

- **Wound is break in continuity of soft tissues caused by trauma.**
  - **Broadly classified into two groups.**
  - **1. Closed wound**
  - **2. Open wound**
- 1. Closed wound : No break in continuity of skin or mucus membrane but underlying tissues are damaged.**

- **Contusion:** It produced by blunt objects and results in damage to subcutaneous tissues without breaking continuity of skin.
- **Bruise :** Mild degree contusions. It is due rupture of capillaries in the skin giving rise to a reddish blue or purple colouration of skin
- **Haematoma:** Collection of blood in abnormal cavity. It is seen subcutaneously or submucously.

- **Open wounds :- These are the open wounds**
  - (1) Incised wounds : - Caused by sharp cutting instruments**
  - (2) Lacerated wounds : Wounds appears torn and uneven edges. It may be more or less extensively injured.**
  - (3) Punctured wounds : This wounds caused by sharp pointed objects like nails.**

- **Penetrating wound** : These are deep wounds communicating with

**Perforating wound** : This wound has two opening, one entrance

and other exit. Eg. Wounds of thorax, abdomen etc. Cavities

- **Gunshot wound**: Caused by various types of firearm
- **Abrasions** : In which superficial layers of skin are only removed.
- **Avulsions**: Avulsion is wound in which actual loss of tissue.

- **Aseptic wound : Surgical wound made under aseptic condition**
- **Contaminated wounds : It is wound in which micro-organism are present.**
- **Infected wounds: In which micro-organism have invaded the tissues and have started multiplying and produce toxins.**

- **Granulating wounds:** - Which is showing tendency to heal.
  - **Ulcerative wounds:** has no tendency to heal
- method of wound healing**
- **First intension healing (Primary union).**
  - **The narrow space between the edges of the wound is filled with blood clot.**

- **The blood capillaries and fibroblast grow into this from edges and healing of wound completed 5-15 days.**
- **In first intension of healing very little scar tissue is formed.**
- **3<sup>rd</sup> day proliferating capillaries appear in the wound.**
- **4<sup>th</sup> day fibroplasia is also evident.**

- **2. Second intension of healing : ( healing by granulation)**
- **It is by replacement of tissue.**
- **It happens in extensive loss of tissue and edges of wound are widely separated.**
- **The granulation tissue consisting of budding capillaries and fibroblast grow from edges and bottom of wound to fill the gap.**



- **The granulation tissue is highly vascular.**
- **It is called granulation tissue because of the granular appearance presented numerous blood capillaries.**
- **The capillaries grow up and anastomose with each other forming a network.**

- The fibrous tissue also proliferate and fibres are interlaid among the capillaries.
- With the growth of fibrous tissue and capillaries coming up to surface of wound, the surface epithelium also grows from its borders and makes healing complete.
- At later stage the fibrous tissue contracts, causing constriction obliteration of most of the newly formed capillaries, thereby giving the characteristic pale colour of scar tissue.
- Healing by second intention takes 14 to 21 days.

- **Mixed intention healing : Healing partly by first intention and partly by second intension.**
- **This happens when a sutured wound has partially disrupted.**