

Tikrit university
College of Nursing
Clinical Nursing Science



Fourth Stage/ 2025
Critical Care Nursing
(Burns)

By Dr.Mohammed M.Abdullah

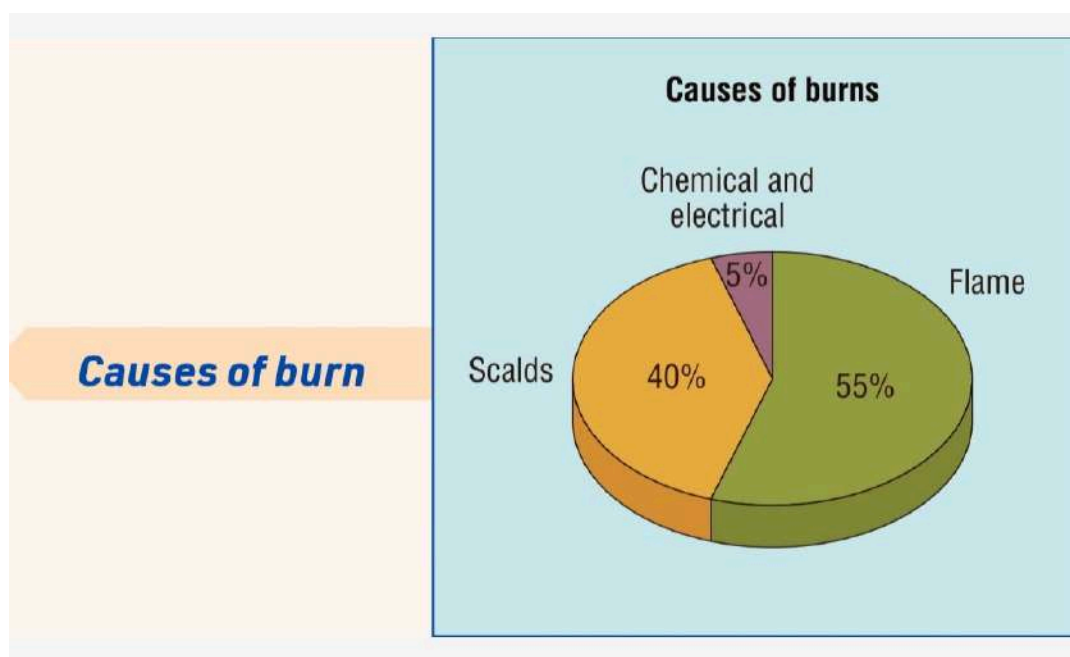
Introduction

Burns are considered a global public health problem, causing an estimated 180,000 deaths annually. The majority of these cases are in low- and middle-income countries.

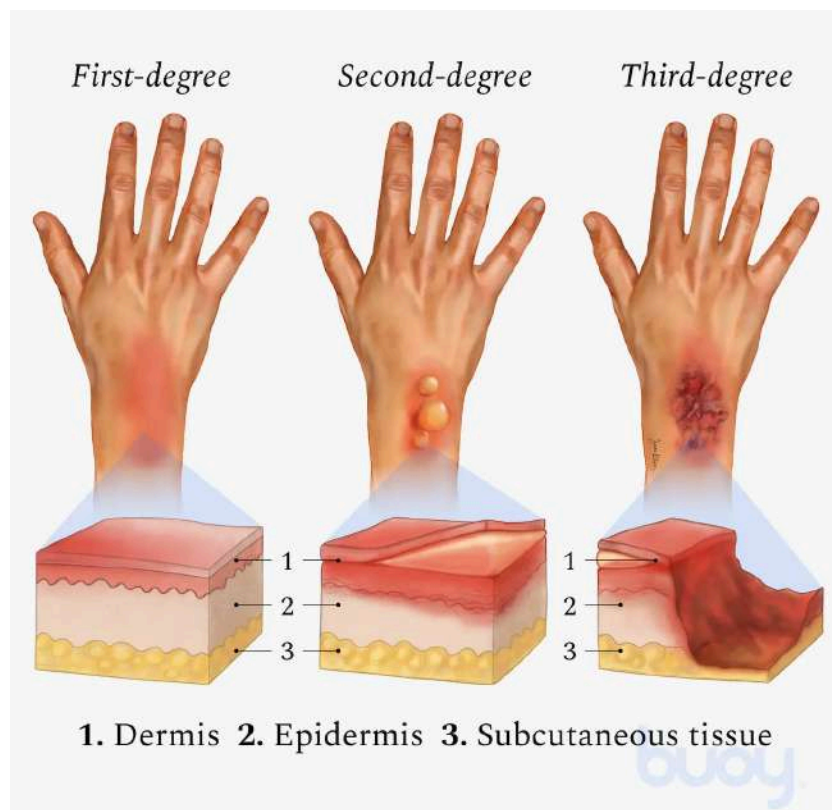
Non-fatal burns are a major cause of morbidity, including long-term hospitalization, disfigurement, and disability. (WHO)

Definition of burns:

Tissue damage due to exposure to heat, e.g. flame, the heat of the sun for a long time, any other radiation, a chemical substance, or an electrical current.



Types of burns :



Pathophysiology of burn:

Damage to the normal epidermal barrier allows:

- *Bacterial invasion
- *External fluid loss
- *Impaired thermoregulation

Classification of burns:

Burns are classified into:

1. Minor burns are:

First-degree burns.

Second degree burns covering < 10% of the body.

2. Moderate and severe burns are:

Any burns on the hands, feet, face or genitals. Second-degree burns covering > 10% of the body.

Third-degree burns covering > 1% of the body

Treatment of burns

Burn treatment includes a Sequence of procedures including:

1.first aid.

2. Airway, Breathing, Circulation (ABC)and

Fluid replacement therapy.

The commonest fluid resuscitation formula is the Parkland (Baxter) formula.

A volume of $4\text{mL/kg} \times \% \text{ TBSA}$ is given during the first 24h. Half is given in the first 8h after the burn injury occurs, and the remaining half is given over the next 16h.

3. Analgesia.

4. Prophylactic antibiotics.

5. prophylaxis Tetanus.

6.Nutrition.

7.Local care for the burn.

Nursing Care Plan (Nursing Diagnosis and Intervention)

1. Ineffective Airway Clearance and Impaired Gas Exchange

- a) Monitor O₂, ABG, chest x-ray, assess respiratory rate, character, and depth, breath sounds, LOC.
- b) Administer 100% humidified oxygen as ordered
- c) Turn every 2 hours if appropriate to mobilize secretions
- d) Elevate head of bed.

2. Deficient fluid volume secondary to fluid shifts

- a) Monitor: vital signs and urine output every hour, mental status
- b) Restore intravascular volume. Urine output closely reflects renal perfusion
- c) daily weight and hourly I/O measurements, Evaluate fluid loss and replacement

3. Ineffective tissue perfusion related to impaired vascular circulation

- a) Assess peripheral pulses, capillary refill, temperature, or pain sensation
- b) Elevate upper extremities, elevate lower extremities on pillows.

Nursing Care Plan (Nursing Diagnosis and Intervention)

4. Acute pain related to burn trauma

- a) Assess location, quality, and severity of pain
- b) Administer analgesic as ordered; administer IV

c) Use non-pharmacological pain-reducing methods (distraction, relaxation).

5. Risk for infection related to loss of skin

a) Assess temperature, monitor WBC, burn wound healing, and invasive catheter sites

b) Use appropriate protective isolation; provide wound care with antimicrobial agents.

c) Restrict visitors.