

- **First Line management in Burns and Trauma**

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- **75% of all burn injuries result from the victims own action.**

- About 20% of burns occur in children younger than age 5, and most of these are scald burns from hot liquids.
- About 60% of burns occur in the 18- to 64-year-old age group.
- About 10% of burns occur in older adults, mostly scald burns from hot liquids.
- Men are twice as likely to have burn injuries as women

Types of Burns

- **Heat burns** (thermal burns) are caused by fire, steam, hot objects, or hot liquids. Scald burns with hot liquid are the most common burns to children and older adults.
- **Electrical burns** are caused by contact with electrical sources or by lightning.
- **Chemical burns** are caused by contact with household or industrial chemicals in a liquid, solid, or gas form.
- **Radiation burns** are caused by the sun, tanning booths, sunlamps, X-rays, or radiation therapy for cancer treatment.

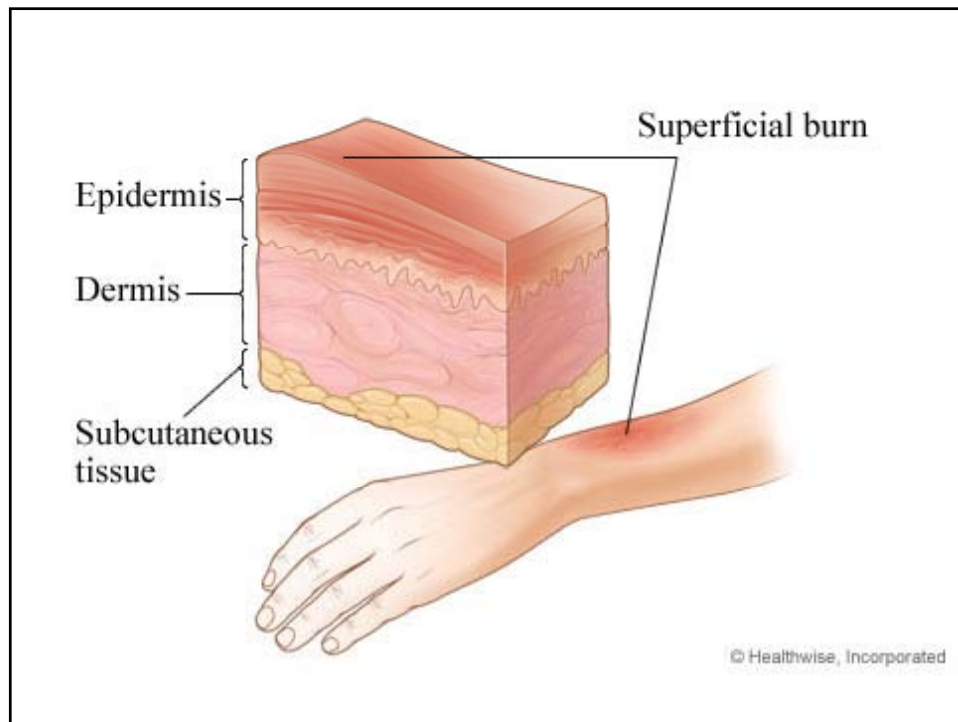
People predisposed to burns

If you work with chemicals, electricity or hot substances (fire, heat, steam).

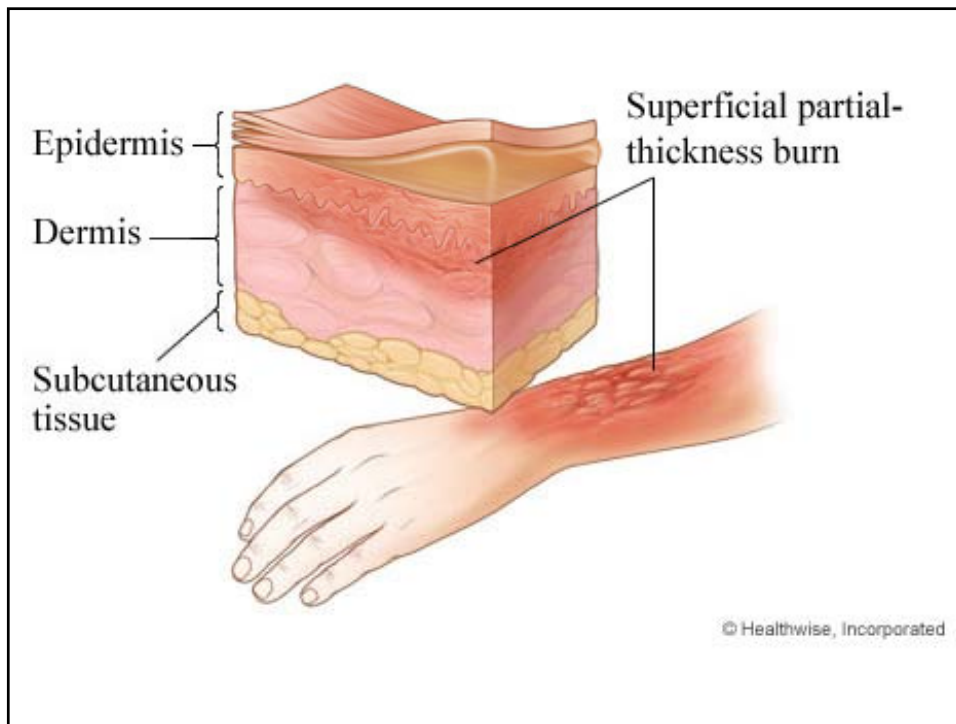
- The elderly and children are more likely to sustain burns. They may have a delayed reaction to exposure to hot substances or chemicals. The elderly may suffer from memory problems with advancing age and be more at risk for burns.
- If you have an increased level of alcohol consumption.
- If you have a psychiatric disorder, you may be at increased risk.

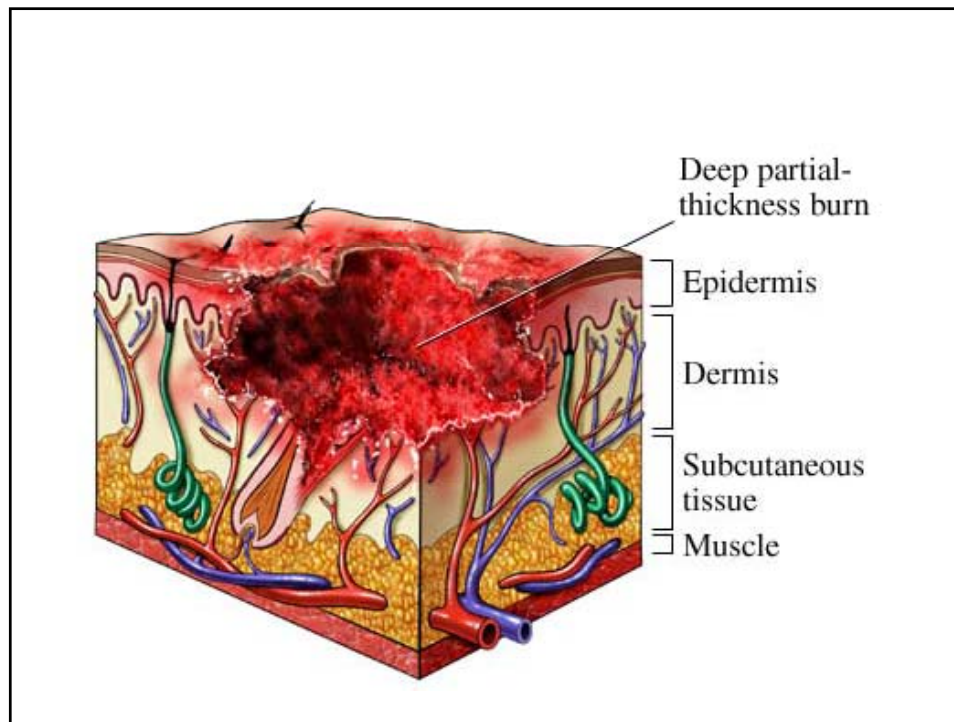
Degrees of Burns

- **First-degree burns**, the mildest of the three, are limited to the top layer of skin:
- A first-degree burn is a minor red burn of the top layer of skin, such as a mild sunburn. The burned skin may hurt and be slightly swollen, and it may make a person feel slightly feverish.
- *Signs and symptoms:* These burns produce redness, pain, and minor swelling. The skin is dry without blisters.
- *Healing time:* Healing time is about 3 to 6 days; the superficial skin layer over the burn may peel off in 1 or 2 days.

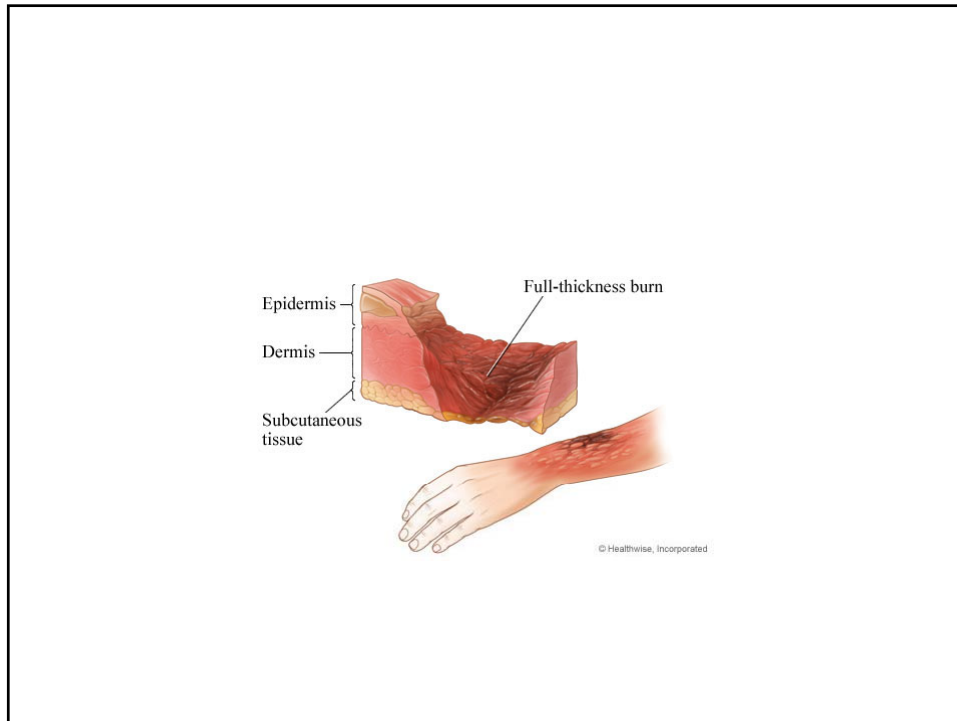


- **Second-degree burns** are more serious and involve the skin layers beneath the top layer:
- They are caused by heat, radiation, electricity, chemicals, or friction. These burns are also called partial-thickness burns.
- *Signs and symptoms:* These burns produce blisters, severe pain, and redness. The blisters sometimes break open and the area is wet looking with a bright pink to cherry red color.
- *Healing time:* Healing time varies depending on the severity of the burn.





- **Third-degree burns** are the most serious type of burn and involve all the layers of the skin and underlying tissue:
- Third-degree burns, also called full-thickness burns, injure all the layers of the skin as well as the fatty tissue beneath them. These are serious burns that can affect the skin's ability to grow back.
- *Signs and symptoms:* The surface appears dry and can look waxy white, leathery, brown, or charred. There may be little or no pain or the area may feel numb at first because of nerve damage.





Rule of Nine

- "rule of nines" describe the extent of the burn or area of the burn expressed in percent of the total body surface for an adult.
 - upper limb is 9%
 - head and neck is 9%,
 - anterior trunk (chest and abdomen) is 18%, the posterior trunk (back) is 18%,
 - each thigh is 9%, and each leg (not including thigh) is 9%,
 - perineum is 1%.
- Burns need to be treated in the hospital if they are **more than 20%**

Treatment & Prevention of Burns

PREVENTION and PREVENTION

Prevention

- Put smoke alarms in your home.
- Have a professional electrician check the wiring in your home at least once every 10 years.
- Clean your chimney and fireplace once a year.
- Learn how and when to use a fire extinguisher. Keep one or more in your home.
- All flammable material should be avoided and placed in a secure area

- Never leave candles unattended.
- Store matches and lighters in a locked cabinet or where children can't reach them.
- If you smoke, don't smoke in bed.
- Cooking fires are the leading cause of house fires. Put out a small fire on a stove by sliding a lid over the flames.

First Line Management

- Wrapping with a large cloth to put out the fire.
- Cold water ,not ice, to reduce pain.
- Apply topical cream.
- Hospitalization if burns area is more than 20%
- Severe 2nd and third degree will need surgical interference.
- Burns of face, hands, genital area and feet are considered major.

Trauma Management

- *Use your mind to protect your body.*

Trauma

- Injury is the leading cause of death among children and teens.
- The most frequent causes of these injuries are motor vehicle crashes, violence, falls, sports and recreation.
- *Most injuries are preventable!*

- The home is the second most common location of unintentional fatal injuries.
- The home is the site of approximately 20% of all injury death.
- The top five leading causes of unintentional home injury death are falls, poisoning, fire/burn, choking/suffocation, and drowning; together these causes account for 90% of all unintentional home injury deaths. Yet the majority of unintentional home injuries do not result in death.

- Buckle up.
- Drive safe and sober.
- Avoid violent situations.
- Lower your risk of falling.
- Wear a helmet.
- Check the water before you dive.

Trauma Management

- **A:Airway:** Make sure no airway obstruction by tongue or a foreign object.
- **B:Breathing:** Make sure that the victim is breathing on his own
- **C: Circulation:** Feel the pulse

- In case of cardiac arrest: cardiac massage with ventilation.
- In Case of fractures: Stabilization to avoid pain and further injury mainly blood vessels and nerves.
- Bleeding from open wounds is treated by compressive dressing.
- Good assessment in a hospital to rule out major injuries.