

## 1 Chapter 24 Burns

### 2 Burns

- Burns account for over 10,000 deaths/year.
- Burns are the most \_\_\_\_\_ and painful injuries.
- A burn occurs when the body receives more \_\_\_\_\_ energy than it can absorb.
  - Sources of this energy include heat, toxic chemicals, and electricity.
- Remember to perform a complete \_\_\_\_\_ on burn patients for other injuries.

### 3 Complications of Burns

- When a person is burned, the skin that acts as a \_\_\_\_\_ is destroyed.
- Burns to the airway are of significant importance.
- Circumferential burns of the chest can compromise \_\_\_\_\_.
- Circumferential burns of the extremity can lead to neurovascular compromise and irreversible \_\_\_\_\_.

### 4 The Burn Victim is at Risk For:

- \_\_\_\_\_ : most deaths from burns are caused by infection, days or weeks later
- \_\_\_\_\_ : the body is unable to maintain body temp; even in hot weather
- Hypovolemia: due fluid loss from blisters and swelling
- Shock: may be respiratory, hypovolemic, or septic

### 5 Determining Burn Severity

- What is the \_\_\_\_\_ of the burn?
- What is the \_\_\_\_\_ of the burn?
- Are any critical areas involved?
  - Face, upper airway, hands, \_\_\_\_\_, genitalia
- Are there any preexisting medical conditions or other injuries?
- Is the patient younger than 5 years or older than 55 years of age?

### 6 Classifications of Burns

- \_\_\_\_\_ (1st Degree)
- \_\_\_\_\_ Thickness (2nd Degree)
- \_\_\_\_\_ Thickness (3rd Degree)

### 7 Superficial Burns

- 1st degree burns
- Involve only \_\_\_\_\_ skin layer
- Characterized by \_\_\_\_\_ of the skin

### 8 Partial Thickness Burns

- 2nd degree burns
- Involve the \_\_\_\_\_ and some portion of the dermis
- Characterized by the formation of \_\_\_\_\_

## 9 Full Thickness Burns

- 3rd degree burns
- Extend through \_\_\_\_\_ layers of the skin
- Characterized by \_\_\_\_\_
  - Black or dark brown and leathery

## 10 Extent of Burns

- Can be estimated using the rule of \_\_\_\_\_
- Divides the body into sections, each representing approximately 9% of the total body surface area
- Proportions differ for infants, \_\_\_\_\_, and adults

## 11 Extent of Burns (Rule of 9's)

- Used to determine percent of body surface that is burned (TBS)

Area	Adult	Child	Infant
• Head	9%	12%	18%
• Arms	9%	9%	9%
• Torso (front)	18%	18%	18%
• Torso (back)	18%	18%	18%
• Genitalia	1%	1%	1%
• Legs	18%	16.5	13.5%

## 12 Extent of Burns (Rule of 9's)

## 13 Rule of Palm (Palmer Method)

- The size of the patient's \_\_\_\_\_ is roughly equal to \_\_\_\_\_ % of Total Body Surface (TBS)
- Used when burns are \_\_\_\_\_ about the body

## 14 Critical Burns (1 of 2)

- Full-thickness burns involving \_\_\_\_\_, feet, face, upper airway, genitalia, or circumferential burns of other areas
- Full-thickness burns covering more than \_\_\_\_\_% of total body surface area
- Partial-thickness burns covering more than \_\_\_\_\_% of total body surface area
- Burns associated with \_\_\_\_\_ injury

## 15 Critical Burns (2 of 2)

- Burns complicated by \_\_\_\_\_
- Burns on patients younger than \_\_\_\_\_ years old or older than \_\_\_\_\_ years old that would be classified as moderate on young adults
- Burns involving complications, diabetes, or other injuries or illnesses.

## 16 Moderate Burns

- 3rd degree burns of \_\_\_\_\_ to \_\_\_\_\_ % TBS excluding face, hands, feet, or genitalia.
- 2nd degree burns of \_\_\_\_\_ to \_\_\_\_\_ % TBS.
- 1st degree burns of \_\_\_\_\_ to \_\_\_\_\_ % TBS.

## 17 Minor Burns

- Full-thickness burns involving less than \_\_\_\_\_% of the total body surface area
- Partial-thickness burns covering less than \_\_\_\_\_% of the total body surface area
- Superficial burns covering less than \_\_\_\_\_% of the total body surface area

## 18 Chemical Burns

- Occur whenever a toxic substance contacts the body
- \_\_\_\_\_ are particularly vulnerable.
- Fumes can cause burns.
- The severity of the burn is directly related to the:
  - \_\_\_\_\_ of chemical
  - Concentration of the chemical
  - \_\_\_\_\_ of the exposure
- To prevent exposure, wear appropriate gloves and eye protection.

## 19 Care for Chemical Burns

- Remove the chemical from the patient.
- If it is a powder chemical, \_\_\_\_\_ off first.
- Remove all contaminated \_\_\_\_\_.
- Flush burned area with large amounts of water for about \_\_\_\_\_ to \_\_\_\_\_ minutes.
- Transport quickly.

## 20 Electrical Burns (1 of 2)

- The human body is a good \_\_\_\_\_.
- The type of electric current, magnitude of current, and voltage have effects on the seriousness of the burn.
- Make sure the \_\_\_\_\_ is off before touching the patient.
- There will be \_\_\_\_\_ wounds (an entrance and an exit wound) to bandage.
- Transport the patient and be prepared to administer CPR.

## 21 Electrical Burns (2 of 2)

## 22 Inhalation Burns (1 of 2)

- Can occur when burning takes place in \_\_\_\_\_ spaces without ventilation
- Upper airway damage is often associated with the inhalation of superheated \_\_\_\_\_.
- Lower airway damage is more often associated with the inhalation of \_\_\_\_\_ and particulate matter.

## 23 Inhalation Burns (2 of 2)

- You may encounter severe upper airway swelling, requiring intervention immediately.

- Consider requesting \_\_\_\_\_ backup.
- The combustion process produces a variety of \_\_\_\_\_ gases.
- Carbon monoxide intoxication should be considered whenever a \_\_\_\_\_ of people in the same place all report a headache or nausea.

## 24 Radiation Burns

- Potential threats include:
  - Incidents related to the use and transportation of \_\_\_\_\_ isotopes
  - Intentionally released radioactivity in \_\_\_\_\_ attacks
- You must determine if there has been a radiation exposure and then whether ongoing exposure continues to exist.

## 25 3 Types of Ionizing Radiation

- \_\_\_\_\_ : Little penetrating energy, easily stopped by the skin or a single piece of paper
- \_\_\_\_\_ : Greater penetrating power, but blocked by simple protective clothing
- \_\_\_\_\_ : Very penetrating, easily passes through the body and solid materials
  - Most ionizing radiation accidents involve gamma radiation, or x-rays

## 26 Management of Radiation Burns (1 of 2)

- \_\_\_\_\_ yourself
- Patients with a radioactive source on their body must be initially cared for by a \_\_\_\_\_ responder.
- \_\_\_\_\_ open wounds.
- Notify the emergency department.

## 27 Management of Radiation Burns (2 of 2)

- \_\_\_\_\_ the radioactive source and the length of the patient's exposure to it.
- Limit your duration of exposure.
- Increase your \_\_\_\_\_ from the source.
- Attempt to place \_\_\_\_\_ between yourself and the sources of gamma radiation

## 28 Emergency Care for Burns (1 of 2)

- Follow proper BSI precautions.
- Move the patient \_\_\_\_\_ from the burning area.
- Stop the \_\_\_\_\_ process
- Dry, sterile, loose dressing and bandaging
- Give oxygen if the patient has a critical burn.
- Protect from \_\_\_\_\_ ; regardless of the ambient temperature

**29**  **Emergency Care for Burns (2 of 2)**

- Always look in \_\_\_\_\_ for soot or blisters
- Prevent body heat loss.
- Rapidly estimate the burn's severity.
- Check for traumatic injuries.
- Treat the patient for \_\_\_\_\_ .
- Provide prompt transport.
- Transport to a \_\_\_\_\_ center if critical

**30**  **Treatment Tips for Burns**

- Use no types of gels or other \_\_\_\_\_ unless authorized by medical control or protocols
- Do not use \_\_\_\_\_ bandages due to swelling
- Sterile sheets (burn sheets) work well for large burn areas
- ALWAYS examine the \_\_\_\_\_ and throat

**31**  **Functions of Dressing and Bandaging for Burns**

- Control \_\_\_\_\_
- Protect the wound
- Prevent \_\_\_\_\_

**32**  **Pediatric Needs**

- Burns to children are considered \_\_\_\_\_ serious than burns to adults.
- Children have more \_\_\_\_\_ area relative to body mass than adults.
- Many burns result from \_\_\_\_\_ .
- Report all suspect cases of abuse to the authorities.