VOLUME 1

Clinical SKIN & WOUND CARE GUIDELINES MANUAL

CLINICAL EDUCATION GUIDE

Clinical
SKIN & WOUND CARE GUIDELINES
MANUAL

WHAT'S INSIDE VOL 1.

The comprehensive manual includes:
patient polices & procedures, clinical education and clinician forms.

Clinical
EDUCATION GUIDE
VOLUME 1 - 10 SECTIONS

A comprehensive skin and wound management training manual based on today's standards of care. This manual is designed to help keep clinicians current in the care of their clients and patients.

Traumatic Wounds

GOALS FOR MANAGING TRAUMATIC WOUNDS:

1. **Preserve injured tissue.**
2. **Prevent shock and systemic effects.**
3. **Prevent infection.**
4. **Identify and manage associated injuries.**

ABRASION (ROAD RASH)

(Brouhard, 2021)

Abrasion is a superficial injury to the top layer of skin.

Cause

Shearing of skin on rough surface.

Appearance

Lines of scraped skin with tony spots of bleeding.

Treatment

- If severe, stop bleeding by applying pressure to the area with a clean cloth or absorbent bandage. Seek assistance from a health care provider.
- If minor, stop any bleeding by applying pressure to the area with a clean cloth or absorbent bandage:
    - Cleanse wound with soap and water. Apply cover dressing as needed.

AVULSION (DEGLOVING)

(Brouhard, 2021)

An avulsion injury is when tissue, or a small section of it, is torn off partially or completely. In case of a partial avulsion the elevated tissue remains attached, while in absolute avulsion the skin it is completely detached from the body.

Cause

Commonly caused by animal bites, industrial equipment, or motor vehicle injuries.

Appearance

Avulsions are difficult to assess and treat due to noticeable absence of tissue. Avulsion results in heavy, rapid bleeding and these wounds are at an increased risk for infection.

Treatment

SEVERE

- Control bleeding with direct pressure and elevation, avoiding tourniquets unless bleeding cannot be controlled, and medical care will not be available for several hours.

LESS SEVERE

- Control bleeding, clean wound of debris, and keep wound moist:
    - If the tissue (skin, fat, and muscle) is not completely removed, replace the flap, and dress the wound;
    - If the tissue is completely separated from the victim's body, collect it if available;
    - Appropriate to put direct pressure on raw muscle or fat tissue. Use an absorbent dressing or whatever clean cloth is available.

CRUSH INJURY

When a part of the body is caught between two objects that are being push ed together at high pressure, the resulting squeeze will leave the patient with a crush injury.

Appearance

Damage related to a crush injury can include laceration, fracture, bleeding, bruising, compartment syndrome, and more.

Treatment

If there is considerable swelling and limited or no mobility in the affected extremity, medical attention may be necessary to obtain an X-ray and determine if there is a break. Fractures are often a cause of compartment syndrome.

(Borke et al., 2021)

LACERATIONS

(Brouhard, 2022)

Skin Lacerations are torn, ragged wounds that involve deeper tissue and may require suturing to assist with closure and healing.

Treatment

- Clean the wound, remove / flush away any foreign debris.
- Apply adhesive strips, tissue adhesive, transparent dressing, or antibiotic ointment with a gauze covering.
- Lacerations that involve the face, are longer than 1/2", are deep, or are bleeding heavily may require sutures if less than 12 hours old.
- If unable to close a laceration surgically, healing with secondary intention occurs.

PUNCTURE WOUNDS

(Brown, 2022)

A puncture wound is an injury caused by a sharp object deeply penetrating the skin and creating a small hole.

Cause

Common causes of puncture wounds are wood splinters, pins, nails, and glass. Puncture wounds may also be caused by scissors and knives.

Appearance

Some punctures are just on the surface. Others can be very deep, depending on the source and cause. A puncture wound results in little bleeding around the outside of the wound and more bleeding inside, causing discoloration.

Treatment

- Irrigate the wound. Cover it with a protective dressing.
- Treatment may be necessary to prevent infection.
- A puncture wound from, for example, stepping on a nail, can become infected because the object that caused the wound may carry bacteria or spores of tetanus into the skin and tissue.

SKIN TEARS

(ISTAP, n.d.-a; ISTAP, n.d.-b; ISTAP, n.d.-c; Brouhard, 2022)

An international organization of multidisciplinary healthcare professionals, the International Skin Tar Advisory Panel (ISTAP) was formed to bring awareness to skin tears with the focus on prevention and management.

ISTAP defines a skin tear as:

> "A skin tear is a traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth (not extending through the subcutaneous layer)."

(LeBlanc et al, 2018).

Cause

Skin tears are caused by shear, friction, blunt trauma, and adhesive products. Common locations (50% to 80%) are:

- Dorsal surface
- Hands
- Arms
- Legs

Risk Factors and Sources of Injury

- Premature infants to very young, and elderly.
- Thin, fragile, and / or dry skin.

- CAUTION! Not recommended:
    - Staples;
    - Sutures;
    - Skin adhesive strips / strong tape or adhesive due to risk of skin stripping (MARSI);
    - Hydrocolloid dressing;
    - Traditional transparent film;
    - Woven gauze.

CONTRAINDICATIONS

- Hydrogen peroxide
- Strong adhesives (strip skin)

- Approximate viable skin flap without stretching or pulling into place.
- Skin adhesives / liquid bandages (liquid):
    - Linear skin tears;
    - Skin flap can be approximated.
- Wound dressings:
    - Non-adherent, foam, silicone, alginate, hydro fiber, hydrogel.
- Securement:

Tape:	• Silicone • Foam • Mild adhesive • Hypoallergenic • Latex-free
Tape-Free:	• Stockinette • Tubular dressing • Cohesive bandage

Prevention

- CDC recommends tetanus vaccine and booster every 10 years and good wound care.
- Nutrition:
    - Malnutrition screening test to check risk factor;
    - Consult dietician if indications of at risk or malnourished.
- Personal Care:
    - Attention to fragile skin;
    - Avoid rings;
    - Pulling clothes over arms and legs too quickly.
- Bath Hygiene:
    - Warm water (not hot);
    - Bathe (shower) five to 10 minutes, two to three times / week;
    - Soft washcloth (do not rub skin);
    - Cleansers (fragrance free, pH balanced).
- Moisturizing:
    - Emollients;
    - Humectants;
    - Occlusives.

- High moisture content (sweating, wound exudate).
- Impaired mobility and prone to falls.
- Previous skin tears (tissue prone to wounds reopening).
- Malnutrition (inadequate nutrition and nutrients).
- Medications, especially corticosteroid.
- Inadequate transferring techniques.

Potential Skin and Tissue Damage

First Skin Layer (Epidermis):	Partial thickness wound.
First Skin Layer (Epidermis) + Second Layer (Dermis):	Partial thickness wound.
First + Second Skin Layers and Subcutaneous Tissue:	Full thickness wound.

Skin Tear Classification System

Type 1:	• **Skin Loss:** No skin loss. • **Skin Flap:** Intact (linear or flap tear). • **Approximate:** Reposition flap over open wound bed. • **Healing:** Skin flap may stay viable if covered with dressing to maintain moist wound healing environment.
Type 2:	• **Skin Loss:** Loss of partial flap. • **Skin Flap:** Flap cannot be approximated to cover wound bed. • **Healing:** By secondary intention; dressing to protect wound from further trauma and promote moist wound healing.
Type 3:	• **Skin Loss:** Open wound. • **Skin Flap:** Total loss of skin flap. • **Healing:** By secondary intention; dressing to protect wound from further trauma and promote moist wound healing.

Treatment

GOALS:

1. **Protect viable skin flap and open wound area.**
2. **Prevent infection.**
3. **Moist wound healing.**

- Follow wound hygiene policy (wear gloves and avoid contamination of wound).
- Control bleeding with gentle pressure until bleeding stops.
- Gently cleanse and remove any debris per policy and protocol.

Clinical
SKIN & WOUND CARE GUIDELINES MANUAL

VOLUME 2

POLICIES & PROCEDURES

FORMS & INFOGRAPHICS

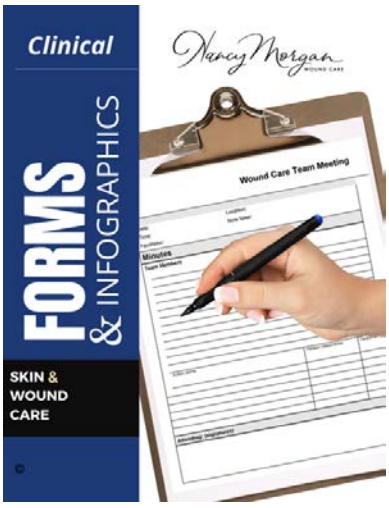
Clinical
SKIN & WOUND CARE GUIDELINES MANUAL

WHAT'S INSIDE VOL 2.

The comprehensive manual includes:
patient polices & procedures, clinical education and clinician forms.

Clinical
POLICIES & PROCEDURES
VOLUME 2 - 7 SECTIONS

This complete set of protocols, policies & procedures was created from today's current standards of care. These policies provide the proper methodology to keep your agency and clinicians current and legally defensible.



Clinical
FORMS & INFOGRAPHICS
2 SECTIONS

A complete set of templates, forms, guides and resources to help the clinician properly document and manage a patient's wound care.

Policies & Procedures

Policy Title:	Policy #:
ALGINATE DRESSING APPLICATION	

Cross Reference:
DRESSING CHANGE, WOUND CLEANSING

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

Alginate Dressing Application

Purpose

Wound dressing used to absorb exudate in moderate to heavily draining wounds. Some alginates act as a hemostatic so are useful in patients with bleeding tendencies Alginates are derived from brown seaweed, spun into rope or a flat dressing. They form a gel in the wound base when they come in contact with and mix with the wound exudate.

Policy

Alginate wound dressings will be applied per physician's order. Frequency of alginate dressing change per manufacturer recommendations, unless otherwise indicated per physician. Clean aseptic technique should be used.

Indications

- Partial or full thickness wounds with moderate to heavy exudate.
- Cavity or narrow wounds.
- Non-infected or infected wounds.
- Requires a secondary dressing such as hydrocolloids, transparent, composites or specialty absorption dressings.
- Red / yellow moist wound.

Precautions

- Contraindicated in third degree burns and in patients' sensitivity to this dressing or its components.
- Not for use on dry wounds or d.ry eschar.
- Can dehydrate wound bed
- Should not be used in combination with a hydrogel.

Equipment

- Disinfectant solution.
- Antiseptic hand gel.
- Normal Saline, or cleansing agent.
- 4x4s.

Policy Title:	Policy #:
ALGINATE DRESSING APPLICATION	

Cross Reference:
DRESSING CHANGE, WOUND CLEANSING

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

- Alginate dressing.
- Scissors.
- Tape.
- Secondary cover dressing.
- Non-sterile gloves.
- Trash bag.
- Linen saver.

Steps		Key Points
1. Bring equipment to patient's room. Knock on door.		
2. Provide privacy to patient, explain procedure.		
3. Prepare a clean, dry work area at bedside. Use disinfectant solution to prepare work surface.		**Optional:** Cover work surface with clean dry paper or cloth towel, to prevent contamination of supplies.
4. Place trash bag at end of bed or within easy reach of working area.		
5. Wash hands, apply gloves.		
6. Prepare / open dressing items on table: ○ If dressings need to be cut to size, use clean or sterile scissors; ○ If using alginate rope, cut appropriate size for wound; ○ Open packages and cut tape; ○ Place initials and date on a piece of tape or on the dressing.		Initial and date dressing prior to placement on patient to protect and maintain patients' dignity. When scissors are used, clean with alcohol wipe prior to and after use.
7. Reposition patient to expose area to be dressed. Avoid exposing the patient unnecessarily.		Provide privacy for patient dignity.
8. Place the linen saver or a towel under the patient.		
9. Remove soiled dressing, place it in trash bag. Note date on old bandage prior to removal.		If the alginate dressing is adherent to the wound, moisten with saline prior to removal and reassess continued use of alginate.
10. Remove gloves, wash hands, apply new gloves.		
11. Continually monitor patient throughout procedure for response to interventions and episodes of pain.		

Policy Title:	Policy #:
ALGINATE DRESSING APPLICATION	

Cross Reference:
DRESSING CHANGE, WOUND CLEANSING

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

Steps		Key Points
12. Clean wound with normal saline or prescribed cleanser.		Follow procedure for wound cleansing / irrigating.
13. Pat the tissue surrounding the wound dry with a 4x4.		
14. Assess wound characteristics to determine appropriate interventions.		
15. **Optional:** Trim or clip hair surrounding dressing securement site as needed. Use extreme caution in preventing clippings from falling in wound bed. Upon completion, remove gloves, wash hands, and apply new gloves.		Dressing removal will be less painful if hair surrounding wound site is clipped prior to application. If scissors are used, clean with alcohol after use. To prevent tissue maceration and skin stripping when tape is removed.
16. Apply liquid barrier film or moisture barrier to periwound area.		DO NOT overfill the wound and do not apply using pressure.
17. Apply alginate dressing into wound bed. Pack very lightly. Application with a gloved finger is acceptable to prevent exerting too much pressure. If needed, alginate can be placed into wound with sterile tongue blade or forceps.		Exposed wound bed will dry out and will slow or halt healing.
18. Apply secondary wound dressing. Wound dressing should cover the entire wound.		
19. Tape the dressing in place as indicated. Apply the tape without tension, gently but firmly stroking the surface to maximize adhesion. Tape should extend at least one-half inch beyond the dressing. Tape should not be pulled or stretched when applied.		Ensure adequate seal around the dressing to prevent cooling of wound bed and prevent to contamination.
20. **Optional:** Apply the tape with date and initials, to the outside of dressing if the secondary dressing is not dated.		
21. Reposition patient. Place call light within reach.		
22. Discard gloves and all used supplies in trash bag. Remove equipment,		
23. Wash hands.		
24. Discard trash bag in bio-hazardous waste receptacle.		
25. Document the dressing change in medical record.		

Policy Title:	Policy #:
ALGINATE DRESSING APPLICATION	

Cross Reference:
DRESSING CHANGE, WOUND CLEANSING

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

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Policy Title:	Policy #:
ANKLE BRACHIAL INDEX	

Cross Reference:

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

Ankle Brachial Index

Purpose

The ABI is a quantifiable, non-invasive measurement of the lower leg blood supply. It is a comparison of the systolic pressure in the upper arm to the systolic pressure at the ankle. The ankle pressure should be equal to or slightly higher than the arm pressure in the absence of arterial occlusive disease. This is a test used to rule out peripheral arterial disease, Test results determine amount of compression that can be safely applied to lower leg(s).

Policy

Measure Ankle Brachial Index (ABI) on all patients with lower extremity wounds and Lower Extremity Arterial Disease (LEAD). Perform the test every three months, or as needed due to change(s) in lower extremity vascular status, or new lower extremity non-healing wound(s).

Equipment

- Mercury or aneroid sphygmomanometer with cuff.
- Handheld Doppler device with vascular probe (5 to 10 MHz).
- Conductivity gel compatible with the Doppler device.
- Gauze or tissues.
- Towel, sheet, blanket.
- Writing instruments and paper or ABI documentation form.
- Calculator.

Precautions

FALSE-POSITIVE OR ABNORMAL READINGS

Non-compressible vessels secondary to medial calcification (very common in patients with diabetes and end-stage renal disease) If non-compressible vessels are suspected, additional testing is required.

Policy Title:	Policy #:
ANKLE BRACHIAL INDEX	

Cross Reference:

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

Steps		Key Points
1. Have the patient lie in a supine position with shoes and stockings removed for at least 10 minutes prior to obtaining blood pressure measurements.		Position with the extremities at the same level as the heart.
2. Apply the blood pressure cuff snugly on the upper arm with the lower edge of the cuff 1" (2cm to 3cm) above the antecubital fossa and palpate for the brachial pulse.		Be sure you're centered on the pulse when you take the reading; if you're off to the side, the reading will be low.
3. Apply conductivity gel over the brachial artery, then turn on the Doppler device and place the tip of the probe at the antecubital area at approximately at 45º to 60º angle to the surface of the skin.		Listen for a whooshing sound, which indicates the brachial pulse.
4. Move the probe around until the clearest arterial pulse sounds are heard and keep the probe at that position.		The higher of these two systolic readings will be used for calculation.
5. Inflate the blood pressure cuff to approximately 20mmHg above the numerical reading where the pulse sounds cease.		
6. Slowly deflate the cuff at a rate of 2mmHg per second until the first arterial pulse sound is heard. When this number is determined, deflate the cuff completely and record this systolic reading.		
7. Remove the gel from the patient's skin with a tissue.		If there is no palpable pulse, apply gel to the general area, turn on the Doppler probe, and move the probe around until the clearest arterial sound is heard.
8. Repeat the procedure in the other arm and record reading.		
9. Apply the same blood pressure cuff securely just above the ankle.		In a small percentage of patients, one of the ankle pressures will be non-detectable; use the detectable pressure for calculating the ABI.
10. Palpate the area around the medial malleolus to find the posterior tibial (PT) arterial pulse. Apply a 1c to 2c ribbon of Doppler gel to the area. Keep the probe in that position.		If arterial blood flow is normal, the pressure in the foot or ankle should be equal or only slightly higher than that of the arm.
11. Inflate the blood pressure cuff to approximately 20mmHg above the numerical reading where the pulse sounds cease.		
12. Slowly Deflate the cuff at a rate of 2mmHg per second until the first arterial pulse sound is heard. When this number is determined, deflate the cuff completely and record this systolic reading.		

Policy Title:	Policy #:
ANKLE BRACHIAL INDEX	

Cross Reference:

Approved By:	Procedure Performed By:

Originated:	Revised:	Reviewed:

Steps		Key Points
13. Palpate the dorsal arch of the same foot for the dorsalis pedis (DP) arterial pulse. Apply the Doppler gel and use the Doppler probe as before (Steps 10 to 12).		
14. Apply the blood pressure cuff to the opposite ankle and record the PT and DP pressures as before (Steps 9 to 12).		
15. To determine the ABI, divide each ankle systolic pressure (A) by the higher brachial pressure (B) to calculate the ankle-brachial index (ABI).		

ANKLE BRACHIAL INDEX: INTERPRETATION	
ABI Score	**Interpretation**
>1.3	Elevated
≥1.0	Normal
≤0.9	Lower extremity arterial disease (LEAD)
≤0.6 to 0.8	Significant Lower extremity arterial disease (LEAD)
≤0.5	Severe ischemia
≤0.4	Chronic limb ischemia (CLI) Chronic limb-threatening ischemia (CLTI)

References

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FORMS

ABI Measurement and Procedure

The ABI measurement is performed with the patient resting in a supine position. The examiner should make all arm and leg blood pressure measurements with an appropriately sized blood pressure cuff and the Doppler device. The systolic blood pressure is determined in both arms, and the ankle systolic blood pressure is determined for the right and left posterior tibial (PT) and the dorsalis pedis (DP) arteries. The ABI for each leg is determined by using the higher of the two readings from either the PT or DP arteries, or the higher of the two brachial readings. The lower ABI of the two is used for diagnostic purposes. An ABI measurement can usually be performed in less than 10 minutes (see ABI worksheet).

ABI Procedure

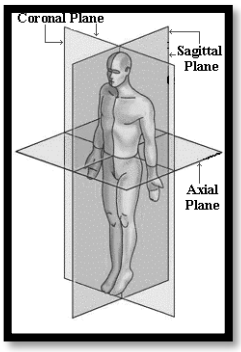
Step 1:	Have the patient lie in a supine position with shoes and stockings removed for at least 10 minutes prior to obtaining blood pressure measurements.
Step 2:	Apply the blood pressure cuff snugly on the upper arm with the lower edge of the cuff 1 inch above the antecubital fossa. Usually, the cuff that is the appropriate size for the patient's arm will also be suitable for the ankle pressure measurement. In the rare instance that upper arm and ankle pressures are markedly different, choose cuff sizes that are appropriate for each site.
Step 3:	Apply a 1cm ribbon of Doppler gel to the antecubital area. Be sure to use enough gel.
Step 4:	Turn the Doppler probe on and place it at the antecubital area at approximately a 60-degree angle to the surface of the skin. Move the probe around until the clearest arterial pulse sounds are heard and keep the probe at that position.
Step 5:	Inflate the blood pressure cuff to approx. 20 mm Hg above the numerical reading where the pulse sounds cease.
Step 6:	Deflate the cuff at a rate of 2mmHg per second until the first arterial pulse sound is heard. When this number is determined, deflate the cuff completely and record this systolic reading. Remove the gel from the patient's skin with a tissue.
Step 7:	Apply the same blood pressure cuff snugly to the ankle on the same side of the body.
Step 8:	Palpate the area around the medial malleolus to find the posterior tibial (PT) arterial pulse.
Step 9:	If this pulse is palpable, apply a 1cm to 2cm ribbon of Doppler gel to the area. If there is no palpable pulse, apply gel to the general area, turn on the Doppler probe, and move the probe around until the clearest arterial sound is heard. Keep the probe in that position. Continue inflating the blood pressure cuff as before, followed by deflation and reading (Steps 5 to 6).
Step 10:	Palpate the dorsal arch of the same foot for the dorsalis pedis (DP) arterial pulse. Apply the Doppler gel and use the Doppler probe as before (Step 9).
Step 11:	Apply the blood pressure cuff to the opposite ankle and record the PT and DP pressures as before (Steps 8 to 10).
Step 12:	Then repeat Steps 2 to 6 on the other arm. Use the ABI worksheet page to figure the patient's ABI. Measurements should be noted in the patient's medical record. Both the DP and PT arterial pressures are measured to provide a complete assessment of the extent of PAD in each limb. Additionally, some patients may have a congenitally absent dorsalis pedis pulse.

Other patients, particularly some elderly and diabetic individuals, have calcification in their arteries that prevents occlusion of flow by the pressure cuff. This will cause an abnormally high reading. Typically any reading greater than 1.50 is considered abnormal. Such patients should be referred for additional testing in a vascular laboratory.

Helpful Hints

- Follow the instructions specific to the Doppler probe you are using.
- Be sure to use enough gel.
- Use a cuff size that is right for both the arm and ankle of the patient.
- Be sure you're centered on the pulse when you take the reading; if you're off to the side, the reading will be low.
- Be aware of known diabetics with calcified vessels and abnormally high ABI.
- In a small percentage of patients, one of the ankle pressures will be nondetectable; use the detectable pressure for calculating the ABI.
- Don't be discouraged if measuring the ABI seems slow or clumsy at first. Like any procedure, the ABI becomes easier to do with practice.
- Patients with an ABI value of 0.90 or less are diagnosed as having LEAD (Lower extremity arterial Disease) and considered at increased risk for cardiovascular ischemic events. Prompt investigation and risk-reducing treatments are then warranted

Anatomical Terminology



Anatomical Planes

- Transverse / Axial
- Frontal or Coronal
- Medial or Sagittal

Fixed Anatomical Directions

Superior:	Up
Inferior:	Down
Anterior:	Front
Posterior:	Back
Medial:	Toward middle
Lateral:	Away from middle

Directions Attached to Specimen

Cephal:	Towards head
Caudal:	Towards tail
Ventral:	Towards belly
Dorsal:	Towards back

Specialized Directions for Limbs

Proximal:	Towards body
Distal:	Away from body

Specialized Directions for Hand

Palmar:	Towards palm, also volar
Dorsal:	Opposite of palmar

Specialized Directions for Foot

Plantar:	Towards bottom of foot, also volar
Dorsal:	Opposite of plantar

Specialized Directions for Forearm

Ulnar:	Towards ulna, medial
Radial:	Towards radius, lateral

Anatomical Motions

Flexion:	Sagittal plane motion, brings two segments together
Extension:	Sagittal plane motion, brings two segments apart
Abduction:	Coronal plane motion from medial to lateral
Adduction:	Coronal plane motion from lateral to medial

Pronation:	Twisting of wrist to bring thumb from lateral to medial
Supination:	Twisting of wrist to bring thumb from medial to lateral

Inversion:	Coronal plane motion moving plantar surface of foot from lateral to medial
Eversion:	Coronal plane motion moving plantar surface of foot from medial to lateral
Internal Rotation:	Rotation of hip that brings toes from lateral to medial
External Rotation:	Rotation of hip that brings toes from medial to lateral

BEST PRACTICES Arterial Ulcers

Anatomical Location

Between toes or tips of toes, over phalangeal heads, around lateral malleolus, at sites subjected to trauma or rubbing of footwear.

Wound Characteristics

- Even wound margins.
- Gangrene or necrosis.
- Deep, pale wound bed.
- Blanched or purpuric periwound tissue.
- Severe pain.
- Cellulitis.
- Minimal exudate.

Patient Assessment

- Thin, shinny, dry skin.
- Hair loss on ankle and foot.
- Thickened toenails.
- Pallor on elevation and dependent rubor.
- Cyanosis.
- Decreased temperature.
- Absent or diminished pulses.

Assess

- Assess for causative and contributing factors.
- Determine healing potential and complications to healing.
- Obtain detailed history.
- Assess pain levels and interventions.
- Perform lower extremity assessment.
- Perform ankle brachial pressure index or toe pressure index.
- Perform wound assessment for distinguishing characteristics.
- Assess for bacterial levels or infection in wound.

Treatment

- DO NOT debride stable, black eschar on ischemic extremity.
- Topical treatments should allow for frequent visualization of wound.

Debridement of Unstable Necrotic Tissue:	Enzymatic debriding ointment, hydrogel, Cadexomer Iodine, sharp debridement.
Moisture Control:	Alginate, hydro-fiber.
Dry Intact Eschar:	Open to air, alcohol, betadine paint, skin sealant.
Clean Wound Bed:	Papain urea healing ointment, hydrogel.
Periwound:	Skin sealant.
Infection:	Refer infected arterial wounds, which are limb threatening, for surgical intervention; Cadexomer Iodine, silver dressings, topical antiseptic; Systemic antibiotics are warranted when bacteremia, sepsis, advancing cellulitis, or osteomyelitis occurs.
Odor:	Topical antiseptic, charcoal dressings.
Surrounding Tissue:	Net gauze tubular bandage, or wrapping gauze for dressing securement, skin sealants.
Adjunctive Treatment:	Hyperbaric oxygen.

- Refer for vascular consult to consider surgical options.
- Pain management program.

Patient Education

- Disease and long-term effects.
- Smoking cessation.
- Avoid trauma.
- Exposure to temperature extremes.
- Proper fitting shoe wear, professional foot.

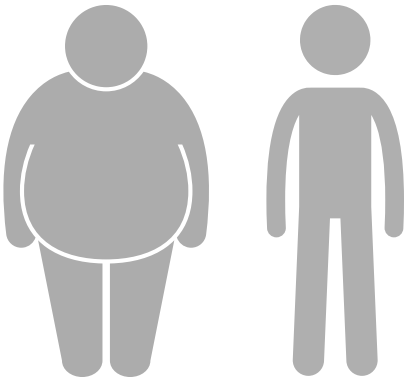
BODY FOLD MANAGEMENT

(AKA) Skin to Skin

BODY FOLDS

TWO OR MORE SKIN SURFACES IN CONTACT WITH EACH TOGETHER OFTEN RESULTS IN RUBBING (FRICTION)

Anybody type
Any age
No need to be embarrassed

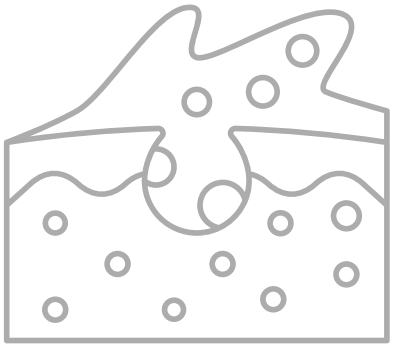


Primarily found in adults. Why? Weight of skin folds, skin to skin contact and increased perspiration
Location
Behind the neck
Under the arms, breasts, abdomen, pannus, between inner thighs
Helpful tips!
Proper hygiene. Protection for excess sweating. Clothing loose, light, breathable to minimize skin-to-skin contact and allow for adequate positioning.

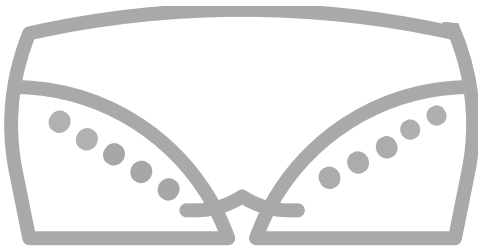
INTEGRIGINOUS DERMATITIS
(INTERTRIGO, ITD)

A cutaneous inflammatory process on opposing skin surfaces
Shape: Linear / Depth: Partial thickness wound bed
Appearance: MIRROR image of each side of the skin fold; mild erythema, erosion, oozing, maceration, crusting, including surrounding skin Complications: Excessive maceration, secondary bacterial and fungal infections Associated findings / Pain, itching, burning, odor, perspiration with or without friction.

ITD can co-exist with Incontinence-associated Dermatitis (IAD)



CANDIDIASIS
(CANDIDA ALBICANS)



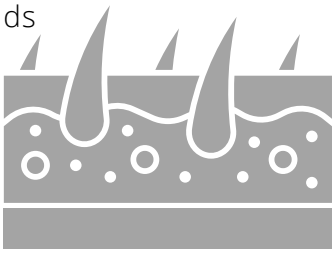
Causes / Favors moist, dark environments; induced or aggravated by heat, moisture, friction and lack of circulation, cancer patients, post-antibiotic use
Shape / Small lesions; diffuse differntial areas
Depth / Partial thickness wound
Appearance: Small, round erythematous papules and pustules; superficial wound bed; pink/beefy red; cursting or scaling; cheesy white exudate
Margins / Diffuse and irregular edges, satellite lesions (most important diagnostic feature)
Surrounding skin / Varies; may be white (maceration)
Associateds findings / Key indicator is itching and/or burning

ERYTHRASMA
(EAR-UH-THRAZ-MUH)

Chronic superficial infection of the intertriginous areas of the skin
Slowly enlarging area of pink or brown dry skin
Risk/Warm climate, overweight, diabetes
Location/Appearance Appearance /Slowly enlarging area of pink or brown, dry skin; well-demarcated, brownish-red macular papules, wrinkled with fine scales

CHAFING

CHARACTERISTICS
Partial-thickness wounds
Erythema
Painful
Bleeding
Inflammation



DIABETIC WOUND CHARACTERISTICS

Basics observations of diabetic wounds

LOCATION

Plantar aspect of foot
Over metatarsal heads
Heel
Toes
Areas of foot exposed to repetitive trauma
Pressure points over bony prominences

DISTRIBUTION

Isolated, individual lesions

SHAPE

Well defined
Round or oblong

DEPTH

Varies from shallow to deep

WOUND BED

Varies (pale or pink)
Granular
Necrosis may be present
Pale if co-existing arterial disease

SURROUNDING SKIN

Normal skin color
Callused
Dry skin
Fissures
Maceration
Erythema
Edema
Induration (hardened)
Temperature: Skin warm to touch; localized elevation of skin temperature greater than 3° F indicates increased inflammation, infection or Charcot fracture

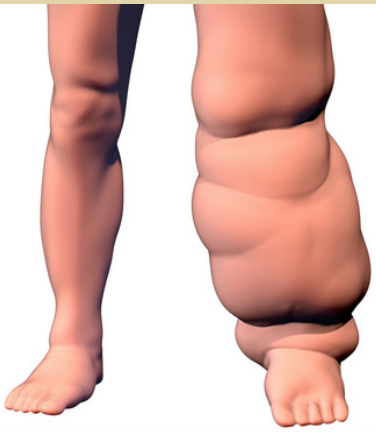
ASSOCIATED FINDINGS

Diminished or absent sensation in foot
Foot deformities
Osteomyelitis
Palpable pulses
Arterial ischemia
Warm foot

LYMPHEDEMA

SWELLING THAT DOESN'T RESOLVE OVERNIGHT MAY BE THE FIRST SYMPTOM OF LYMPHEDEMA

There can be up to 5-10 pounds of excess fluid buildup before we start to see pitting edema.
Patients may have Lymphedema even before Stemmer's sign is positive.
Lymphedema needs to be diagnosed and treated early.



Lymphedema by overload or damage to the lymphatic system

1. Congenital
2. Surgery
3. Radiation
4. Parasites
5. Chronic Venous Insufficiency when not treated becomes a type of Lymphedema

STAGES OF LYMPHEDEMA

Stage 0: Latency Stage A subclinical state where swelling is not evident despite impaired lymph transport.
Reversible

Stage 1 Mild Stage. Swelling becomes visible but reduces at night and with elevation.
Reversible

Stage 2 Moderate Stage. Swelling does not go away with elevation. Skin changes may be present.
Spontaneously irreversible

Stage 3 Lymphostatic Elephatiasis. (Severe Stage) Swelling takes on an abnormal shape and causes deformity. Significant difficulty with mobility. Skin changes present. ***Irreversible***

CELLULITIS

Myth = Stasis Dermatitis

- Active spreading infection
- Presents unilaterally
- Requires antibiotics

STASIS DERMATITIS

- Chronic inflammation caused by edema that irritates the tissues
- Typically presents bilaterally
- Not an infection
- Does not need antibiotics
- Requires compression to heal