

#### **4. Third intension of healing : (Healing by secondary sutures)**

- **Third intension of healing takes place when the granulating surfaces of an extensive wound, which may otherwise heal only by second intension, are united by sutures so as to bring about quicker healing.**

#### **5. Healing under scab: This healing occurs in superficial wounds like abrasions.**

- **The exudate present in the wound dries up and forms a scab.**
- **Underneath this scab the healing process takes place and when it is complete the scab automatically separates and is cast off.**

## **Factor affecting delayed wound healing**

- 1. Bacterial infection**
- 2. Foreign bodies in the wound- foreign bodies increases exudation and delays the reparative process.**
- 3. De-vitalisation of tissues: Devitalized tissues provide good media for bacterial growth.**

4. **Desiccation of tissues: Due to prolong exposure to air causes devitalization and delays healing and shows poor reparative capacity.**
5. **Hematomas and serum collections: Provide good media for bacterial growth.**
6. **Improper apposition of tissues and dead space etc :**  
**If there is a wide gap between the edges , healing is delayed.**
7. **Inadequate blood supply**

- 7. Presence of malignant neoplastic tissue.**
- 8. Lack of immobilization : Frequent movement of the wounded area causes rupture of newly formed granulation tissue and thereby delays healing.**
- 9. Chemical and mechanical trauma delays wound healing.**
- 11. Old age : Wound healing progresses slowly in animals of advanced**

- 12. Malnutrition : specially protein deficiency delays wound healing.**
- 13. Vitamin C deficiency: necessary for formation of intercellular substance and maturation of pre-collagen of connective tissue.**
- 14. Vitamin K-deficiency : It is Concerned with coagulation of blood. Deficiency of Vitamin K predisposes to bleeding and formation of hematoma.**

**15. Deficiency of other vitamin : Vitamin A, D, Thiamin, riboflavin, pantothenic acid, etc. also**

**cause delayed healing of wound.**

**16. Dehydration, water-logging, oedema etc. : are the other factors that might delay the healing**

**of wound.**

# BURNS AND SCALD

- Thermal injuries – Burns and scald
- An injury caused by hot solids, flame are burn.
- An injury caused by hot liquids or steam are scald.
- The degree of injury depends on the temperature of the object and its duration of contact with the body.



- A scald is likely to be more severe than a burn because hot liquid may penetrate deeper into tissue.

**Classification : Burns are divided into three types according to thickness of tissue involved.**

**First degree burns : involving only epidermis.**

**Second degree burns : thickness of skin is involved more or less completely.**

**Third degree burns : in which deeper tissues like subcutaneous fat or muscles are involved .**

**Symptoms: Physical symptoms :- The appearance of burnt area depends on degree of burns.**

**First degree burns : Diffuse swelling and sometimes vesicle formation. The vesicles subside within about a week.**

**Second degree burn : formed by the exudation of plasma. The exudation may continue for 36 to 48 hours. The blisters are very painful.**

**Third degree burn : The complete thickness of skin plus subcutaneous fat or muscles or deeper tissue are involved. The dead skin appears brownish black and leathery.**

- Surrounding area of burn shows oedema and hyperaemia.
- During healing dead portions slough off.
- Sloughing is slow process.
- The sloughed tissues are replaced by scar tissue which appears thin, shining and hairless, if hair roots are damaged.

- Systemic reactions: There is intense pain and thirst.
- A varying degree of toxæmia is present.
- Shock develops if lesions are extensive and severe.
- Septicæmia may develop due to secondary bacterial infection.

- Prognosis: Depends on extends of injury.
- Shock develops if more than 4% of the skin surface is affected by burn.
- Prognosis is unfavourable if more than 50% of the skin surface is involved.
- Treatment: 1<sup>st</sup> treat the dehydration and shock if present.
- Local treatment consists of applying emollients.
- Blister may be ruptured to drain the exudate.

- If the skin surface is eroded, the exposed areas are protected by astringent, antiseptic and anodyne preparation.
- Local analgesics may be incorporated in these ointments to control pain.
- Antibiotic ointments and antibiotics systemically used infections.