Wounds and Wound Care: Fact and Fiction

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Disclaimer

• We do not have any conflicts of interest
• The material presented here is just an overview of wounds and wound care
• Any personal diagnostic and therapeutic questions should be directed to your personal health care provider
• A common sense practical approach to home therapies will be presented, for anything more complex, seek health care attention
Objectives

By attending this session the attendee will be able to:

1. Recognize some different types of open wounds
2. Know when to relax, and when to be concerned
3. Know which products to use and when
Agenda

• What is a Wound?
• Commonly Seen Wounds
• How wounds are treated
• When to seek professional attention
• Facts and Fiction
• What to use and not to use in an open wound?
• What’s in your Medicine Cabinet?
Wound

- An injury to living tissue caused by a cut, blow, or other impact, typically one in which the skin is cut or broken
Commonly Seen Wounds

- Abrasion
- Laceration
- Puncture
- Avulsion
- Burns
- Foot ulcer
- Leg Ulcer
- Seborrheic Keratosis
- Malignant: Melanoma, basal cell and squamous cell carcinomas
Abrasion

- When skin rubs or scrapes against a rough or hard surface; i.e. Road rash
- Usually not a lot of bleeding
- Wound needs to be gently scrubbed/cleaned to remove debris and avoid infection
Laceration

• A deep cut or tearing of the skin: eg Accidents with knives, tools, machinery

• Can cause rapid and extensive bleeding
Puncture

- Small hole caused by a long, sharp, pointy object, eg: nail/needle/toothpick
- May not bleed, but deep enough to damage deep tissues.
- Deep puncture, may need to seek medical attention, or visit emergency department to get a tetanus booster.
Avulsion

- A partial or complete tearing away of skin and the tissue beneath, eg: following accidents, explosions, gunshots
- Heavy and rapid bleeding as a result
Burns

**First Degree Burn**
- Minor burn, affects only the outer layer of the skin (epidermis).
- May cause redness and pain.

**Second Degree Burn**
- Affects both the epidermis and the second layer of skin (dermis).
- May cause swelling and red, white or splotchy skin.
- Blisters may develop, and pain can be severe.

**Third Degree Burn**
- Burn reaches to the fat layer.
- Burned areas may be black, brown or white.
- The skin may look leathery.
- Can destroy nerves, causing numbness.
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Burns

Seek emergency medical assistance for:

- Burns that cover the hands, feet, face, groin, buttocks, a major joint or a large area of the body
- Deep burns, which means burns affecting all layers of the skin or even deeper tissues
- Burns that cause the skin to look leathery
- Burns that appear charred or have patches of black, brown or white
- Burns caused by chemicals or electricity
- Difficulty breathing or burns to the airway
- Take first-aid measures while waiting for emergency assistance.
Burns

Call your doctor if you experience:

• Signs of infection, such as oozing from the wound, increased pain, redness and swelling

• A burn or blister that's large or doesn't heal in two weeks

• New, unexplained symptoms

• Significant scarring
Foot Ulcers

• In diabetes uncontrolled blood glucose levels damage peripheral nerves leading to:
  - Lack of sensation
  - Wounds from unperceived trauma

• Management:
  - Protect feet from trauma
  - Pressure relief
  - Moist wound healing
  - Callus management
Leg Ulcers

- Varicose veins lead to swelling in lower limbs
- Typical location: ankle to knee
- Minor injury causes an open wound that expands, and drains

Management:
- Control swelling
  - Leg elevation
  - Compression dressings
  - Compression stockings
- Control of infection if present
Seborrheic Keratosis

- The most common noncancerous single growth or cluster in older adults
- Appears as a brown, black or light tan growth on the face, chest, shoulders or back.
- A waxy, scaly, wart-like growth, slightly elevated appearance.
- Do not become cancerous and are not thought to be related to sun exposure, but they can look like skin cancer.
- Painless, may itch and require no treatment.
Seborrheic Keratosis

Causes/Risk factors

• The exact cause is not known.
• Very common and generally increase in number with age.
• Lesions are not contagious.
• You can develop seborrheic keratosis at any age, more likely to develop them if you're over age 50.
• More likely to have them if you have a family history of the condition.
Melanoma

- **Asymmetry**: The mole has an irregular shape.
- **Border**: The edge is not smooth, but irregular or notched.
- **Color**: The mole has uneven shading or dark spots.
- **Diameter**: The spot is larger than the size of a pencil eraser.
- **Evolving or Elevation**: The spot is changing in size, shape or texture.
Basal Cell Carcinoma

- A type of skin cancer most often occurring on areas of the skin that are exposed to the sun, such as head and neck.
- Most often present as a non-healing lesion.
Basal Cell Carcinoma

- Firm, flesh-coloured or slightly reddish bump, often with a pearly border; may have small surface blood vessels giving it a red colour
- Whitish scar where there is no reason for scarring
- Sore or pimple-like growth that bleeds, crusts over and then reappears
- Small, red scaling patch
Squamous Cell Carcinoma

• An uncontrolled growth of abnormal cells in the epidermis, the skin’s outermost layer.

• Often appear like scaly red patches, open sores, warts or elevated growths with a central depression; they may crust or bleed

• Occur in sun exposed areas
Seek Attention If…

- Many growths develop over a short time.
- The growths get irritated or bleed when your clothing rubs against them.
- Suspicious changes in your skin, i.e., sores or growths that:
  - Grow rapidly
  - Bleed
  - Do not heal

These could be signs of skin cancer
Wound Treatment

• Apply pressure and elevation to control bleeding and swelling
• Wash and disinfect to remove all dirt and debris
• Always use a sterile dressing or bandage
• Keep wounds clean and dry
• Take analgesic if experiencing pain:
  • Acetaminophen (Tylenol®)
  • Avoid aspirin/Advil® etc. as it can cause prolong bleeding
Myth 1

Fiction:
• Use Alcohol or Hydrogen peroxide to clean wounds

Fact:
• Peroxide and alcohol are antiseptics that can irritate the wound, harm skin cells and can delay the healing process
• Rinse the wound thoroughly under running water to remove debris or dirt.
• Gently cleaning with soap and water is safe and effective
Myth 2

Fiction:
• Allowing wounds to “breath” open to the air will lead to faster healing

Fact:
• Scientifically proven: A covered wound…
  • Heals faster, with less pain
  • Associated with reduced infection rates
• Dressings prevent the wound from drying out, keeping the wound moist
• A moist wound reduces the chances of a crust/scab to form
Myth 3

Fiction:
• Keep the wound as dry as possible

Fact:
• Scab closes off the wound and protects from infection
• Wounds heal faster when covered with a bandage, ensuring a clean warm moist (not wet) environment.
• Scabs can trap bacteria and prevent new cells from covering the wound, resulting in delayed healing.
• Avoid picking at scabs.
Myth 4

Fiction:
• Bacteria breed under wound dressing, increasing risk of infection

Fact:
• Cleaning the wound with soap and water, and removing soil/debris will decrease the risk of infection
• Dressing will protect the wound from contamination and speed up healing
Myth 5

Fiction:
• Itchiness may indicate that the wound is healing

Fact:
• Itchiness can be a sign of:
  • Allergic reaction to:
    • The wound dressing,
    • Any topical preparation applied to wound
  • Infection
  • Healing
Myth 6

Fiction:
• Butter and Ice help heal burn wounds

Fact:
• Butter impairs wound healing
  • Can trap heat causing damage
• Ice and ice water may further damage skin
• Apply Ice only of you have bruising or swelling
Myth 7

Fiction:
• Topical antibiotics help heal wounds

Fact:
• Topical antibiotic ointments may be helpful in preventing infection but.....
  • Can cause allergic reactions
• Only use for short periods
When To Seek Medical Attention

Seek attention if.....

• Open wound is deeper than ½ inch
  • Wound may need to be closed with skin glue, sutures, or stiches
• Bleeding...
  • Does not stop with direct pressure
  • Lasts longer then 20 minutes
  • Is the result of a serious accident
• Your last tetanus immunization was >10 years prior
• Wound is red, hot and swollen
  • Likely will require antibiotics
Signs of infection

- Signs of infection include:
  - Pain and tenderness at the affected site
  - Redness:
    - **Rash** that appears and grows quickly
  - Swelling:
    - A tight, glossy, swollen appearance of the skin
  - Discharge:
    - Thick green, yellow or brown pus; a foul odor
  - Fever: >100.4F(38.0C); chills, sweating, fatigue, dizziness, muscle aches
  - A wound that is not healing
Medicine Cabinet: Dos and Don’ts

• Topical antiseptics:
  • Eg: Iodine, mercurochrome, peroxide, alcohol
  • Probably not needed
  • Wash with soap and water alone, pad dry

• Petroleum jelly:
  • Not harmful, but messy, and may actually heal wounds faster: moist wound healing

• Toothpaste, mouthwash:
  • Absolutely not: many chemicals
  • Some mouthwash contains alcohol
Household Products: Dos and Don’ts

- **Windex®:**
  - Contains ammonia and isopropyl alcohol, may kill germs but can irritate or even burn the skin

- **Bleach:**
  - Dilute bleach has been used for years for eczema to decrease the load of bacteria on the skin
  - Role in wound care not clear
Dressings

- Dry or moist
  - Gauze
Dressing

- Film dressing
Dressing

- Non-stick
  - Paraffin impregnated
  - Non-stick
- Teflon coated
Dressing

- Hydrocolloid—protects the wound from surface from surface contamination
Dressings

- Hydrogel—maintains a moist surface to support healing
Supplies To Keep In Your Medicine Cabinet

- Bag of 4-inch x 4-inch gauze/Band aid
- Tweezers/Scissors
- Wound cleanser
- Transparent adherent film dressings
- Gel dressing
- Hydrocolloid dressing
- Foam dressing
- Antimicrobial dressing
- Medical tape
- 3-inch roll of self adherent wrap to secure dressings in locations like fingers/ toes, knees and elbow
FIRST AID KIT

- Bandage
- Adhesive tape
- Cold compress
- Alcohol
- Zip plastic bags