Wounds, dressing, bandage, fixing, injury of hands, legs

WOUND CLASSIFICATION AND ITS MANAGEMENT

WOUND It is a circumscribed injury which is caused by an external force and it can involve any tissue or organ. (surgical and traumatic/accidental).

INJURY It is caused by external noxa that causes cellular and/or tissue trauma and dysfunction. External noxa: mechanical, chemical, radiaton
or combination of them.

WOUND CLASSIFICATION AND ITS MANAGEMENT

I. Mechanical:

1. Abraded wound (vulnus abrasum)
2. Puncured wound (v. punctum)
3. Incised wound (v. scissum)
4. Cut wound (v. caesum)
5. Crush wound (v. contusum)
6. Torn wound (v. lacerum)
7. Bite wound (v. morsum)
8. Shot wound (v. sclopetarium)

II. Chemical:

1. Acid
2. Base

III. Wounds caused by radiation

IV. Wounds caused by thermal forces:

1. Burning
2. Freezing

V. Special

1. Abraded wound (v. abrasum)

- Superficial part of the epidermal layer
- Blunt trauma
- Mild
- Good wound healing

2. Punctured wound

- Sharp-pointed object
- Seems negligible

BUT

- Anaerobic infection
- Injury of big vessels, parenchimal organs, nerves
- In thorax - pneumothorax
- X-ray! –foreign body
- Wound healing process is bad.

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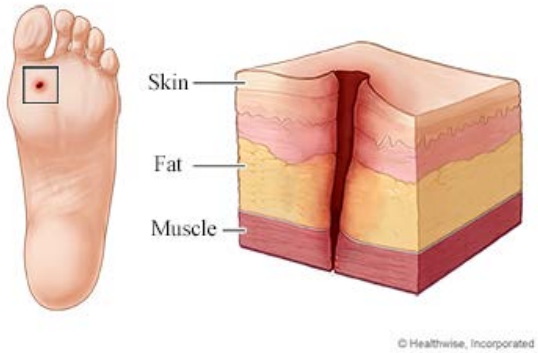

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3. Incised wound

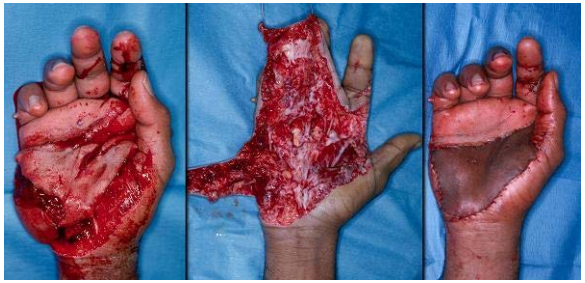
- Sharp object
- Wound edges – even, wound corner – narrowing
- No strong destruction but check the wound base
- Best healing
- Surgical wound

4. Cut wound

- Sharp object + blunt additional force
- More serious destruction
- Foreign body - textile
- Edges – even or uneven, open edges
- Bad wound healing

5. Crush wound

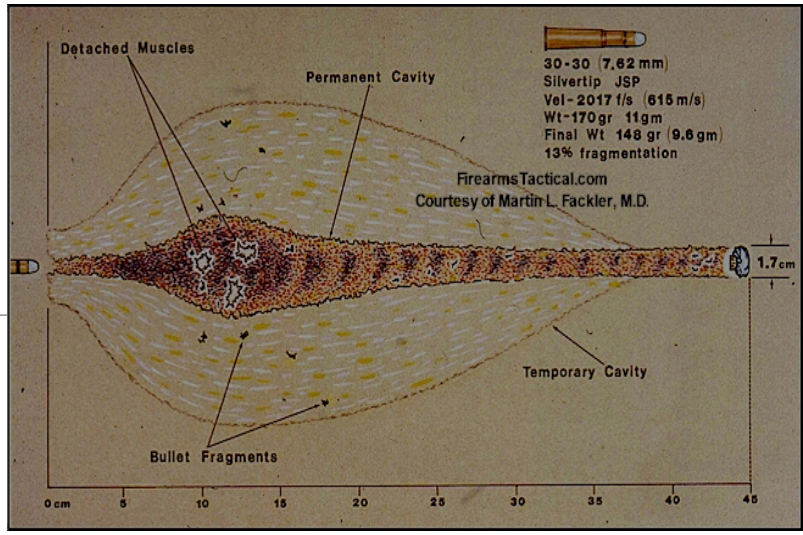
- Blunt force
- Pressure injury – connective tissue and fat
- Edges – uneven and torn
- Bleeding not remarkable
- In the wound cavity:
- blood and destructed tissue
- Wound stupor
- Bad wound healing



6. Torn wound

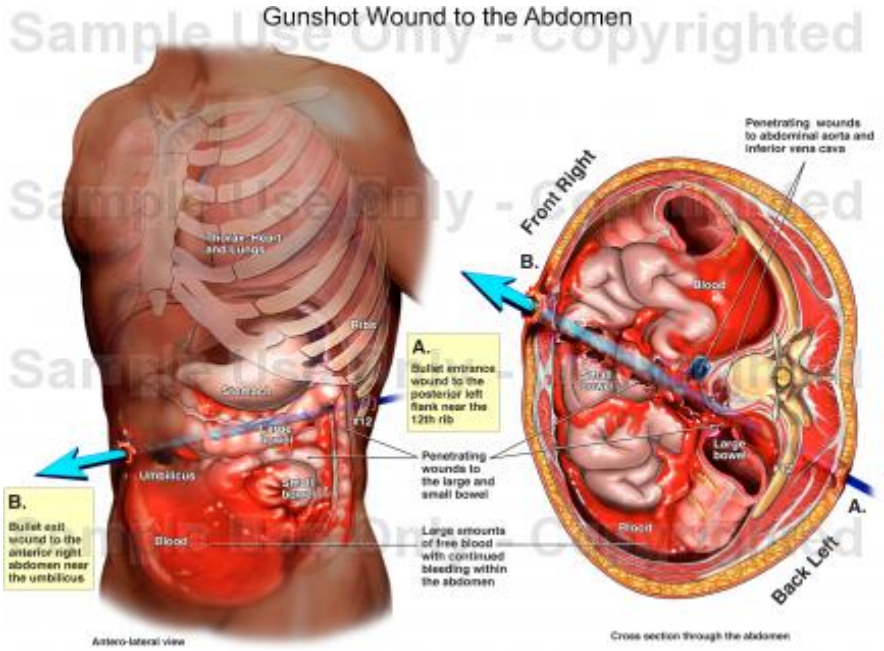
- Great tearing or pulling
- Incomplete or complete amputation
- Uneven wound edges, ragged wound wall
- Strong bleeding!
- Foreign body! Contamination
- Bad wound healing

7. Shot wound



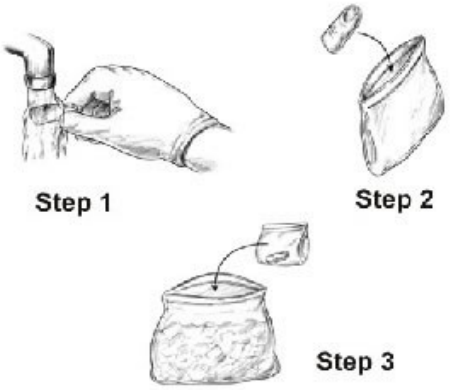
- Close - burn injury
- Foreign materials (oil, metal, smut)

Inlet smaller than outlet,
forensic issue



8. Bite wound

- Damage depends on the teeth (animal) and the bite force
- Ragged wound
- Crushed tissue
- Torn
- Puncured
- Bone fracture
- Severe infected wound
- Prevention of rabies
- Tetanus profilaxis



Amputation

- What to Do:
  - Recover the amputated part and whenever possible take it with the victim
- To care for the amputated body part:
  - The amputated part does not necessarily need to be cleaned
  - Wrap the amputated part with a dry sterile gauze or other clean cloth
  - Put in a plastic bag or other waterproof container
  - Keep the amputated part cool, but do not freeze
    - Place the bag or container with the wrapped part on a bed of ice

Basic First Aid for Wounds nursing

- What to Do:
  - Wear gloves (if possible) and expose wound
  - 1. Control bleeding
  - 2. Keep clean wounds-dressing and bandage
    - To prevent infection
    - Wash shallow wound gently with soap and water
    - Wash from the center out / Irrigate with water

- 3. Immobilise injured part of body-fixing- to prevent movement at the site of injury

Control of bleeding

- Capillary bleeding-oozing (open or closed-bruise)
- Venous bleeding- big but not pulsatile
- Arterial bleeding- pulsatile
- First aid-direct pressure (over a sterile dressing), with hand or bandage, if possible lift the arm

  -tourniquet?

DO NOT remove the blood-soaked pad

It will also remove the platelets closing the wound!

Bandaging - covers all 3 functions

Act of making effective bandage/ing has 3 parts

1. putting dressing
2. putting bandage
3. putting tape

1. Dressing

A dressing is anything designed to be in direct contact with the wound (something to cover the would directly), which makes it different from a bandage, which is primarily used to hold a dressing in place.

The purpose of a dressing is to:

- Control bleeding
- Prevent infection and contamination
- Absorb blood and fluid drainage

1. Dressing

Absorbent Pad

- This part is necessary to prevent infection and reduce “stickage”
- any absorbent material that is clean and lint free is fine

- Gauze

- Plasters-small wounds

2. Bandages

Bandage can be used to:

- Hold a dressing in place over an open wound
- Prevent or reduce swelling
- Provide support and stability for an extremity or joint-fixing

Beware of not strangulate the limb (put one or two fingers under the bandage)

2. Bandages

Gauze bandage (roller bandage) for all parts of body

Compression bandage (elastic) mostly for limbs

Triangular for limbs and head

Tubular bandages-for digits

2. Bandages

BASIC BANDAGING FORMS

Each bandaging technique consists of various basic forms of bandaging.

The following five basic forms of bandaging can be used to apply most types of bandages:

1. circular bandaging

2. spiral bandaging

3. figure-of-eight bandaging

4. reverse spiral bandage

3. Tape

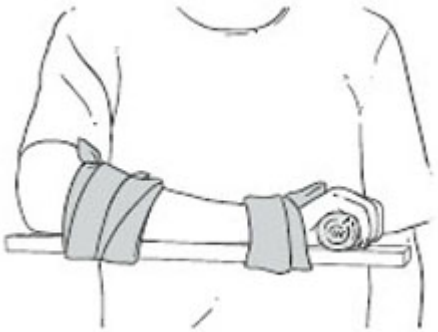
Tape to secure the bandage

Adhesive-plaster, clasp, elastic bandage

Fixing-immobilising of wound or other injury

The aim is to prevent movement at the site of injury-it could increase pain, damage, bleeding

To arrange comfortable transport to hospital



Injury of hands and legs

- superficial - as already mentioned
- soft tissue injury-ligaments and muscles
- dislocation-displacement of a bone at a joint
- fractures-break or a crack in a bone

  - open or closed

<u>What to do:</u>

- stop bleeding, prevent infection
- prevent movement at the site of injury and arrange comfortable transport to hospital
- do not let the patient anything to eat or drink (if surgery will be needed)

Injury of hands and legs

What to Look for:

- General signs and Symptoms:
  - Tenderness to touch.
  - Swelling.
  - Deformities may occur when bones are broken, causing an abnormal shape.
  - Open wounds break the skin.
  - Loss of use.

Injury of hands and legs

- Additional signs and symptoms include:
  - The **history of the injury** can lead to suspect a fracture whenever a serious accident has happened
  - The victim may have heard or felt the bone snap.

Soft tissue first aid-what to do?

- R-rest the injured part
- I- ice or cold compress
- C-compress the injury
- E- elevate the injury

Injury of hands and legs

- There are two categories of fractures:
  - Closed fracture-
    the skin is intact
  - Open fracture
    - the skin over the fracture has been damaged or broken and bone may be visible

    - the bone may not always be visible in the wound !!!
    - high risk of infecton

Open fracture

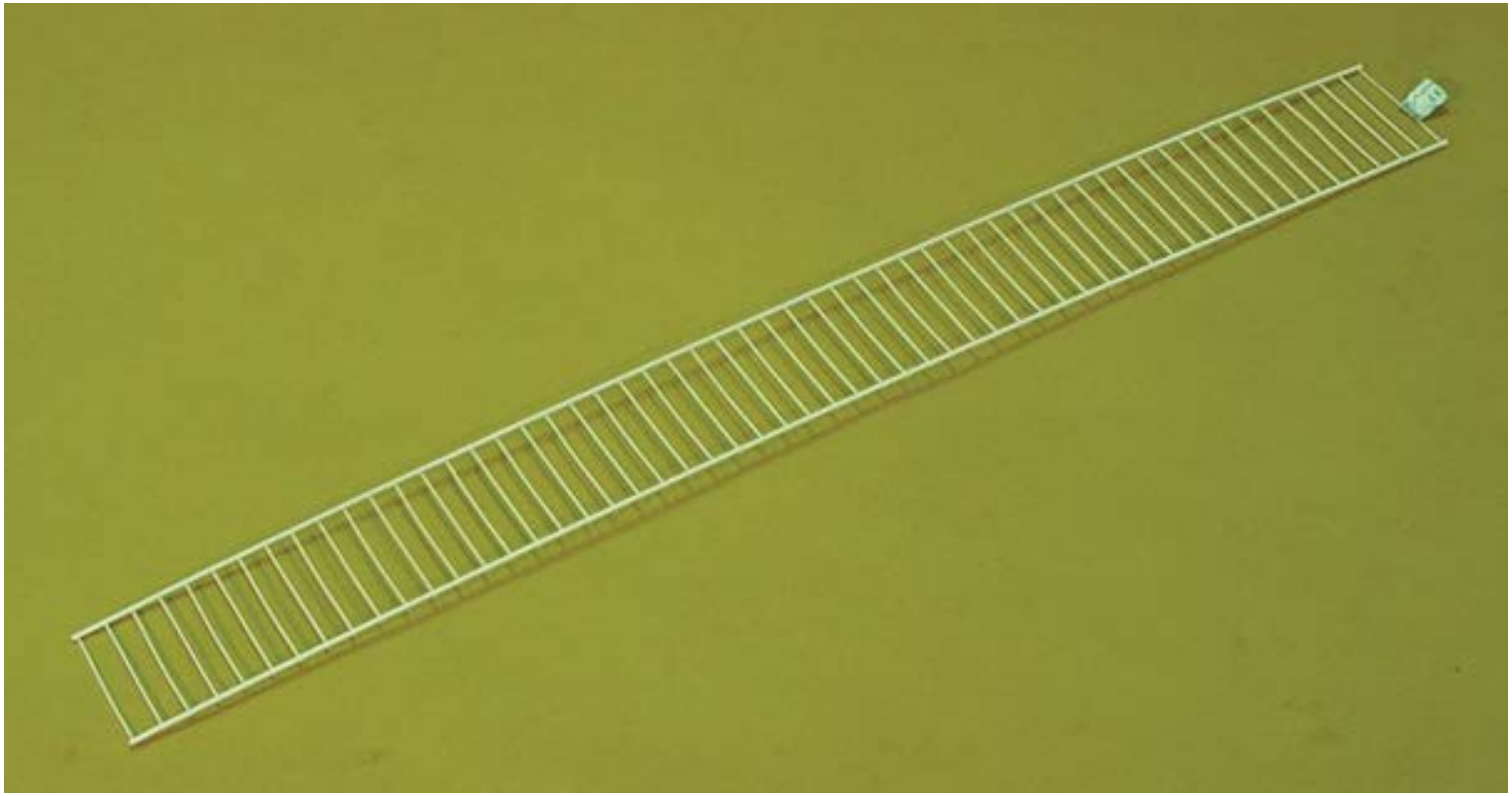
Closed fracture

Dislocation

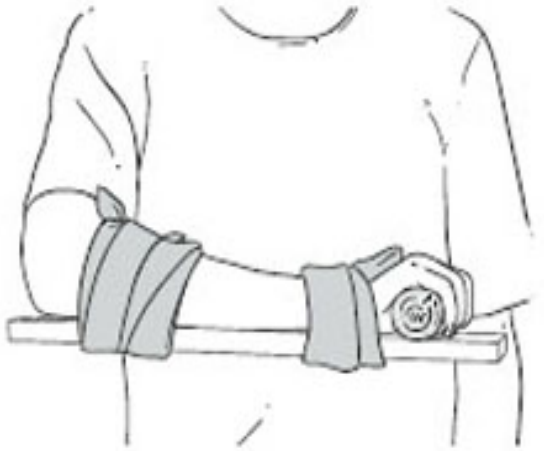
Injury of hands and legs – first aid

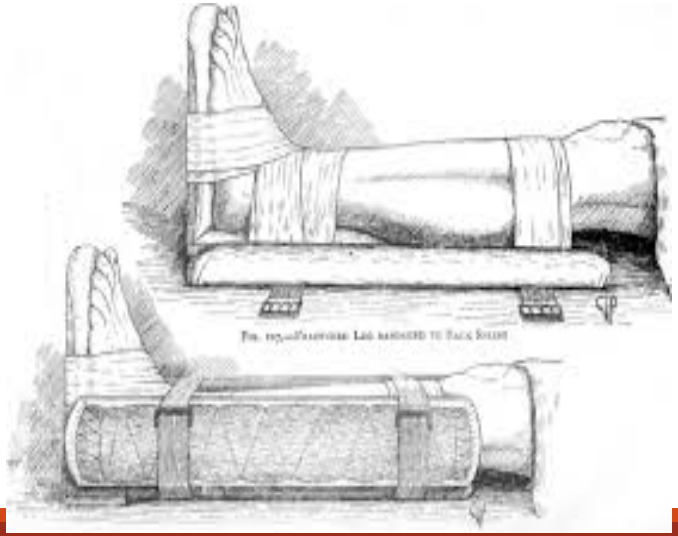
- If the fracture is open, cover the wound by sterile dressing, DO NOT remove any bone fragments or foreign bodies from the wound
- Immobilisation of broken limb – 2 joints (upper and lower to the injury) must be immobilised
- Every 15 minutes check if immobilised limb if perfused (temperature, colour)
- Raise the limb

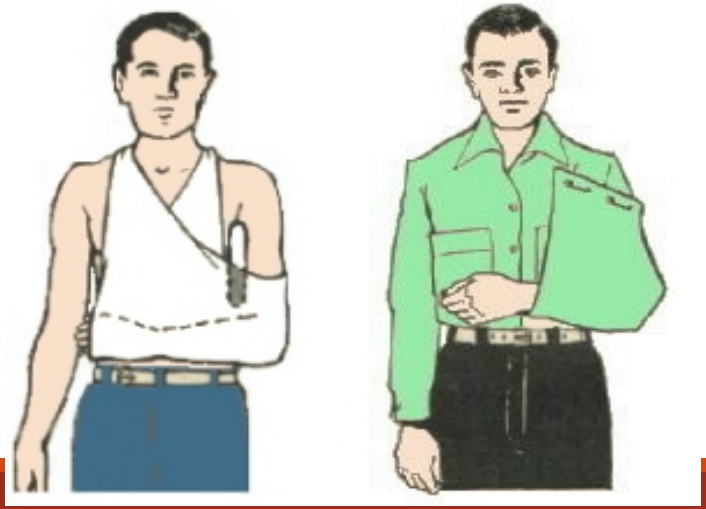
Kramer splint



Fixing –
use 2 joints /upper and lower to the injury/
use other not injured part of the body /other leg, or chest for upper extremity/







Thank you.