain a professional relationship characterized by courtesy and mutual respect.
- This includes:
  - the responsibility to behave in a way that does not harm or threaten to harm another person's physical or mental wellbeing
  - the responsibility to uphold an atmosphere of civility, honesty, equity and respect for others, thereby valuing the inherent diversity in our community.
  - the responsibility to consider and respect the perspectives and ideas of others, even when you do not agree with their perspectives or ideas.
- **HLLN reserves the right to remove any student who violates our conduct policy.**

My Objectives for this course:

- Provide you with information/tools to be able to prevent skin breakdown in your resident population
- Know when to contact the nurse re: skin breakdown
- The types of common wounds and prevention strategies
- Types of dressings and how to identify when the nurse should re-assess
- Basically, giving you the confidence to help provide the best care for your residents.

Introductions:

- A bit about me, a bit about you:
- Background?
- Goals?

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Who are your Residents?

- Age?
- Mobility?
- Continence?
- Nutrition/hydration?
- Mental status (cognition)?
- Activity level?

POLL

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Lesson 1: Aging Skin

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Anatomy & Physiology *of the Skin*

Facts About The Skin

- Body's largest organ
- Covers approximately 3000 square inches
- Expands seven times over a lifetime
- Weighs six pounds or 20% of body weight
- 3 to 100 cells thick
- Thinnest in the Tympanic Membrane (in the ear)
- Thickest on the soles and palms
- Capable of regulating itself (temperature) and self-regeneration

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Skin Function: the body's front line of defense.

- Protection from bacteria, chemicals, Ultraviolet rays, water
- Vitamin D synthesis
- Heat Regulation
- Insulation
- Communication through sensation.
- Holds everything together.

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Skin Layers

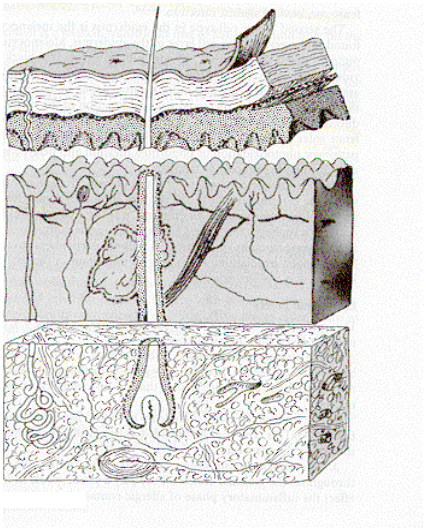
Three layers all attached.

Epidermis: the keratinocytes.

Dermis: the vasculature, sweat glands

Subcutaneous layer.

- Epidermis
- Dermis
- Subcutis



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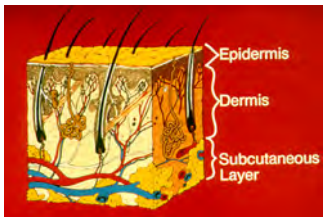

EPIDERMIS

- Outermost protective skin layer
- Formed by the continuous upward migration of k*eratinocytes*
- *Takes about I months to migrate to surface*
- 3 to 100 cells thick
- Avascular layer (no blood supply)

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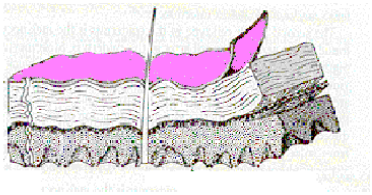
Epidermis

Stratum Corneum:

- Dead skin cells create a protective barrier
- Abraded daily by mechanical and chemical trauma (normal exfoliation)
- Composed of keratinocytes, melanocytes and lipids (fats and oils)
- Keratin and lipids maintain moisture levels

The Acid Mantle:

Protects & helps slow bacterial growth



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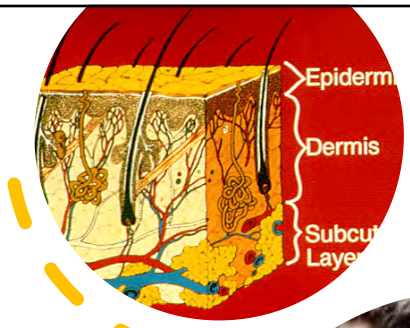
Dermis

- Contains endocrine glands (sweat ducts), hair follicles, blood vessels, lymphatics and nerves
- Adipose tissue (layer of fat) provides energy, insulation and pressure distribution
- Vascularity provides heat exchange, nutrition and inflammatory response
- Skin is sometimes called the “third kidney”



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What happens **to the skin** as a person gets older?

- Increased dryness
- Easy bruising
- Slower healing
- Often feel chilly (thermoregulatory changes)
- Wrinkles (depends on sun/smoking/genetics)
- Skin cancer/pre-cancer (depends on sun/environment/genetics)

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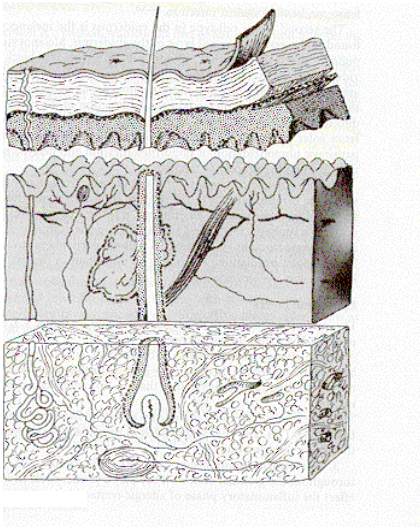
Aging Skin:

- Further Changes:
  - Thinning of attachments
  - Decreased elasticity
  - Decreased Vitamin D synthesis
  - Impaired sensory perception
  - Decreased sweating and sebum production



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Incontinence And Aged Skin

- Excess moisture and bacteria.
- Macerated (wet) skin requires less friction to cause damage

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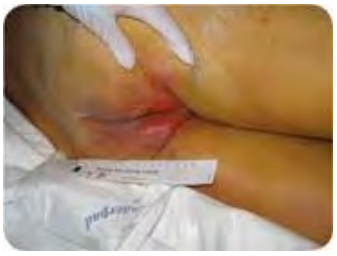
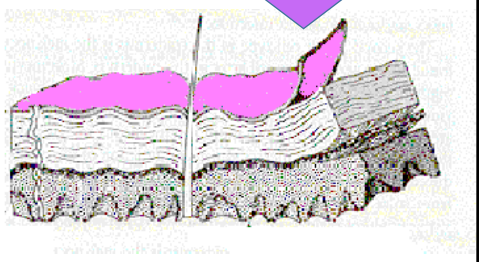
Incontinence And Aged Skin

- Urea in urine is turned into ammonia
- This results in a high pH (alkaline)
- **Acid mantle** is now alkaline and cannot function
- If feces are present, digestive enzymes can be activated
- The barrier function of the skin can be overwhelmed





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So How do You Clean Skin?

- Dealing with hygiene, incontinence… Cleaning peri-area when continence brief is changed
- Bar soaps are alkaline (the "neutral/sensitive skin" soaps are the least alkaline)
- Bar Soap therefore reduces the normal acid mantle, resulting in **dry skin that is more prone to infections**
- Washcloths, are often rough and can result in friction injuries
- **Think about a body wash and a method to wash the skin that reduces friction**

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No more rough washcloths

ALTERNATIVES (examples):

POLL: What do you use in your organization?

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Moisture has to be just right!

Skin that is too wet is 5 times more likely to break down (macerate) than dry skin

Skin that is too dry is 2.5 more likely to break down than normal skin

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Lesson 2: Skin Care Products What to choose?

Look for clinical evidence

Goal should be to support normal skin functioning

Look for:

- **Sensitizers** such as lanolin, perfumes & **AVOID THEM!**
- pH of 4 -7
- Ingredients that support skin functioning

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Barriers

- Goal is to increase the barrier function of the skin
- Formulations: Ointments, creams or films
- Petrolatum and **Zinc** are common → **removal requires mineral oil**
- Dimethicone (silicone) more popular now
- **Some ointments or creams can reduce the effectiveness of incontinence products**
- Liquid films (No Sting, Skin Prep)

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Moisturizers

- **Occlusives, Emollients or Humectants**
- Goal is to support well hydrated skin
- Occlusives: prevent moisture loss,
- Emollients: add moisture,
- Humectants: drawing moisture from the environment

- Petroleum jelly (Vaseline) is the most effective occlusive but is greasy (apply immediately after bathing)

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Perineal Cleansers

- The goal should be to remove feces, maintaining a normal pH and deal with odour
- Consider a product with a surfactant that is pH balanced
- Odour Control
- Consider a “no rinse” formula

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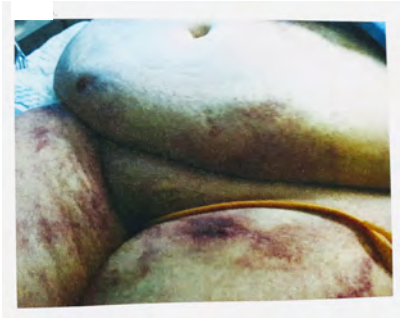
Skin Assessment:

- **Accurate history**
- **Asses skin turgor** (adequate moisture)
- **Skin should feel warm and dry**

•Remember to assess any are of skin that is hiding from the obvious:

- Skin folds, creases, under breasts, abdominal pannus, behind the ears
- Lower legs, feet, between the toes
- Perineal and perianal areas
- Around joints and over bony prominences
- Around braces, casts, orthodics and prosthetic devices



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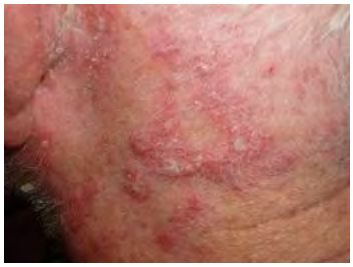
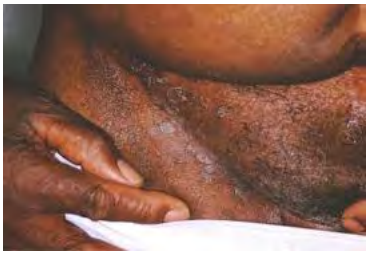
Other issues: Fungal Infection



- Red flakey irritated skin
- Satellite lesions
- Skin folds



- Treat the underlying cause (always);
- Keep the area dry
- Avoid talcum powder
- Can use clotrimazole
- Wick moisture away (e.g., InterdryAG)

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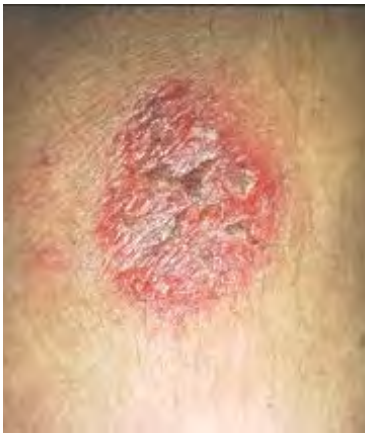
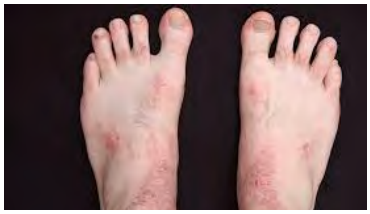
Eczema





- Itchy, scaly, leathery, bumpy, red
- Anywhere on the body

- Minimize itching with moisturizers
- Talk to the RN:

Low-dose Over the counter hydrocortisone (for short time only)

- If persistent, or symptoms are problematic, talk with the nurse or doctor

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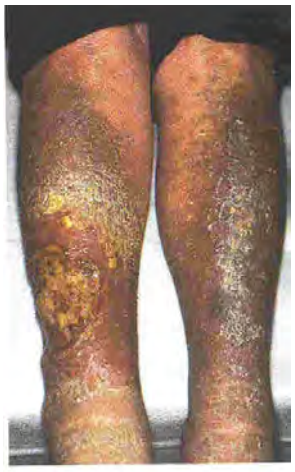
What to do here?



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Lesson 3: Back to Basics: What your residents need:

- Risk Assessment
- Every Resident has excellent skin care
- Full attention to nutrition and hydration
- Every mattress and wheelchair cushion is at least pressure reduction (e.g., high density foam)

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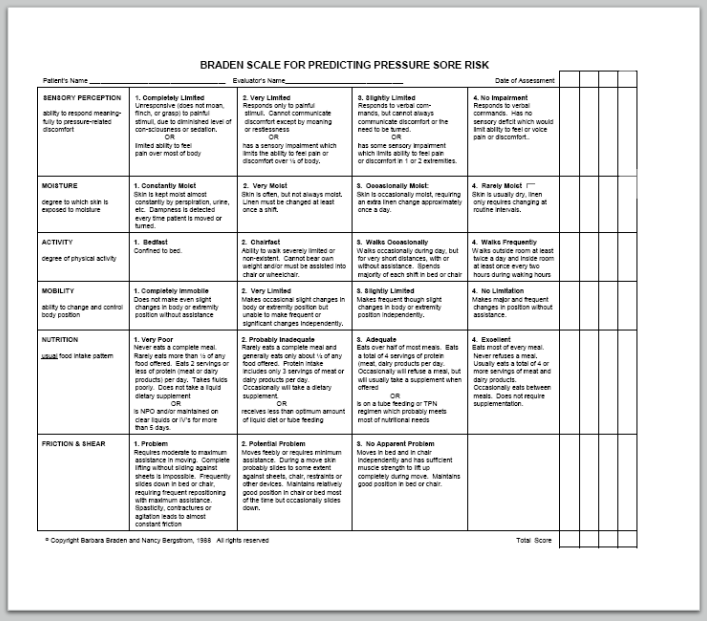
Risk Assessment and Interventions

- Braden Risk Assessment Tool:
  - Sensory Perception
  - Moisture
  - Activity (e.g., bedfast, etc)
  - Mobility (move independently)
  - Nutrition
  - Friction/Shear
  - Existing Pressure Injury



BRADEN SCALE FOR PREDICTING PRESSURE SORE RISK

Patient's Name _____ Evaluator's Name_____ Date of Assessment

SENSORY PERCEPTION ability to respond meaningfully to pressure-related discomfort	**1. Completely Limited** Unresponsive (does not moan, flinch, or grasp to painful stimuli, due to diminished level of consciousness or sedation. OR limited ability to feel pain over most of body	**2. Very Limited** Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness OR has a sensory impairment which limits the ability to feel pain or discomfort over ½ of body.	**3. Slightly Limited** Responds to verbal commands, but cannot always communicate discomfort or the need to be turned. OR has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.	**4. No Impairment** Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort.				
MOISTURE degree to which skin is exposed to moisture	**1. Constantly Moist** Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	**2. Very Moist** Skin is often, but not always moist. Linen must be changed at least once a shift.	**3. Occasionally Moist** Skin is occasionally moist, requiring an extra linen change approximately once a day.	**4. Rarely Moist** Skin is usually dry, linen only requires changing at routine intervals.				
ACTIVITY degree of physical activity	**1. Bedfast** Confined to bed.	**2. Chairfast** Ability to walk severely limited or non-existent. Cannot bear own weight and/or must be assisted into chair or wheelchair.	**3. Walks Occasionally** Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair	**4. Walks Frequently** Walks outside room at least twice a day and inside room at least once every two hours during waking hours				
MOBILITY ability to change and control body position	**1. Completely Immobile** Does not make even slight changes in body or extremity position without assistance	**2. Very Limited** Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	**3. Slightly Limited** Makes frequent though slight changes in body or extremity position independently.	**4. No Limitation** Makes major and frequent changes in position without assistance.				
NUTRITION usual food intake pattern	**1. Very Poor** Never eats a complete meal. Rarely eats more than ⅓ of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement OR is NPO and/or maintained on clear liquids or IV's for more than 5 days.	**2. Probably Inadequate** Rarely eats a complete meal and generally eats only about ½ of any food offered. Protein intake includes only 3 servings of meat or daily products per day. Occasionally will take a dietary supplement. OR receives less than optimum amount of liquid diet or tube feeding	**3. Adequate** Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) per day. Occasionally will refuse a meal, but will usually take a supplement when offered OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs	**4. Excellent** Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.				
FRICTION & SHEAR	**1. Problem** Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation leads to almost constant friction	**2. Potential Problem** Moves feebly or requires minimum assistance. During a move skin probably slides to some extent against sheets, chair, restraints or other devices. Maintains relatively good position in chair or bed most of the time but occasionally slides down.	**3. No Apparent Problem** Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair.					
				Total Score				

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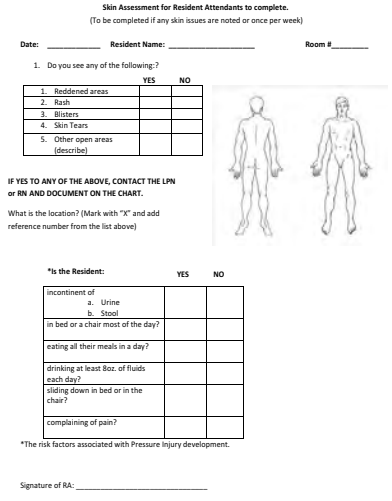
Skin Assessment Tool for PSWs

- To be completed after daily care
- Any issue identified, contact LPN or RN
- **Just using the assessment tool significantly decreases the potential for skin breakdown (by 60%)**



Skin Assessment for Resident Attendants to complete.

(To be completed if any skin issues are noted or once per week)

Date: _____ **Resident Name:** _____ **Room #**_____

1. Do you see any of the following:?

	YES	NO
1. Reddened areas		
2. Rash		
3. Blisters		
4. Skin Tears		
5. Other open areas (describe)		

IF YES TO ANY OF THE ABOVE, CONTACT THE LPN or RN AND DOCUMENT ON THE CHART.

What is the location? (Mark with "X" and add reference number from the list above)

***Is the Resident:**

	YES	NO
incontinent of a. Urine b. Stool		
in bed or a chair most of the day?		
eating all their meals in a day?		
drinking at least 8oz. of fluids each day?		
sliding down in bed or in the chair?		
complaining of pain?		

*The risk factors associated with Pressure Injury development.

Signature of RA: _____

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Use of a Risk Assessment Tool and simple interventions:

- reduce the incidence of **nosocomial*** pressure injury by 40-60%.
- reduce the severity of nosocomial pressure injury
- reduce the cost of care by decreasing the inappropriate use of specialty beds
- reduce the cost of care by avoiding the excess hospital days associated with the complication of nosocomial pressure injury

**Nosocomial : hospital/institution-acquired*

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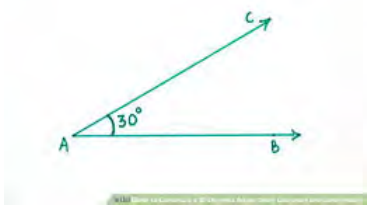
Assess risk….
And do something about it.



- **SENSORY PERCEPTION:**
  - Reposition/turn;
  - 30 degree rule
  - Pressure reduction surfaces
  - Protect heels
  - Foam wedges

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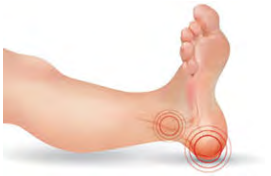

Let's talk about heels...

POLL: what do you have available to use in your organization to keep heel pressure off?

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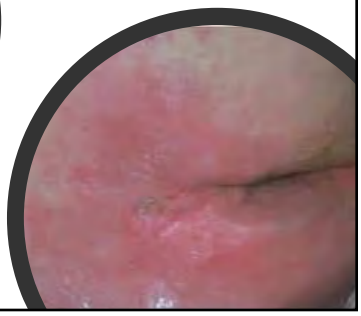
Assess risk…. **Moisture** And do something about it.

- Assess cause of incontinence
- Use RNAO BPG continence/constipation for recommendations
- Use appropriate continence products
  - Correct SIZE for patient/resident
- Appropriate soaps, barrier creams, etc.
- Diaphoresis (excessive sweating): cause– fever, medication or ?



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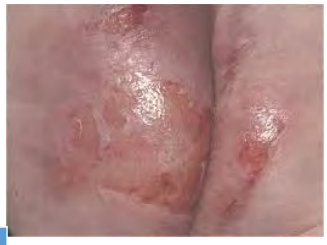
Moisture: Incontinence-Associated Dermatitis



Characteristics	Incontinence-Associated Dermatitis	Pressure Injury
Location	Often in Skin folds Diffuse	Usually over bony prominence; Well defined
Colour	Red or bright red	Red to bluish/purple
Depth	Intact skin to partial-thickness wound	Intact skin to partial or full-thickness wound
Necrosis (Black tissue)	None	May be present
Pain & itching	May be present	Generally not present

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Assess risk…. And do something about it.

ACTIVITY/MOBILITY:

- **Assess tolerance for activity/mobility**
- Re-mobilize, involve OT, PT
- Range of motion: passive/active

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Assess risk….
And do something about it.

- **NUTRITION:**
  - Major factor in prevention of skin breakdown.
  - "Dietitian to assess"
  - Swallowing assessment may be needed
  - Fluid intake important (water)
  - Provide adequate caloric intake
    - Supplements such as Ensure, Resource, etc
    - Assistance with eating
    - Dentures that fit

Good Nutrition

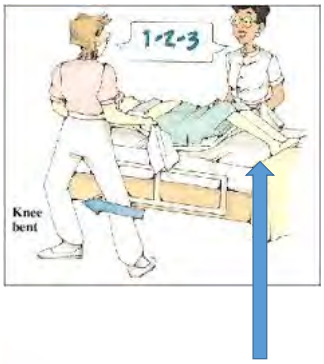
- Important part of a resident's Rx.
- Make mealtimes pleasant
- Time for social interactions
- Allows time to eat with others
- Eat alone? = poor appetite
- LTC-Long term care facilities- encourage eating in dining room

Resident confined to bed

- Bedridden?
- Sit down in CHAIR (Not the Bed!) to feed the resident
- TALK to the resident!
- Eat/Feed resident while food is hot; as soon as it arrives to floor

Assess risk….
And do something about it.

- **FRICTION & SHEAR:**
  - Use good body mechanics to move
  - Lift sheet (and lift, not slide)
  - Protect fragile skin (elbows, knees, heels)
  - Teach paraplegic individuals to lift when shifting from bed/chair



WATCH THOSE HEELS!!
DON'T DRAG!!

How to Use a Slide Board

How often should we check?

- Helping the resident get dressed/go to bed
- At Bath-time
- Changing continence briefs/cleansing perineal area
- IF any change in condition (e.g., agitated, more sleepy, diarrhea, etc)
- Any change in medication
- When else?

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Summary

- Skin care requires attention to **moisture and pressure**
- Know your patient/resident risk factors for skin breakdown
- Assess your residents' skin on a regular (daily) basis
- Work with your team (RN/RPN, etc) to activate a plan of care to prevent skin breakdown
- Keep a close eye on those risk factors: incontinence, not mobile, not eating enough, not drinking enough water...

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Lesson 4: Skin tears, bedsores and other things...

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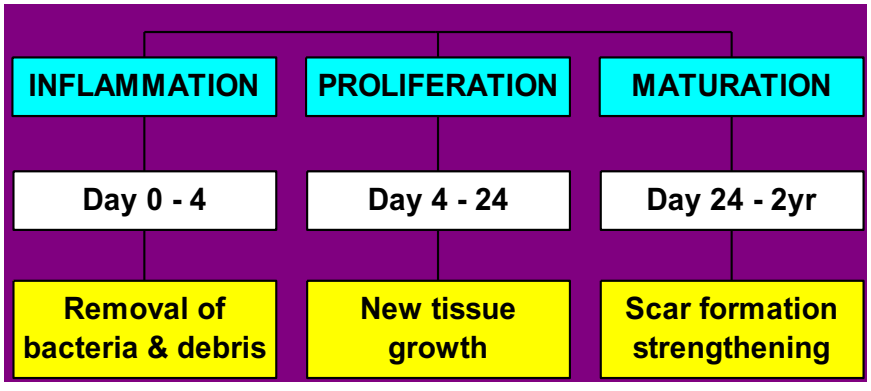
Three Phases of Wound Healing



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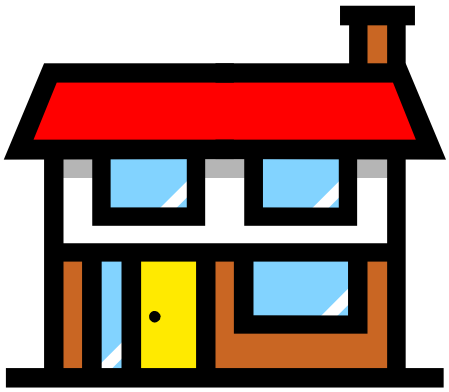
Damaged House Analogy



- **Hemostasis**/Utility Workers
- **Inflammation**/Non-skilled Laborers & Contractor
- **Granulation**/Framers & Skilled workmen (plumber, electrician, etc)
- **Maturation**/Interior finishing & landscaping

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Why wounds don't heal:

Absorption?

- Moisture (too dry/too wet)

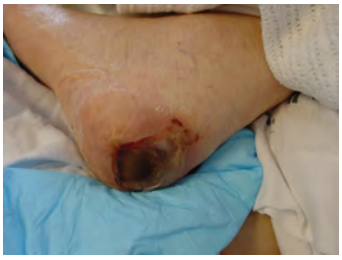
Bacteria?

- Infection

Crust/crap?

- Necrotic/sloughy tissue

Crust/crap?



And...

- Repeated trauma (wet-to-dry dressings)
- Pressure
- Dressing selection

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Other things affecting healing:

- Age
- Decreased oxygen supply
- Malnourished
- Compromised immune system
- Diabetes
- Cancer
- Other infection

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Think about the residents/patients at your work-place. How many of these issues do they have? POLL

- Pressure
- Moisture
- Immobility
- Nutritional/fluid deficits
- Chronic illness (e.g., diabetes)
- Aging process

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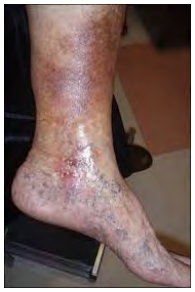
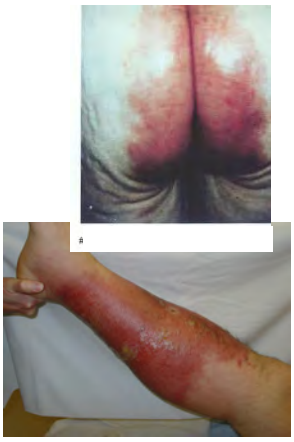
CONTRIBUTING FACTORS TO SKIN BREAKDOWN:

- Chemicals and enzymes (urine, feces)
- Circulatory problems
- Bacteria
- Allergic reaction
- Radiation damage





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Pressure Injuries: Development, prevention and treatment

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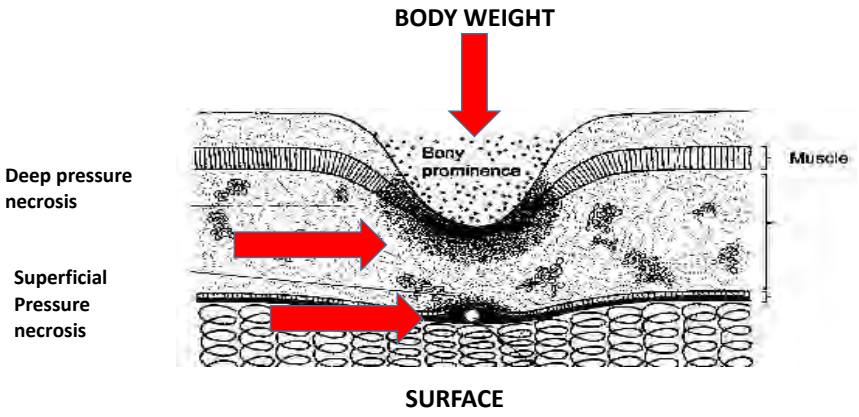
Development of a Pressure Injury



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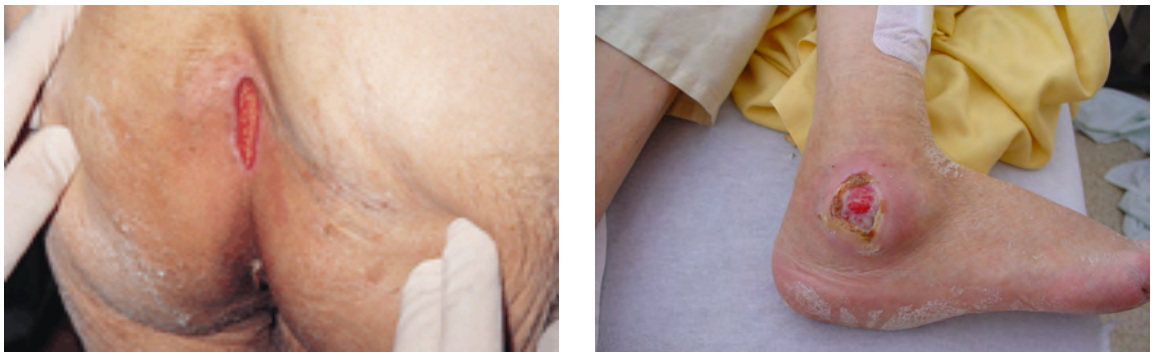

Check pressure point locations
(hidden and visible)

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Pressure Injury Development

Unable to weight shift/move

↓

Prolonged/unrelieved pressure over a bony prominence

↓

PRESSURE INJURY DEVELOPMENT

Discussion:

- Situations in your clinical setting where patient's skin breakdown/pressure injury might occur:
- What is currently in place to manage skin breakdown?
- What could be done differently to address skin breakdown?

Factors contributing to skin breakdown/pressure injury as a result of wheelchair sitting:

Equipment factors:

- Ill-fitting (size) of wheelchair
- Condition of wheelchair and seating
- Incorrectly set up equipment
- Inappropriate seating equipment

Patient factors:

- Poor postural alignment
- Inability to weight shift/extended periods of sitting
- Poor placement in wheelchair
- Comfort
- Balance & stability for functional activities
- Patient adherence

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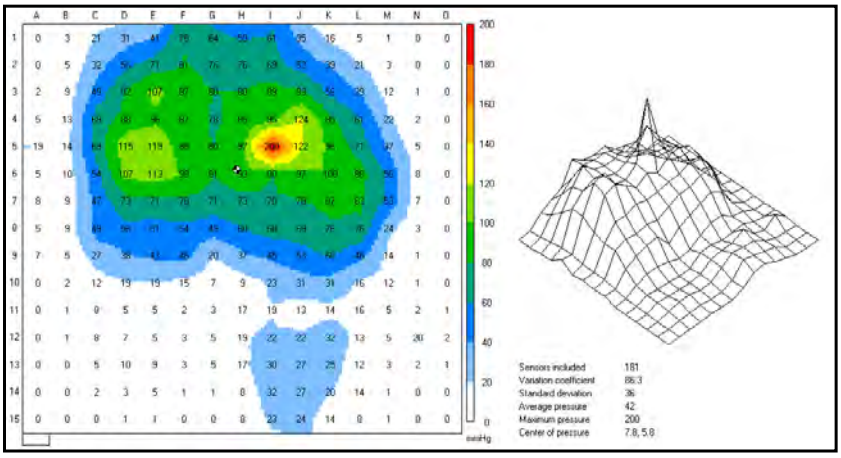
PRESSURE MAPPING: An Educational Tool



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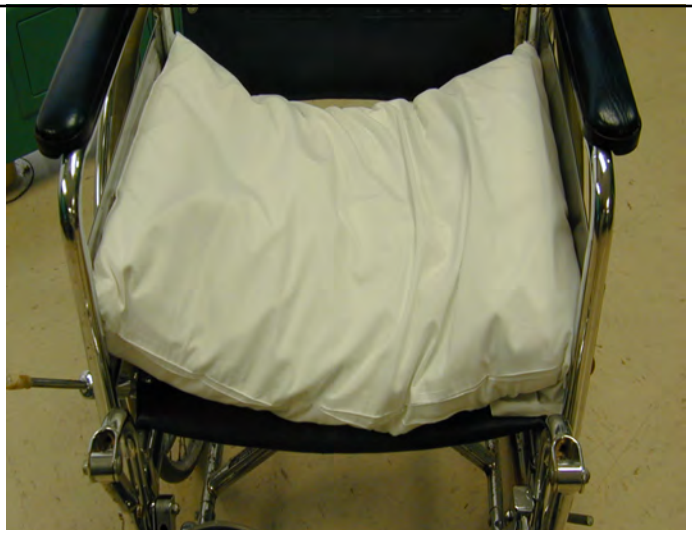
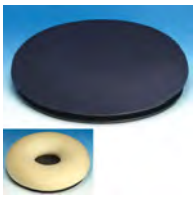


Seating: What's wrong here?

CUSHIONS: WHAT TO KEEP IN MIND

ARTIFICIAL SHEEPSKIN DOES **not** PROVIDE PRESSURE RELIEF!

- Orientation is critical-upside down, sideways or backwards.
- Artificial Sheepskin or folded bed linens or towels should be avoided.
- Products do not last forever-foam may become friable, gel may lose resiliency.
- Inflation of air cushions is critical.



GEL CUSHION

NO DONUTS, PLEASE!

EHOB Cushion

ROHO CUSHION

PRESSURE RELIEF SURFACES ARE IMPORTANT.

Geri-chairs & Lifts

Geri chair:

- Vinyl upholstery on seat and back for hygiene and maintenance
- Require set up for individual users
- Tilt/recline feature
- Recline not always appropriate
- Difficult to integrate commercial back supports and cushions
- Poor pressure distribution
- Difficult to push
- Uncomfortable

Mechanical Lifts:

- Improves safety for both patient and care provider
- Relatively easy to use
- Particular benefit with individuals who are unable to assist with transfers (e.g., bed to chair) or larger patients
- **Care must be taken to avoid pressure injuries**

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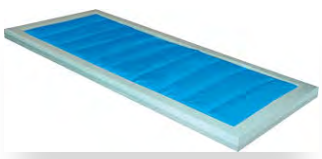

Beds/mattress: Depends on patient's need

Types of surfaces:

- Standard mattress/surface should have high density foam core (viscoelastic foam)
- Overlays (e.g., gel)
- Low Air Loss (LAL)
- Alternating Pressure
- Air Fluidized

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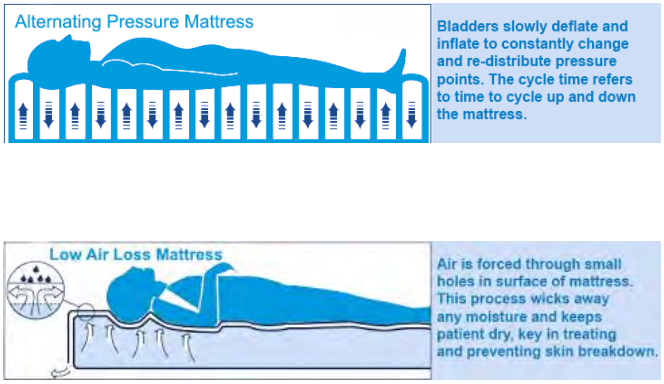
Use of Air in Bed Surfaces:

- **Air Fluidized Therapy (AFT)** provides excellent pressure redistribution and moisture management for complex wounds by creating a "bead bath". An immersive environment is created by blowing air under a thick layer of silicone beads, giving the patient an ideal healing environment.



Consider the patient…

- Prevention of skin breakdown
  - Pressure redistribution
  - Turning schedule (2-4 hours)
  - Heels 'floating' off the bed
  - Moisture management
  - Nutrition
- Characteristics of the wound
  - What type of surface is of most benefit?
- Type of patient:
  - Bariatric (how big is BIG?)
  - "tea & toaster"
- Mobility:
  - Firm perimeter (assists in getting out of bed)
  - Turn assist
  - Trapeze access (bariatric bed)

Knowledge of how the equipment works:

Wheelchairs and geri-chairs:

- Adjustable height armrests
- Footrest hangers
- Laptrays
- Use of tilt

Bed surface functions: IS THERE A MOTOR TO TURN ON?

- Heel relief
- Surface requirements (eg, no sheets, specialty pads)
- Pulsation
- Turn-assist
- Air-fluidized
- Gel

- Observation of condition of equipment
  - Maintenance/cleaning
  - Cushion orientation/condition

Staging: ONLY for Pressure Injury

Pressure injury staging demo with grapefruit

National Pressure Ulcer Advisory Panel (NPUAP) Staging System – 2016 Update

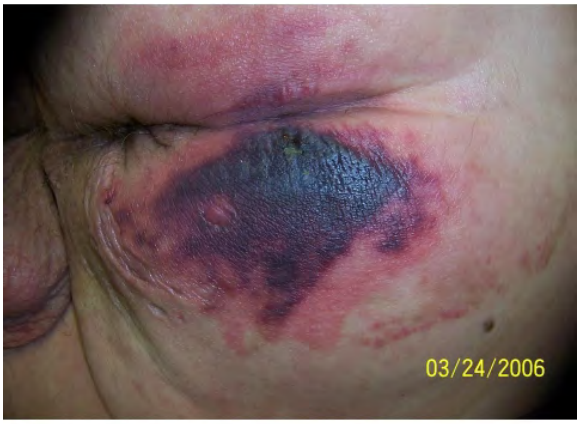
Definition: A pressure injury is a localized injury to the skin and/or underlying tissue, usually over a bony prominence, as a result of pressure, or pressure in combination with shear and/or friction.

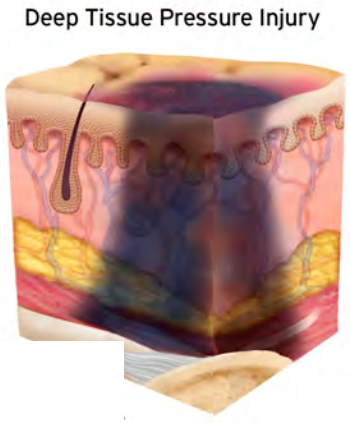
PRESSURE (ULCER) INJURY STAGES

Deep Tissue Injury (DTI)
Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissues.

Further description:
Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid, exposing additional layers of tissue even with optimal treatment.

Deep Tissue Injury





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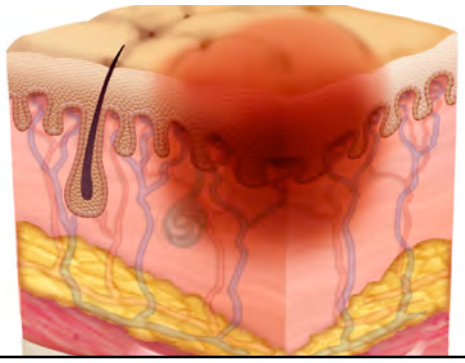
Staging: PRESSURE injury/wounds ONLY

Stage I

- Intact skin with non-blanchable redness of a localized area, usually over a bony
- prominence. Darkly pigmented skin may not have a visible blanching; its color
- may differ from the surrounding area.

- *Further description:*
- The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue.
- Stage I may be difficult to detect in individuals with dark skin tones. May indicate "at risk"
- persons (a heralding sign of risk).



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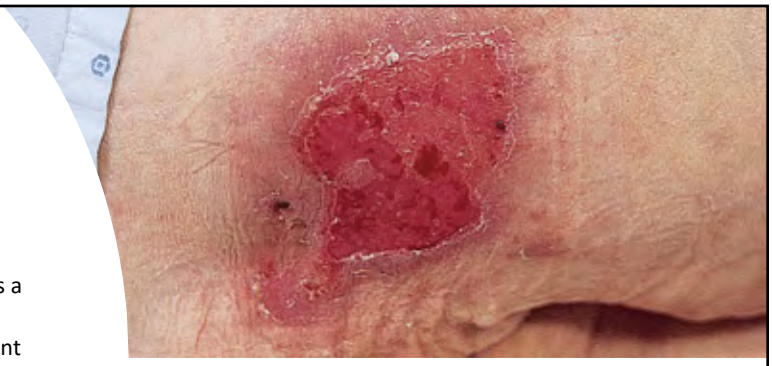
National Pressure Ulcer Advisory Panel (NPUAP) Staging System – 2016 Update

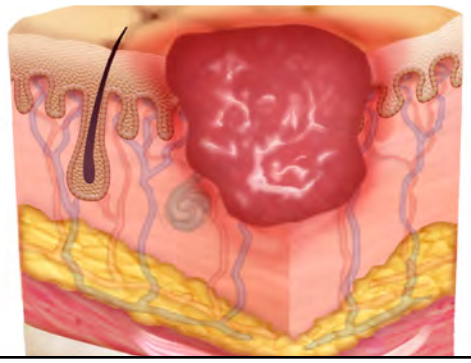


Stage II

- Partial-thickness loss of dermis presenting as a shallow open ulcer with a red pink
- wound bed, without slough. May also present as an intact or open/ruptured
- serum-filled blister.

- *Further description:*
- Presents as a shiny or dry shallow ulcer without slough or bruising*. This stage should not be
- used to describe skin tears, tape burns, perineal dermatitis, maceration, or denudement.

- *Bruising indicating suspected deep tissue injury.



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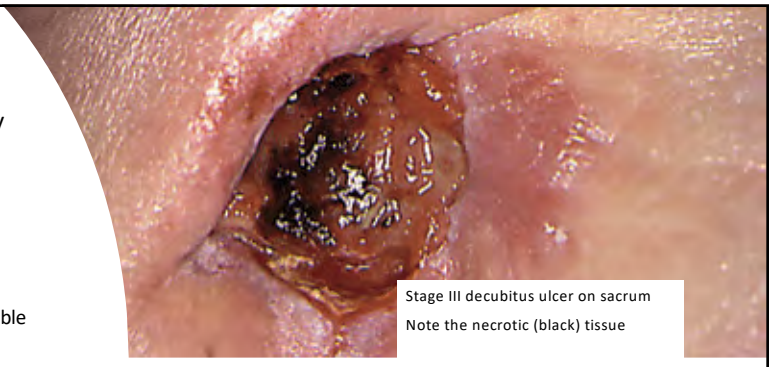
National Pressure Injury Advisory Panel (NPUAP) Staging System – 2016 Update



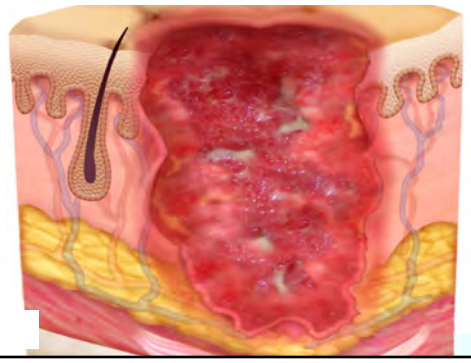
Stage III decubitus ulcer on sacrum

Note the necrotic (black) tissue

Stage III

- Full-thickness tissue loss. Subcutaneous fat may be visible but bone, tendon,
- or muscle are not exposed. Slough may be present but does not obscure the
- depth of tissue loss. May include undermining and tunneling.

- *Further description:*
- The depth of a Stage III pressure ulcer varies by anatomical location. The bridge of the
- nose, ear, occiput, and malleolus do not have subcutaneous tissue and Stage III ulcers
- can be shallow. In contrast, areas of significant adiposity can develop extremely deep in
- Stage III pressure ulcers. Bone/tendon is not visible or directly palpable.



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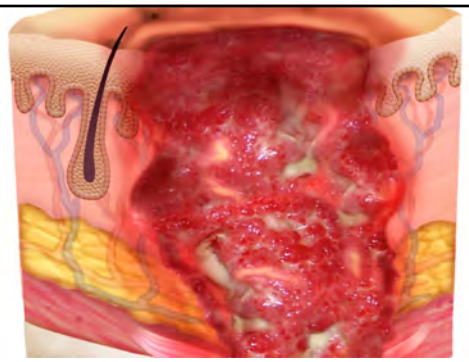
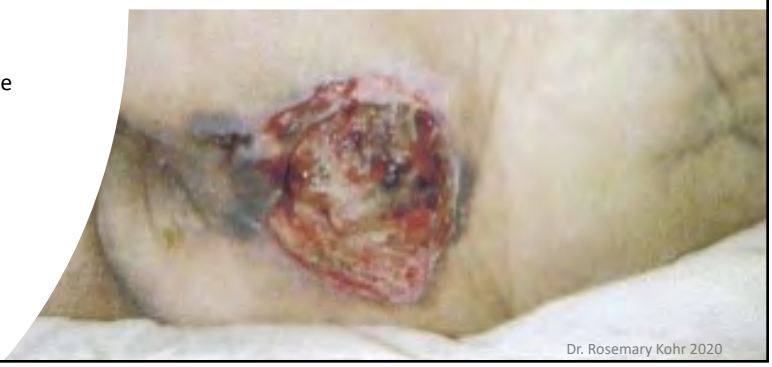
National Pressure Injury Advisory Panel (NPUAP) Staging System – 2016 Update: Stage IV

- Full-thickness tissue loss with exposed bone, tendon, or muscle. Slough or eschar
- may be present on some parts of the wound bed. Often includes undermining or tunneling.

Further description:

- The depth of a Stage IV pressure wound varies by anatomical location. The bridge of the nose,
- ear, occiput, and malleolus do not have subcutaneous tissue and these wounds can be shallow.
- can extend into muscle and/or supporting structures (for example, fascia,
- tendon, or joint capsule) making osteomyelitis possible. Exposed bone/tendon is visible or directly palpable.





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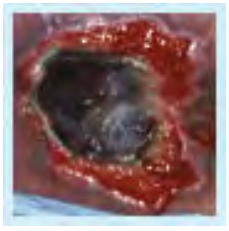
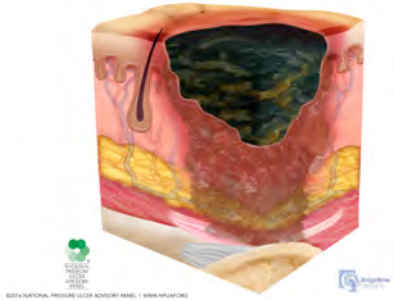
National Pressure Injury Advisory Panel (NPUAP) Staging System – 2016 Update: Unstageable (Stage X)

- Full-thickness tissue loss in which the base of the wound is covered by slough (yellow,
- tan, gray, green, or brown) and/or eschar (tan, brown, or black) in the wound bed.
- *Further description:*
- Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, and therefore stage, cannot be determined.
- **Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as "the body's natural (biological) cover"and should not be removed.**



Unstageable Pressure Injury - Dark Eschar



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Pressure Injury: Things to Remember

- Treat the Underlying Cause(s):
  - **Off-load pressure:**
    - Heels, other bony prominences
  - Deal with:
    - Incontinence
    - Nutrition/hydration
  - Heels: check both feet!!
- Communicate with the team (RN/RPN) if you notice any change

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What should I be watching for?

- **Skin breakdown is all about pressure**
- Look at pressure points (elbows, heels, back of the head, between the knees, bottom...)
- Look for areas of redness that when pressed, DON'T "blanch"– pale and when you let off the pressure, turn pink again
  - Darker skin: look for change in colour compared with surrounding area
- **Skin breakdown is all about moisture/incontinence**
  - Raw, red areas of "diaper rash"
  - Clean well with neutral wash
  - Use a barrier cream (prefer one with DIMETHICONE or even Vaseline)
    - Avoid Zinc products– too hard to remove

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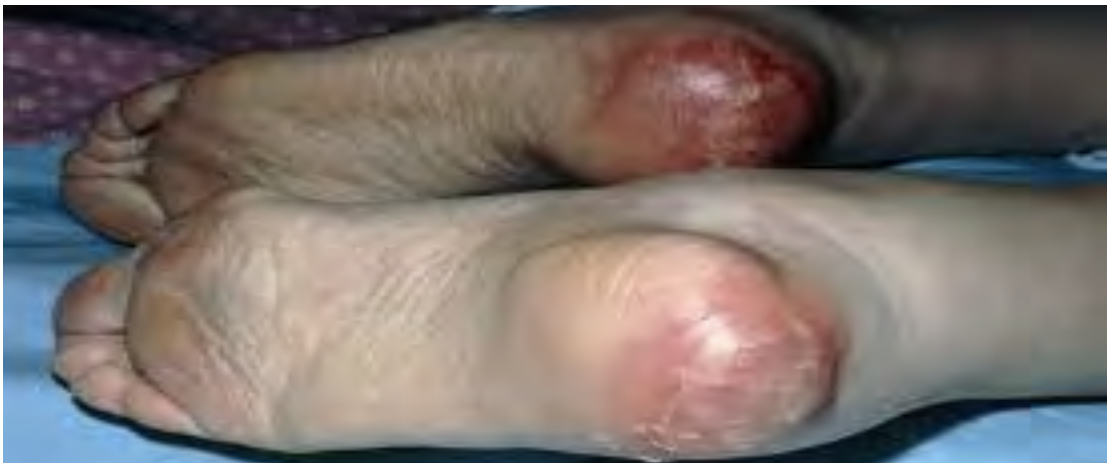
Pressure ulcers:



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PREVENTION

- Mobility / positioning for OFF LOADING
  - Moving techniques
  - Surfaces
  - Mattresses and cushioning *requires minimum 6" high- density foam for effective pressure relief*
- Continence
- ?? Protective dressings
- INSPECT routinely (pressure points) and OFF-LOAD PRESSURE

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EXAMPLE OF INAPPROPRIATE OFF-LOADING DEVICE: NOTE PRESSURE POINTS & ANGLE OF HIP LEADING TO SACRAL PRESSURE.

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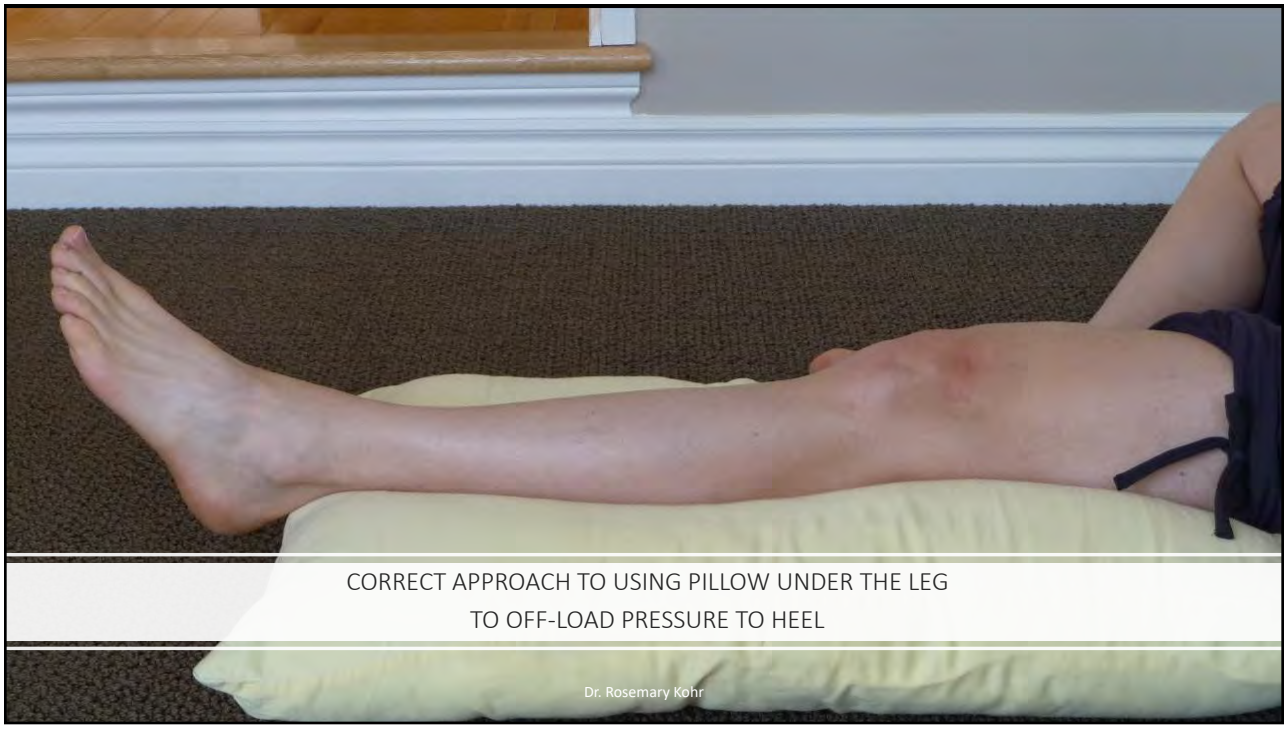

CORRECT APPROACH TO USING PILLOW UNDER THE LEG
TO OFF-LOAD PRESSURE TO HEEL

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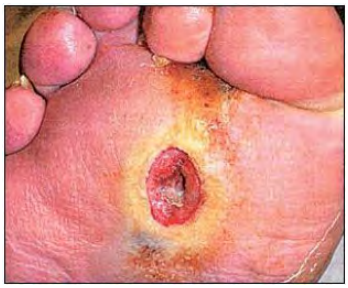
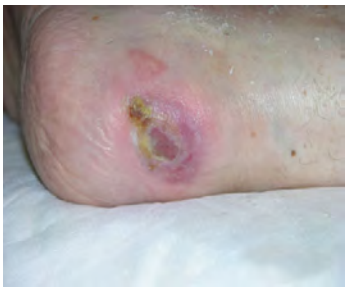
"Diabetic Feet"

Foot ulcers affect 30-50% of people with Type 2 diabetes



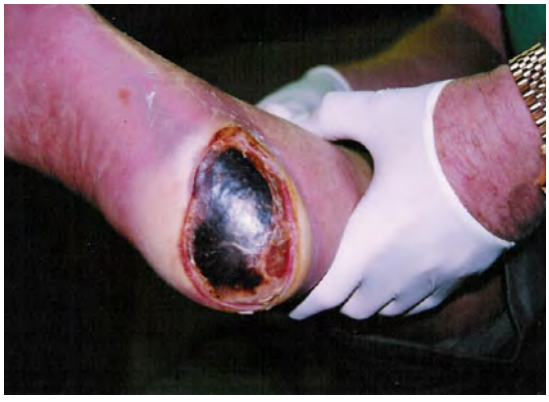


Impaired function of nerves & blood vessels supplying the feet.

Feet are dry--callus, dry skin.

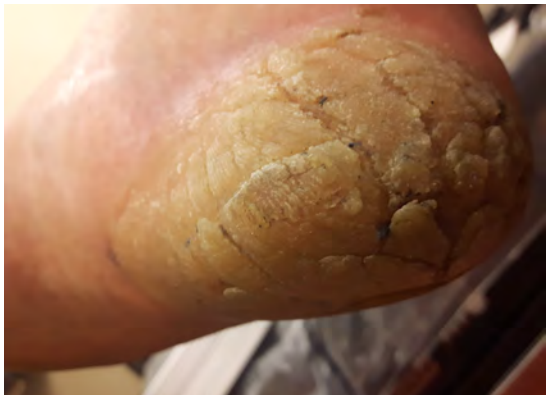
Prone to fissures, cracks & pressure ulcers--leading to infection which can enter and spread through the foot.

Sensory neuropathy:



- robs the diabetic foot of the protective mechanism of pain allowing ulceration to develop in response to minor trauma or rubbing.

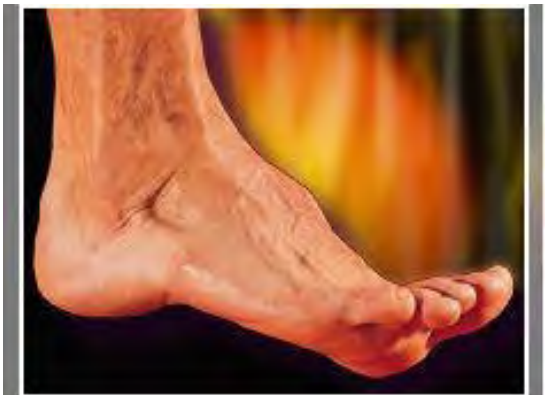
Autonomic neuropathy



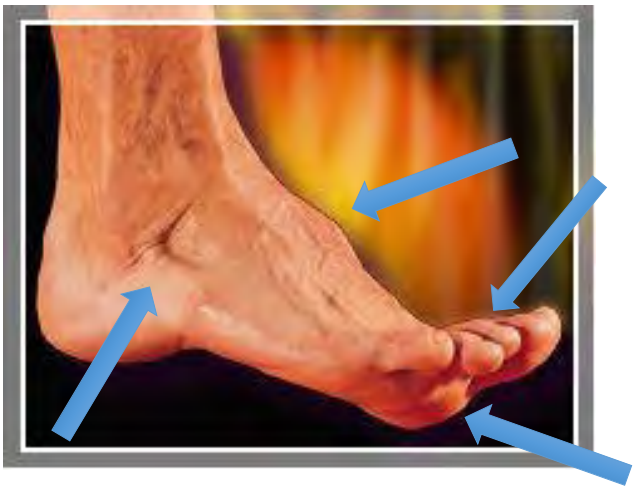
- reduces sweating and opens arteriovenous shunts in the foot.
- diabetic foot is typically warm, may have strong pedal pulses and dry, cracked skin.
- skin fissuring allows entry of bacteria causing localized infection.

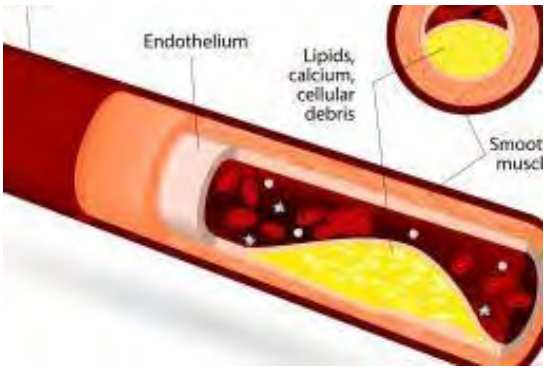
Motor neuropathy

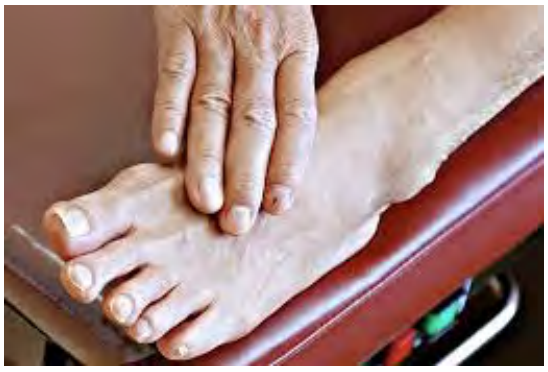
- Causes wasting of the small intrinsic muscles of the foot with collapse of the longitudinal and transverse arches
- Creates deformities to the foot
- abnormal pressure areas then develop which progress to ulceration (foot-wear is crucial).



Motor neuropathy foot deformity







Atherosclerosis (plaque build-up)

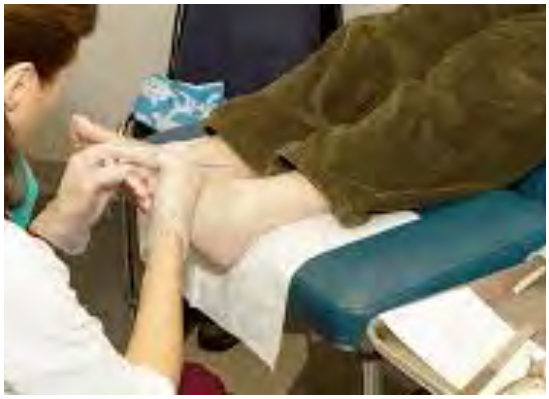
- develops at a much younger age and is more extensive and distal.
- Not uncommon for a diabetic to have a critically ischemic foot in the presence of a normal popliteal pulse due to occlusion of the crural arteries.
- In addition to disease of the major arteries, capillary basement membranes thicken, impairing oxygen diffusion to the tissues of the foot.

- **MONOFILAMENT Testing**
  - **Examine both feet**
  - **Look for signs of neuropathy**
  - **Should have score of minimum 6/10**

Prevention: EDUCATE EDUCATE EDUCATE: How do we do this best?

- TEACH about the importance of:
  - Daily foot inspection
  - Daily footwear inspection
  - Proper hygiene
    - drying / fungal powder / moisturize
  - Proper footwear (all the time)

Prevention: Footcare & Footwear



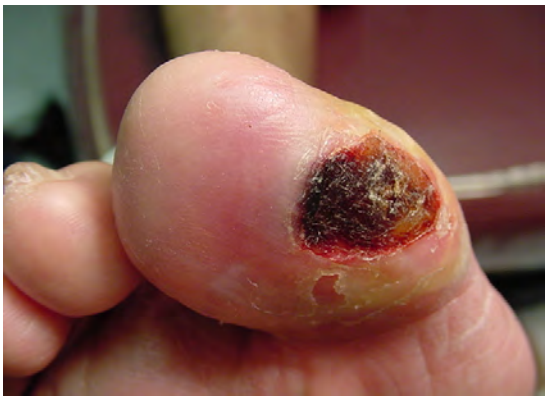
What is available in your location?

- Foot care nurse/clinic)
- Chiropodist/Podiatrist
  - able to deal with majority of foot issues, including surgical intervention
- Pedorthist/Orthotist
  - Provide orthotics & other devices

Footwear

SUMMARY: **PREVENTION**

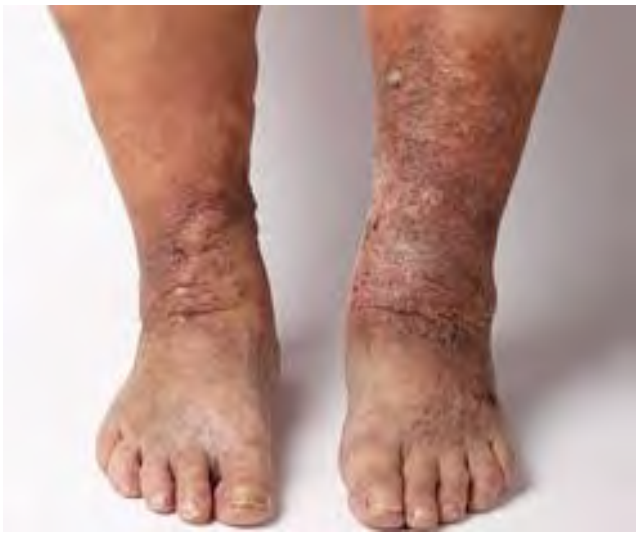
- Start with INSPECTION **OF BOTH FEET**
- HEELS off the surface (bed, chair)
- Foot hygiene--wash, dry feet & toes, apply cream to dry, cracked skin, observe & document any areas of skin breakdown or callus
- Specific diabetic socks and footwear
- Off-loading orthotics
- STOP SKIN BREAKDOWN BEFORE IT STARTS!!



Lesson 5:
Chronic Disease = Circulatory problems= Venous/Arterial wounds

Venous leg ulcers

- Common: 80% of leg ulcers
- Recur: recurrence rate of 70%
- Venous flow is dependent on the calf-muscle pump
- Venous insufficiency results in leakage into the surrounding tissue
- Hemosiderin staining: breakdown of RBCs into tissue/skin
- Over time, lower limb will become hard with "brawny" edema (firm to touch).



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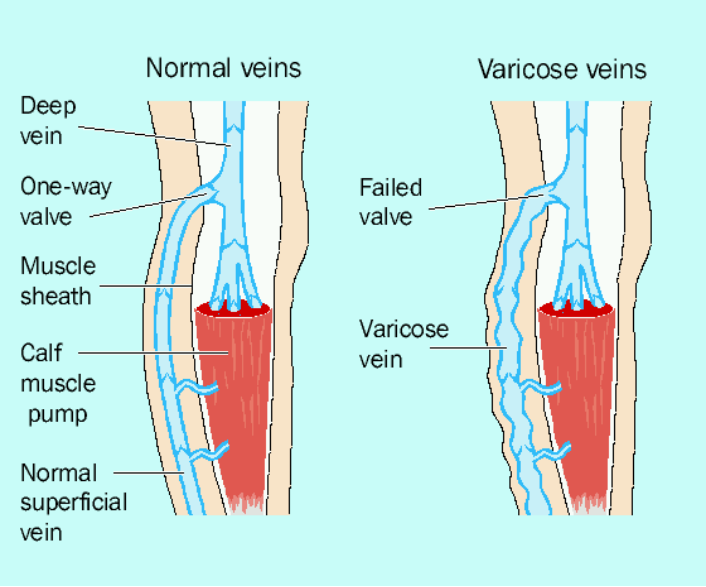

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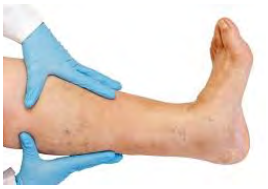

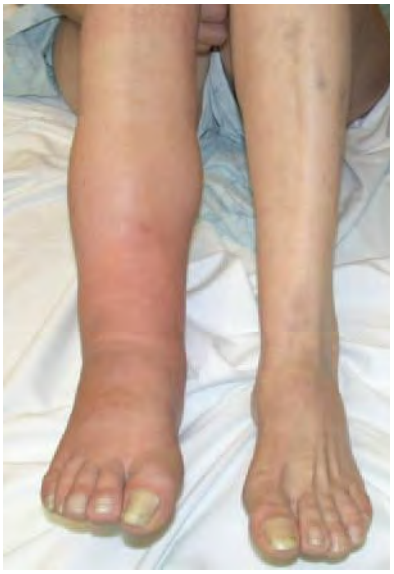

SWOLLEN LEGS are the start...

- Who is at risk?
- Blood clot
- Varicose veins
- Obesity
- Sedentary/immobilized
- CHF/cirrhosis/low albumin/CK

- **And if we do nothing here…?**

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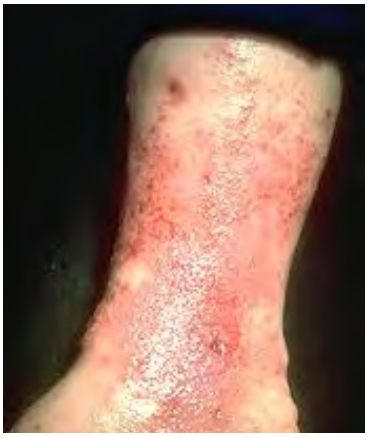
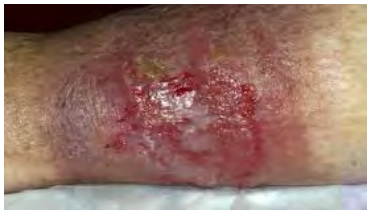
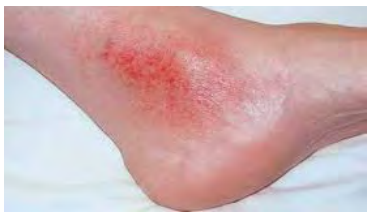
And we wonder why it's not getting any better...







Swollen legs and:

- The skin around or above the ankles looks reddish, yellowish, or a brown color
- Varicose veins: twisted, bulging, and dark purple or blue
- Pain
- Itching
- Sores that ooze, crust, or look scaly
- Thickened skin around ankles or shins
- Hair loss on ankles or shins

- **Treatment maybe a variety of creams, etc.**
- **"Nothing seems to really work".**

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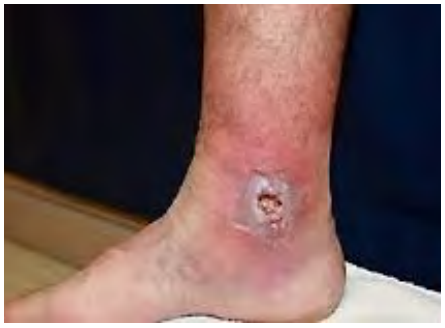

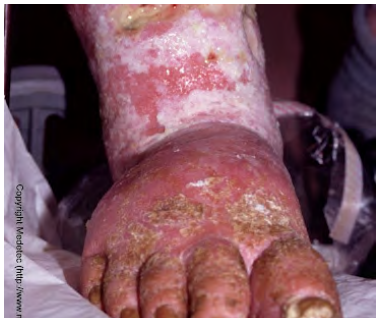

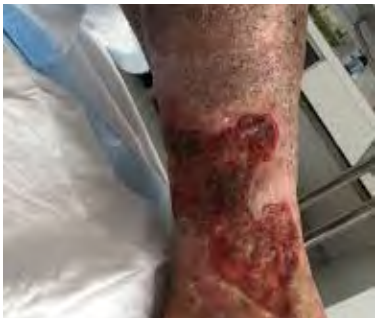

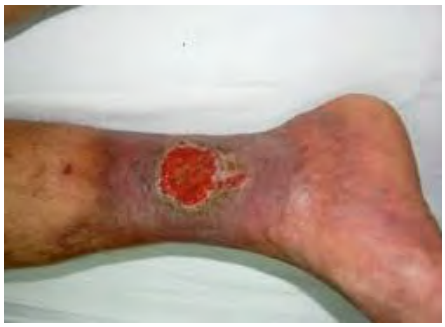

We end up with this

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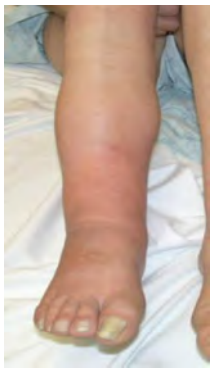
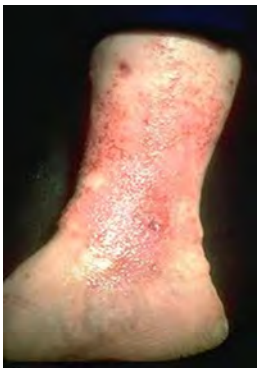
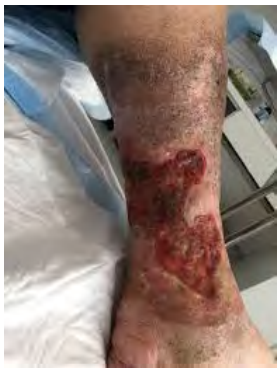
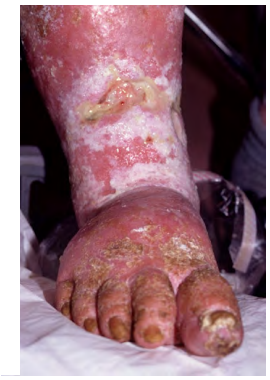
At each step, we need to Treat the Underlying Cause
which is... ??









PREVENTION TULC* TULC & TREAT TULC & TREAT

*TULC: Treat the Underlying Cause

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1. PREVENTION

- Graded compression STOCKINGS
  - ABI and PAD check FIRST
  - **not TEDS**
  - not full leg
  - toe to below knee
  - Need to be properly fitted by Certified Fitter
  - **TEACH TEACH TEACH**
  - NEED donning and doffing devices

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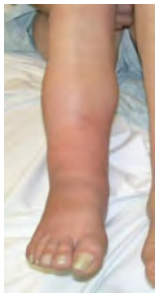

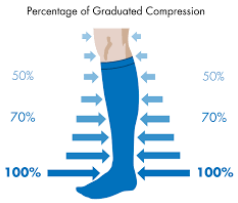

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PREVENTION: Wearing Graded Compression Stockings

"It's for life..."

- GRADED COMPRESSION STOCKINGS FOR INTACT SKIN **(no open wounds)**
- Check to make sure an Ankle-Brachial Pressure Index (ABPI) assessement has been done (within 6 months)
- Appropriate stocking (to be worn on getting out of bed until bedtime).
  - Many types of Graded Compression stockings
    - *Sigvaris™ is one example*

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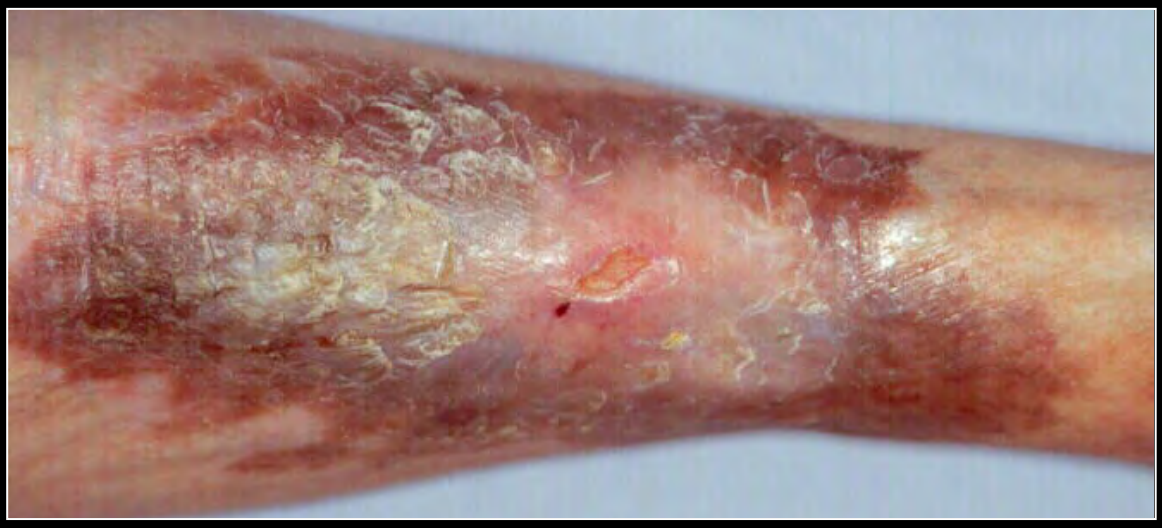

When there is a Venous leg ulcer (VLU): COMPRESSION is the GOLD STANDARD

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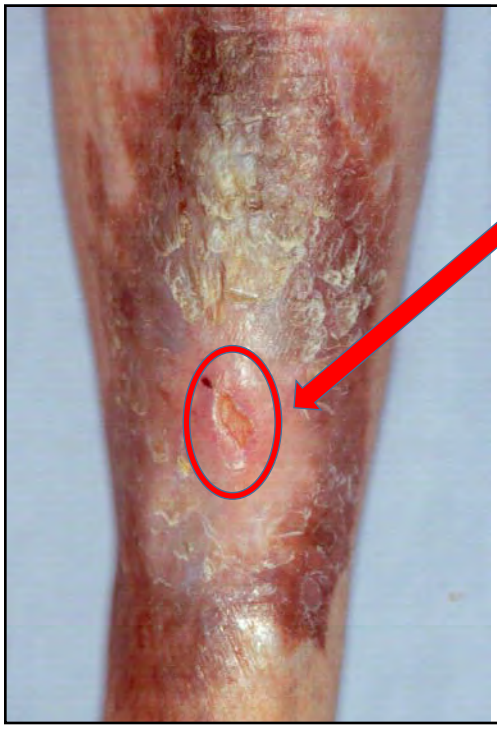

What do VLUs look like?

- Painful
- Shallow, irregular shape
- On shin
- Wound is draining serous fluid
- Hemosiderin staining circumferentially
- Edema: “champagne flute lower leg”

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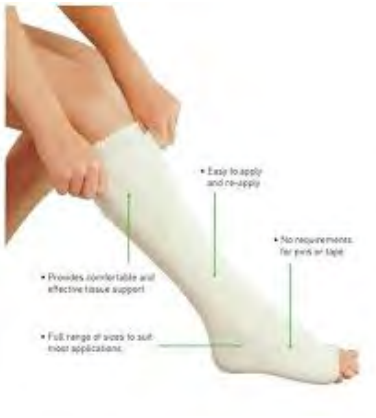
Compression is the Gold Standard for venous leg ulcer management. But...

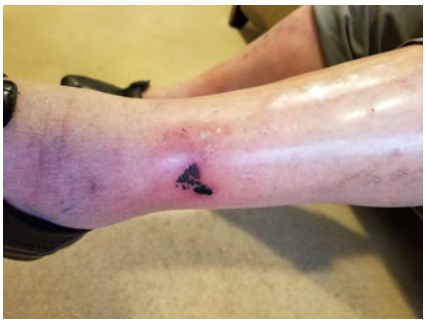
- **No compression** without Ankle-Brachial Pressure Index!!!
- Need to know proper technique to apply wraps
- Compression "adherence": uncomfortable, bulky—must be willing
- Explain need to elevate legs and use compression (if warranted) for edema control
- **Wounds won't heal if edema is not managed**
- Explain in language the patient understands

Who applies compression wraps in your facility?

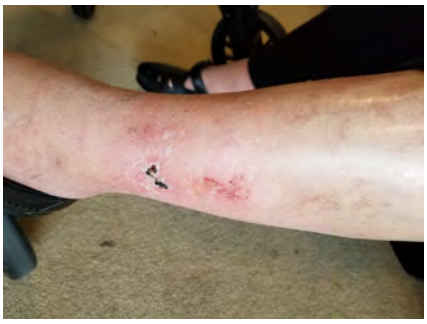


Alternative to compression wraps/stockings

Compression in action



BEFORE

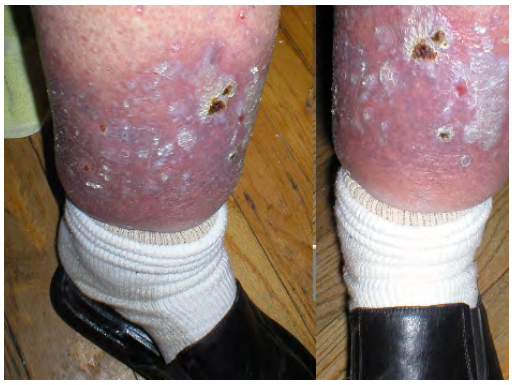


AFTER

RESIDENTS NEED TO KNOW– ONCE THE WOUND IS HEALED, THEY WILL NEED COMPRESSION STOCKINGS FOR THE REST OF THEIR LIVES TO AVOID DEVELOPING ANOTHER VENOUS LEG ULCER!

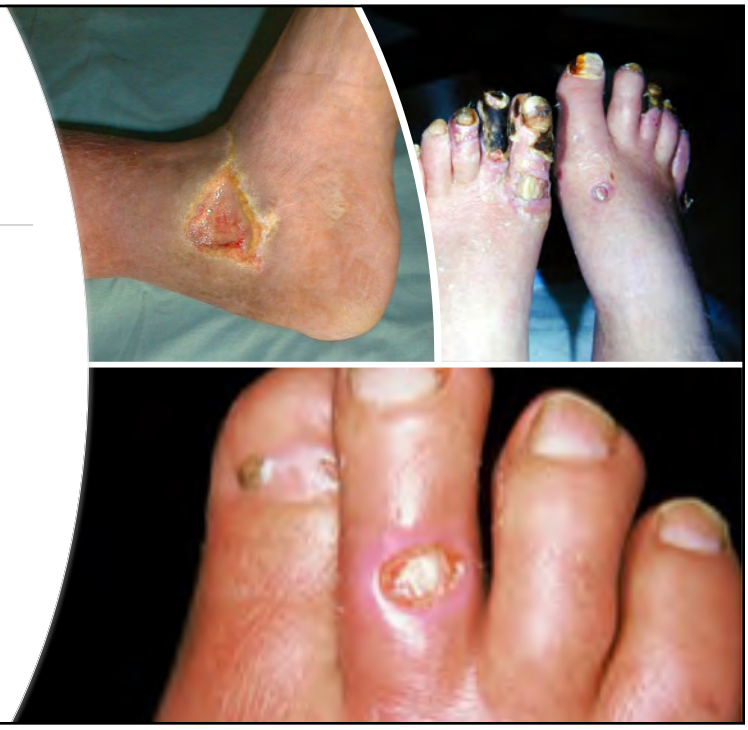
Contact dermatitis

- Allergic reaction to topical treatments
- 51-85% of patients with venous leg ulcers have some form of contact dermatitis
  - Topical antibiotics
  - Lanolin in topical moisturizers
  - Chemicals in dressings
  - Preservatives
  - Fragrances



Arterial/ischemic ulcers

- Characteristics:
  - Often over toe joints
  - "punched out" appearance
  - Pale wound bed
  - Necrotic (black) tissue
  - Legs: thin, bird-like, taut, shiny skin
  - Thickened toenails
  - Dependent rubor
  - Pain on ambulation or leg elevation
- Can have combination venous/arterial ulcers



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Things to remember…

- Arterial & venous wounds are the truly "chronic" of chronic wounds;
- Patient buy-in to treatment is essential
- Need to be aware of lifestyle issues
- Manage pain!
- **Venous ulcers: COMPRESSION**
- **Arterial ulcers: KEEP DRY (usually paint with Betadine)**

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A wound tipping into infection:

- When a wound is not healing (more than 3 weeks with no progress)
- When there is odour
- When there is an increase in drainage/exudate from the wound
- Redness around the wound (spreading?)
- Swelling around the wound
- Area around the wound is warmer to the touch
- When there is pain (increased or change in the type of pain)
- Temperature

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Your main role:

- **Prevention of skin breakdown**
- Regular assessment
- Contact your team if you identify the start/change of wound
- Follow the treatment plan
- Let the team know if dressings/treatment is not working

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Lesson 6:
When and what to use
in
Chronic Wound Management

What PSWs need to know.

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Dressings: What should a PSW know/be able to do?

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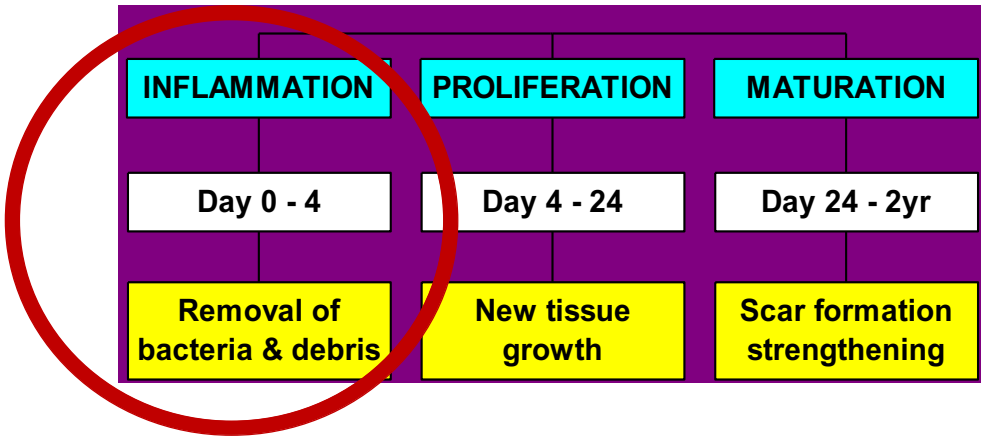
What should I know about dressings/ treatment?

How do wounds heal?



TYPICALLY, CHRONIC WOUNDS GET STUCK IN THE INFLAMMATORY PHASE

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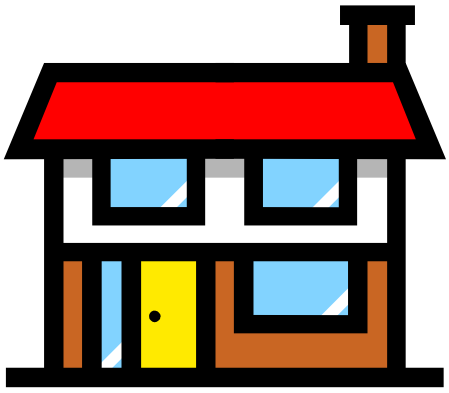
Damaged House Analogy



- **Hemostasis**/Utility Workers
- **Inflammation**/Non-skilled Laborers & Contractor
- **Granulation**/Framers & Skilled workmen (plumber, electrician, etc)
- **Maturation**/Interior finishing & landscaping

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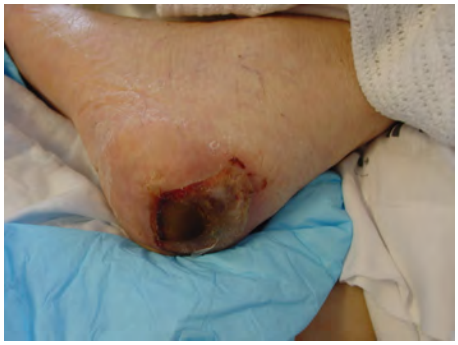
Treatment needs to be focused on:

- **Treat the underlying cause:**
  - **Pressure**
  - **Incontinence**
  - **Poor nutrition/hydration**
  - **Infection**
  - **Other chronic disease conditions**



Then: dressing options

Dressings should provide :

- A moist wound bed environment

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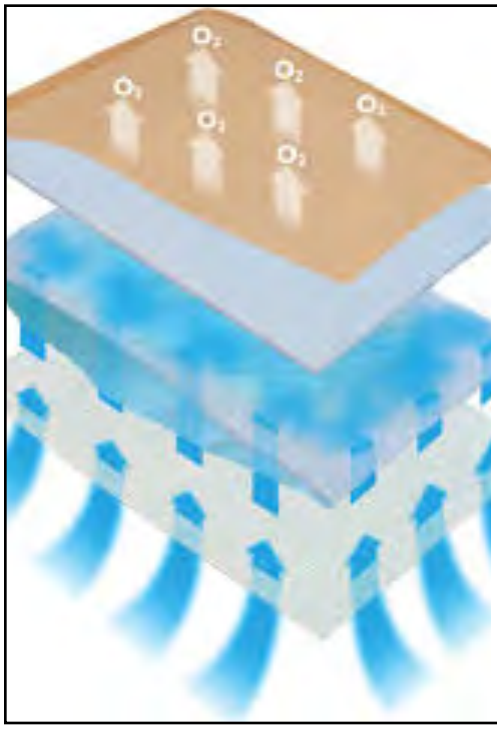

The Importance of MOISTURE-VAPOUR TRANSFER (MVT).

- Wounds that are too wet are unable to process the healing cascade.
- Dressings that do not provide MVT can stall wound closure by keeping the wound bed saturated.
- Dressings should provide effective MVT to support effective wound closure.

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Dressings should:

Wick away	Wick away excess moisture from the wound bed
Deal with	Deal with odour (result of bacteria)
Get rid of	Get rid of slough (yellowish/gray tissue in the wound bed)
Not stick	Not stick to the wound bed Have an atraumatic (not heavy adhesive) border
Avoid	Avoid transparent film

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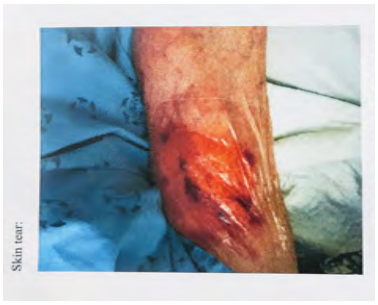

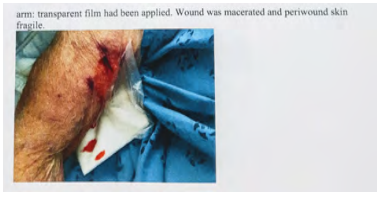

TRANSPARENT FILM

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INSTEAD USE NON-ADHERENT DRESSING (EG MEPITEL® or ADAPTIC® or... ABSORBENT ACRYLIC DRESSING (3M®) or... other non-adherent contact layer dressing.

Worsened wound caused by removal of transparent film (This shows the use of non-adherent contact layer– still requires a cover dressing & wrap)

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BASIC Dressing selections :

Type of Dressing	What does it do/special features
Barrier (cream, film, wipe, spray)	Protects skin & peri-wound skin Allows moisture vapour transfer Reapply q 24 hours or prn
Absorbent Acrylic	Protects skin & peri-wound skin Allows moisture vapour transfer Stays on 3 weeks +
Foam	Absorbs, wicks away drainage Stays on 5 + days
Hydrocolloid	Occlusive (not for infected wounds) Stays on 5-7 days
Calcium Alginate/hydrofibre	Wicks away drainage Needs a cover dressing (unless in pad format)
Hydrogel	Donates moisture to wound bed Scant amount required Cover dressing (e.g., Medipore w pad)

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How to choose a dressing: A B C Ds

A **AMOUNT (of fluid)**
B **BACTERIA**
C **CRUST**
D **DRY**
s **Skin Tear**

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AMOUNT of FLUID

VERY HEAVY – soaks through pads requiring frequent dressing changes (O.D. +)

HEAVY to *moderate* – dressing requires changing q 1-2 days)

Light – dressing change q 5-7 days

***Minimal* or *DRY* – protective dressing (stays on as long as possible)**

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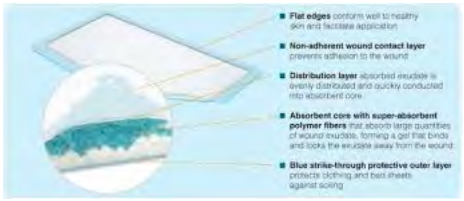
Dressing depends on:
AMOUNT of FLUID

VERY HEAVY – soaks through pads* requiring frequent dressing changes (O.D. +)

example: Xtrasorb:



*** avoid "Abd" pads!!**

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HEAVY to *moderate*
dressing requires changing every 1-2 days

Foam dressings can stay intact until drainage area on outside is within 1-2 cm of the edge

- **FOAM DRESSING**
- Remember *Moisture Vapour Transfer*
- **Foam: e.g., Mepilex with/without border, with/without silver (AG)**
- **Mesorb Pad "cheap & cheerful" (to replace those abd pads that just soak without MVT))**

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- ***Light*** – dressing change q 5-7 days
  - Use a light FOAM dressing or CLEAR ACRYLIC
- ***Minimal*** **or** ***DRY*** **– protective dressing (stays on as long as possible)**

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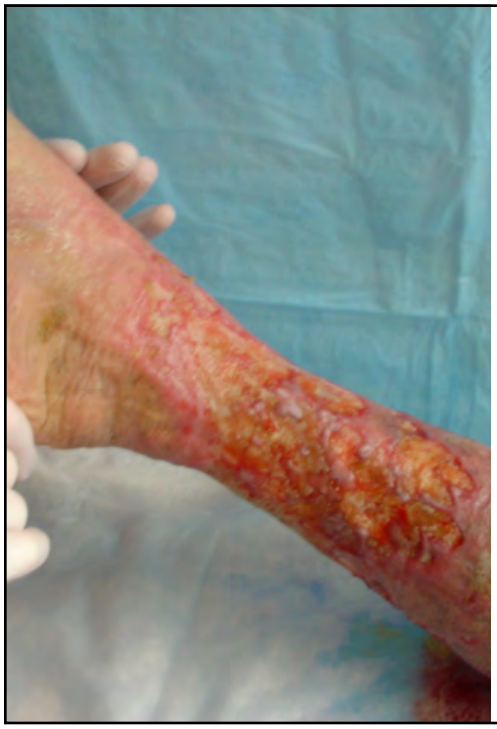

DRESSING selection DEPENDS ON: **Bacteria**

- ✖ **Goal: decrease the bacterial burden**
- ✖ **Unless systemic infection, treat with topical antimicrobial dressings**
- ✖ Topical options:
  - + Salt, silver, honey, iodine
  - + (more about these later)
- ✖ Compression is possible while infection present.

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B: Bacteria

- **In wounds, often drainage increases with bacterial load:**
- TOPICAL DRESSING OPTIONS:
  - Silver –any dressing with "AG" (weekly)
  - Medical-grade Honey (weekly)
  - Hypertonic sodium (eg: Mesalt: **daily**)
  - "Iodine"in slow-release form
    - (eg: Iodosorb/Inadine) **q 3 days**

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C: Dressing depends on Cleaning up the Crust

- Use an "autolytic" debrider component
- Important: leave the dressing intact as long as possible to allow autolytic debridement to occur.

Examples:

- hydrocolloid (e.g., Comfeel ®, Tegaderm®**)**
- Medical-grade honey (paste/patch with colloid)
- Foam (Mepilex®, Biatain®)
- And sometimes hypertonic salt (Mesalt®)

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Tegasorb hydrocolloid with No-Sting wipe: change q FIVE DAYS
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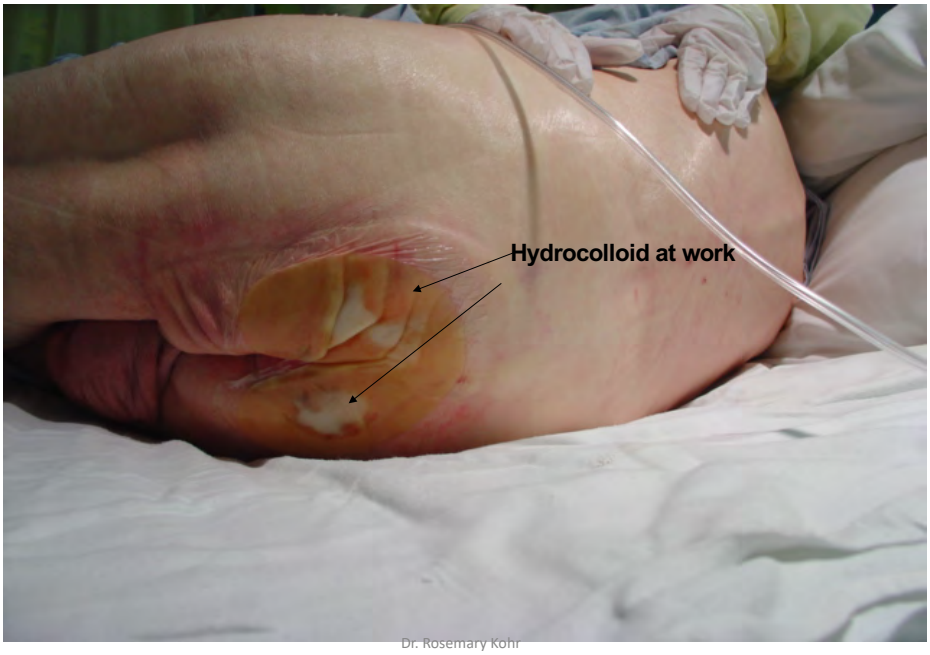
Hydrocolloid at work
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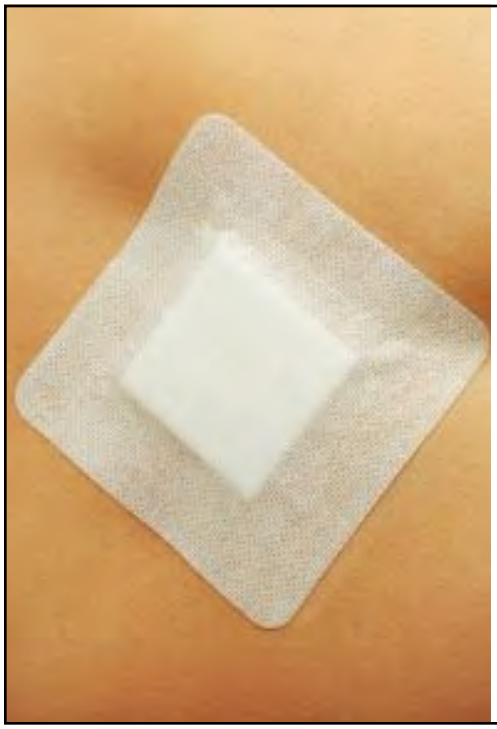

D = DRY WOUND

- When you don't need a dressing for **"A, B, or C"**
- Just need something to cover, protect:
  - Virtually no drainage
  - Healing well
  - Moving towards closure
- Choose something "cheap & cheerful" (e.g., an Island dressing – gauze with gentle tape)

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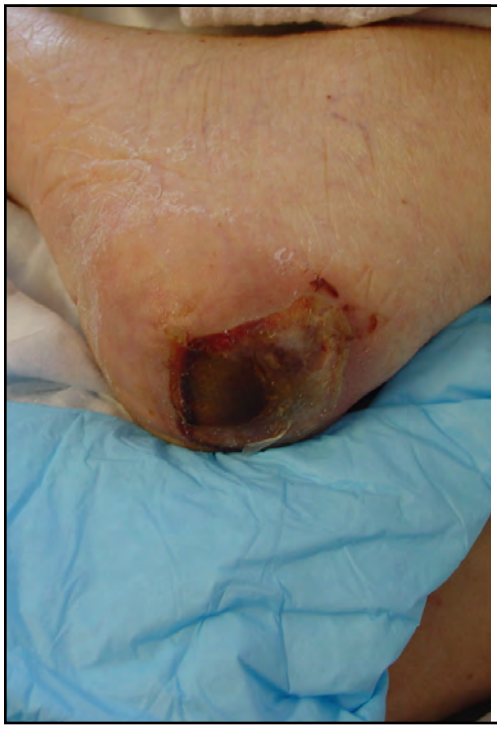

Steps to Dressing

1. Treat the underlying cause (TULC)
2. Prepare the wound bed
   a) Cleanse gently
3. Protect (use a barrier wipe to the skin around the wound, if not using a silicone-based dressing)
4. Dressing selection (ABCDs)

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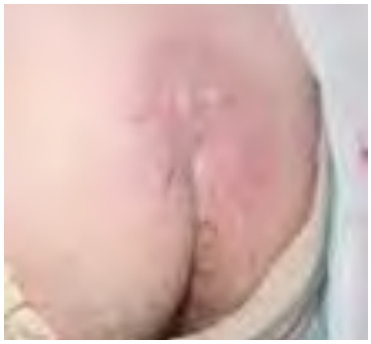

Skin Sealants/Barriers

- designed for intact skin or **up to & including Stage 2 Pressure Injuries**
- easy to apply
- dries quickly
- inexpensive
- prevents tape damage
- Examples: No Sting, Cavilon Cream, ProShield Plus

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A: absorb (how much drainage?)
B: Bacteria (how much bio-burden?)
C: Clean up the Crap (debridement?)
D: Dry, healing wound?
s : Skin tear?

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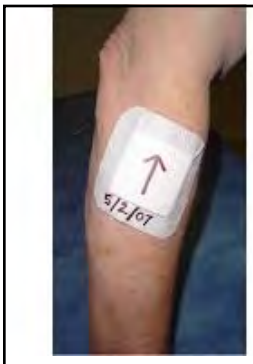

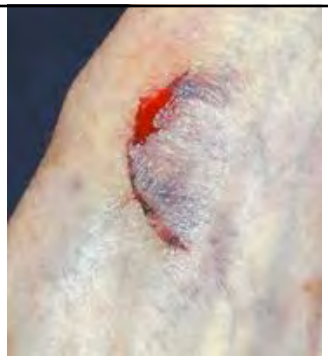

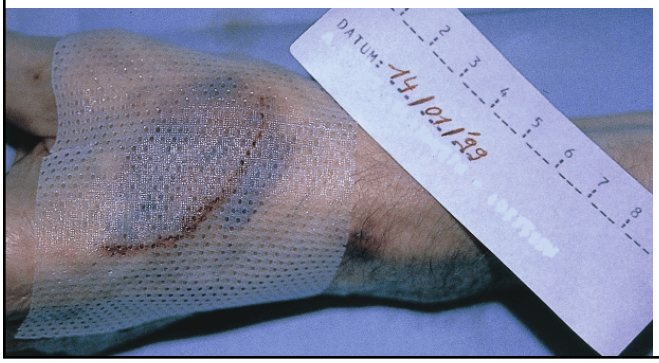

SKIN TEARS ("S")

Skin tears require GENTLE treatment!

- Avoid adhesives
- Avoid transparent film (doesn't allow moisture vapour transfer)
- Contact layer + cover dressing:
  - Only change cover dressing when saturated
  - Leave contact layer on ALAP (As Long As Possible)

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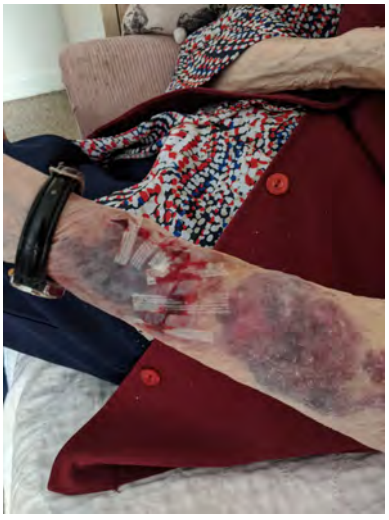
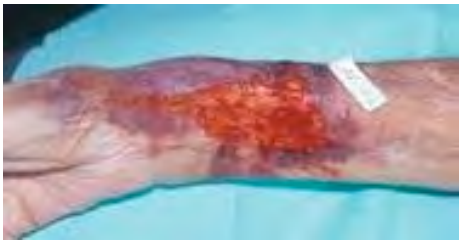
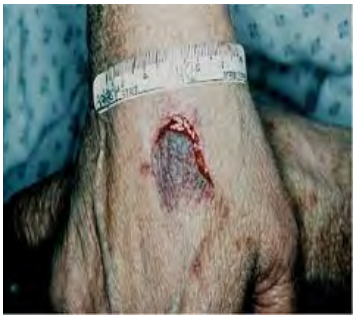
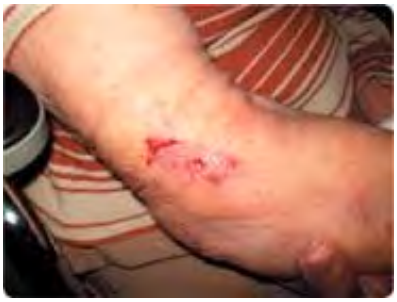
Skin Tear
Case examples









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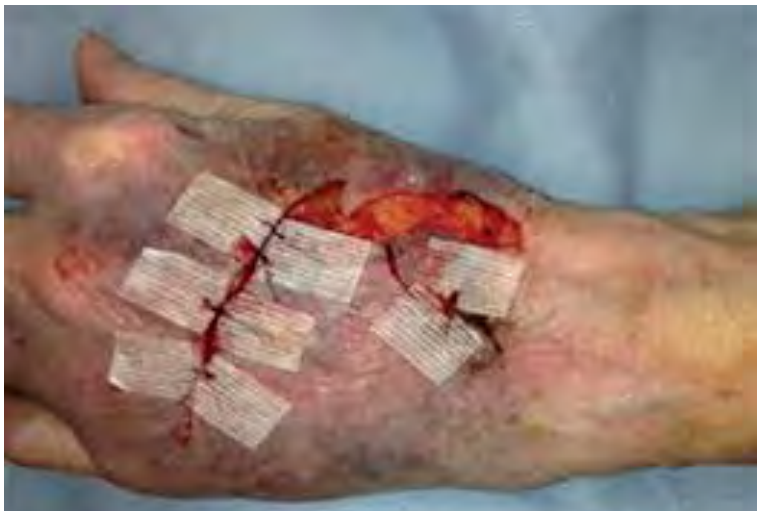

No stitches please!

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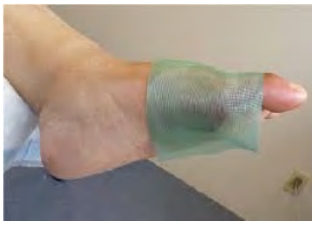
Contact Layer Dressings: Require a Cover dressing and NO adhesive borders please!!



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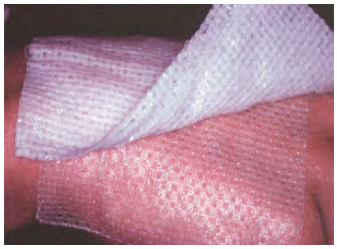
Soft silicone wound contact layer: e.g., Mepitel ®

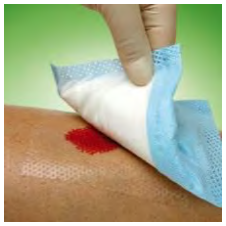


AREAS OF USE

Exuding wounds:

- Second degree burns
- Graft fixations
- Surgical incisions
- Diabetic ulcers
- Lacerations & skin tears
- Skin abrasions
- Blistering
- Venous and arterial ulcers
- Epidermolysis Bullosa (EB)

BENEFITS



- Minimizes trauma to wound and surrounding skin while easing wound pain.
- Silicone does not stick to wound bed yet adheres gently to the surrounding skin.
- Can remain in place up to 14 days, only changing secondary dressing, permitting undisturbed and cost-effective healing.
- Prevents sticking of secondary dressing to wound.
- Can be used in combination with topical treatment (e.g. antimicrobials).

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Dressings: Adaptic Touch

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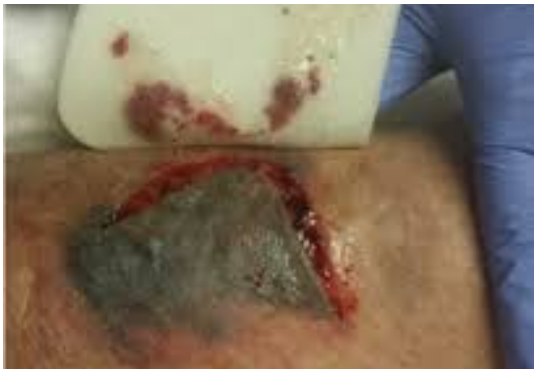
Dressings: Absorbent Clear Acrylic

REMOVING the dressing



Why **NO** to these products:

- **Jelonet**: Paraffin-gauze
- **Adaptic** ("old version"): Petrolatum emulsion

Limited Moisture Vapour Transfer (MVT)

- leads to maceration of wound/periwound

- **Bacitracin** (1940s): Contact dermatitis develops in up to 44% of patients

DRYING A WET WOUND, or supporting the moist wound bed.

- <u>FOAM DRESSING</u> (e.g., Mepilex*, Mepilex Border*)
- Absorbs exudate.
- Can be left intact up to 7 days!!
- Does NOT provide pressure relief.
- *Dressings with silicone base/border can be lifted up to check (and the same dressing reapplied)*

Soft silicone dressings:

- For wounds or skin tears with fragile periwound skin
- Silicone base won't stick to wound bed
- "Tacky" –conforms to heels, elbows, etc
- Can be lifted to assess wound then re-applied
- Not for damp/sweaty skin or if other silicone product (barrier cream) is used

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DRYING A WET WOUND:

- Hydrofibre or Calcium alginate: Aquacel or Calcicare are examples
- Goes on **DRY**
- Soaks up drainage into gel form (hydrofibre)
- Can be folded/cut to fit wound, or can lie over peri-wound skin
- Use with cover dressing *(e.g., non-woven gauze, Mesorb pad and wrap).*

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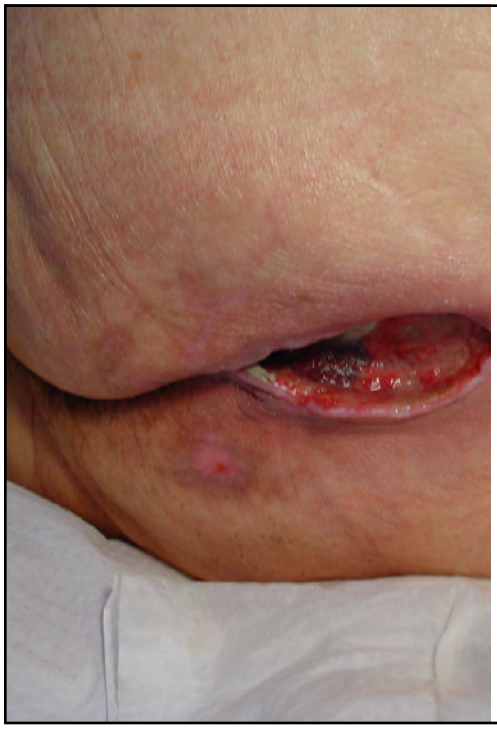
SALT : Mesalt

- Sodium Chloride Impregnated (packing ribbons or squares)
- wicking action draws fluid and debris out
- maintains a moist wound environment
- How it works: pulls out fluid (osmotic balance), decreases edema to tissue so the body can work to clean/heal the wound.
- **Goes on DRY**
- Change daily

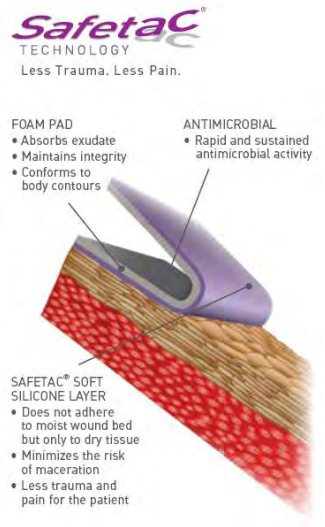
Mesalt is an example.



Indications for Mesalt:

- Infected wounds
- Wounds with moderate to heavy drainage (exudate)
- Deep cavity wounds
- Pressure ulcers
- Surgical wounds
- **Not for dry/minimal drainage wounds**

SILVER FOAM DRESSING EXAMPLE



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Inter Dry Ag

- Polyester textile impregnated with silver
- wicks moisture away to keep skin dry
- Need to have “wick” beyond the folds of skin (don’t just tuck it in)
- Not for open wounds
- For moisture, odour and inflammation in skin folds and other skin-to-skin contact areas
- effective antimicrobial action for up to five days
- After that, it can be hand-washed and used to wick away moisture (silver will be done)

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Anti-microbial gauze (not silver...)

- Contains PHMB (Polyhexamethylene Biguanide) antiseptic
- E.g., "Kerlix AMD"
- Loose weave– may leave fibres in wound bed.
- Doesn't wick away fluid (like InterDry AG does)

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Infection/drainage: *Hydrofera Blue*

- Special foam dressing contains 2 anti-bacterial dyes: methelyn blue and gentian violet
- Action: *pulls* bacteria out of the wound bed where it is killed within the foam dressing (no dye is actually *deposited* in the wound).
- Also effective when wound edges are rolled (indicating stalled healing)
- Dressing can be cut to fit OR placed over the wound/peri-wound.

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Hydrofera Blue ***Ready***

- **Ready version** does not require hydration or a cover dressing
- **Classic version** requires hydration AND a cover dressing.
- **Transfer version** acts as a medium to trap bacteria but requires a cover dressing as well.
- **When the dressing is white, it has "given up the fight" & needs to be replaced.**

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Medical-grade HONEY

- Naturally antimicrobial
- Hyperosmolar: restricts fluid available to bacteria
  - pulls fluid from bacteria (re: sucrose)
- Acid pH: 3.2-4.5: inhibits bacterial growth
- Glucose oxidase enzyme: produces hydrogen peroxide (at low concentration –doesn't damage tissue)
- **Why not use over-the-counter honey?**
  - Potential for contamination from method of honey production (e.g., pesticides, spores), processing, receptacle sterility, storage
  - Variable consistency of active ingredients
  - Patients have developed serious bacterial infections

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Medi-honey comes in form of:

• Honey Calcium Alginate (wet wounds),

•Tube (with applicator tip): warm in tube & use in cavity/tunneling wound

•HCS (Hydrogel Colloidal Sheet) & Honeycolloid: similar application to hydrocolloid, but also when critical colonization in wound bed

HCS

Honey-colloid

And

Hydrogel Colloidal Sheet (HCS) dressing

Honey Calcium alginate

Tube with applicator tip

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IODOSORB™ or INADINE™

AREAS OF USE

- External ulcers
- Infected wounds

DESCRIPTION & BENEFITS

Iodosorb/Inadine is a Cadexomer Iodine based product helping to remove bacteria, slough and debris.

1. Provides sustained antimicrobial therapy for 72h.

2. Reduces bacterial load including MRSA & VRE.

3. Helps prevent new pathogen invasion.

4. Removes slough & debris.

5. Manages excess exudate.

6. Creates a moist environment.

7. Accelerates healing in leg ulcers.

8. Helps eliminate odour.

9. Biodegradable.

10. Treats infection.

• CONTRAINDICATIONS: IODINE SENSITIVITY: ASSESS THYROID

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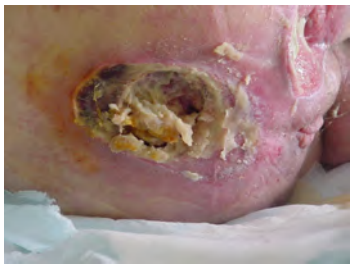
Changes colour when Iodine downloads into wound:



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ADDING MOISTURE TO A DRY WOUND:

- Use a hydrogel—such as Intrasite™ gel to support autolytic debridement.
- Moist wound bed is optimal for debridement and healing.
- Scant amount will be effective.
- Can be mixed with Iodosorb to improve application.

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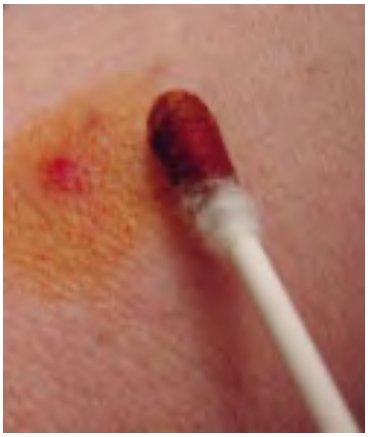
Betadine or Poviodine



- Contain povidone-iodine in a 10% solution with 1% available iodine.
- Cytotoxic: **not for use <u>full strength</u> on healthy, healing tissue.**
- Useful for gangrenous wounds
- And/or ++ odour
- Dries up wounds

Summary

- Be aware of **increased drainage, increased pain**
  - Both are indicators of possible infection
  - Consider an absorbent cover dressing (remember MVT)
- Appropriate dressings: salt, silver, honey, Hydrofera Blue and iodine compounds
  - Iodosorb, Betadine or Poviodine
- Use according to manufacturers' directions
- Generally, the LONGER the dressing stays on, the better.

Wound care "myths": (don't do these!!)

- Massage a reddened area (non-blanchable erythema)
- Cornstarch/Maalox Tx to dry up a wound
- Brown Soap or Rubbing Alcohol to 'toughen' skin
- Irrigate wounds*withBetadine/Chlorhexadine
  - Only in some cases (gangrene; for a few days if heavily infected)
- Leave wounds open to the air
- Donut cushions
- Firm packing of wounds

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What dressings do you have in your work-place?

Dressing Selection on ABCD A = Absorption, B = Bacteria, C = Crust, D = Dry, s= Skin tear	Dressing option(s)
A	
A + B	
A + C	
A + B + C	
B	
B + C	
C	
D	
s (Skin Tear)	

Dressing type:
Contact Layer,
Polymer (bead) fibre,
Foam,
Absorbent Acrylic,
Hydrocolloid,
Hydrofibre,
Calcium Alginate,
Hypertonic Sodium,
Island Dressing,
Barrier,
Silver,
Iodine,
Honey dressings,
Hydrofera Blue
PHMB-impregnated gauze.

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In conclusion...

- Important for PSWs to know what they are seeing:
  - Skin tears
  - Pressure injury/red area on bony prominence
  - Venous legs: swollen, puffy feet
  - Diabetic Foot care (and shoes)
  - A wound that is becoming infected
- Important to know how the dressings work
- Communicate with your team!