Management of Burns

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The burns patient has the same priorities as all other trauma patients.

1. Assess:

- Airway
- Breathing: beware of inhalation and rapid airway compromise
- Circulation: fluid replacement
- Disability: compartment syndrome
- Exposure: percentage area of burn

2. Essential management points:

- Stop the burning
- ABCDE
- Determine the percentage area of burn (Rule of 9's)
- Good IV access and early fluid replacement.

3. The severity of the burn is determined by:

- Burned surface area
- Depth of burn
- Other considerations.

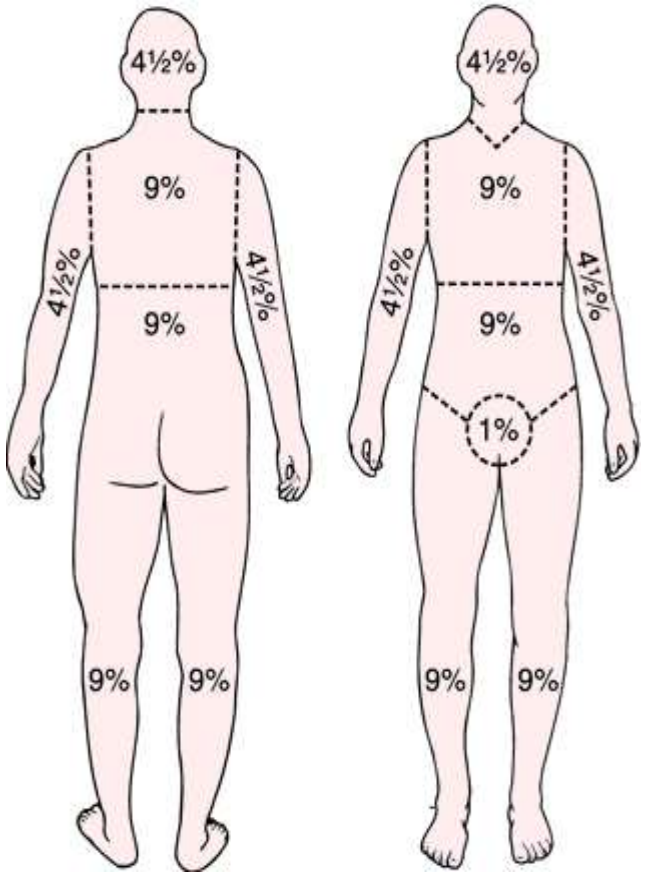
Caution 

- ✓ *Morbidity and mortality rises with increasing burned surface area.*

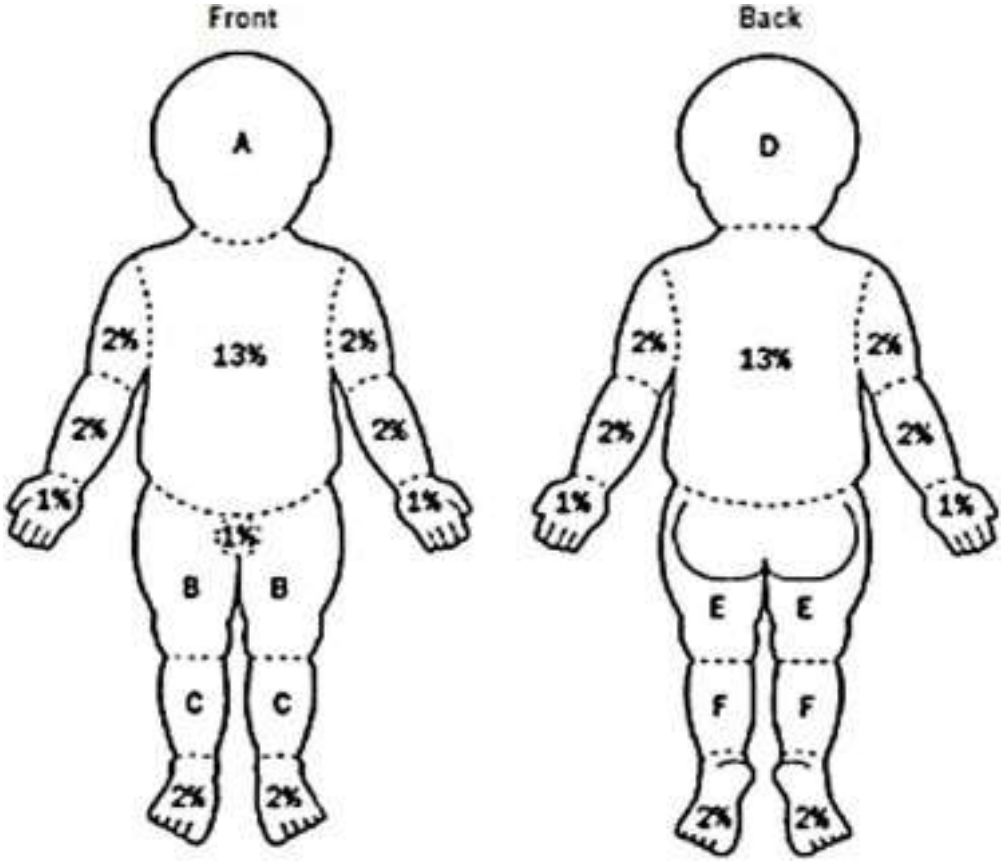
- ✓ *It also rises with increasing age so that even small burns may be fatal in elderly people.*

Burn Surface Area

- *The "Rule of 9's" is commonly used to estimate the burned surface area in adults*



Burn Surface Area

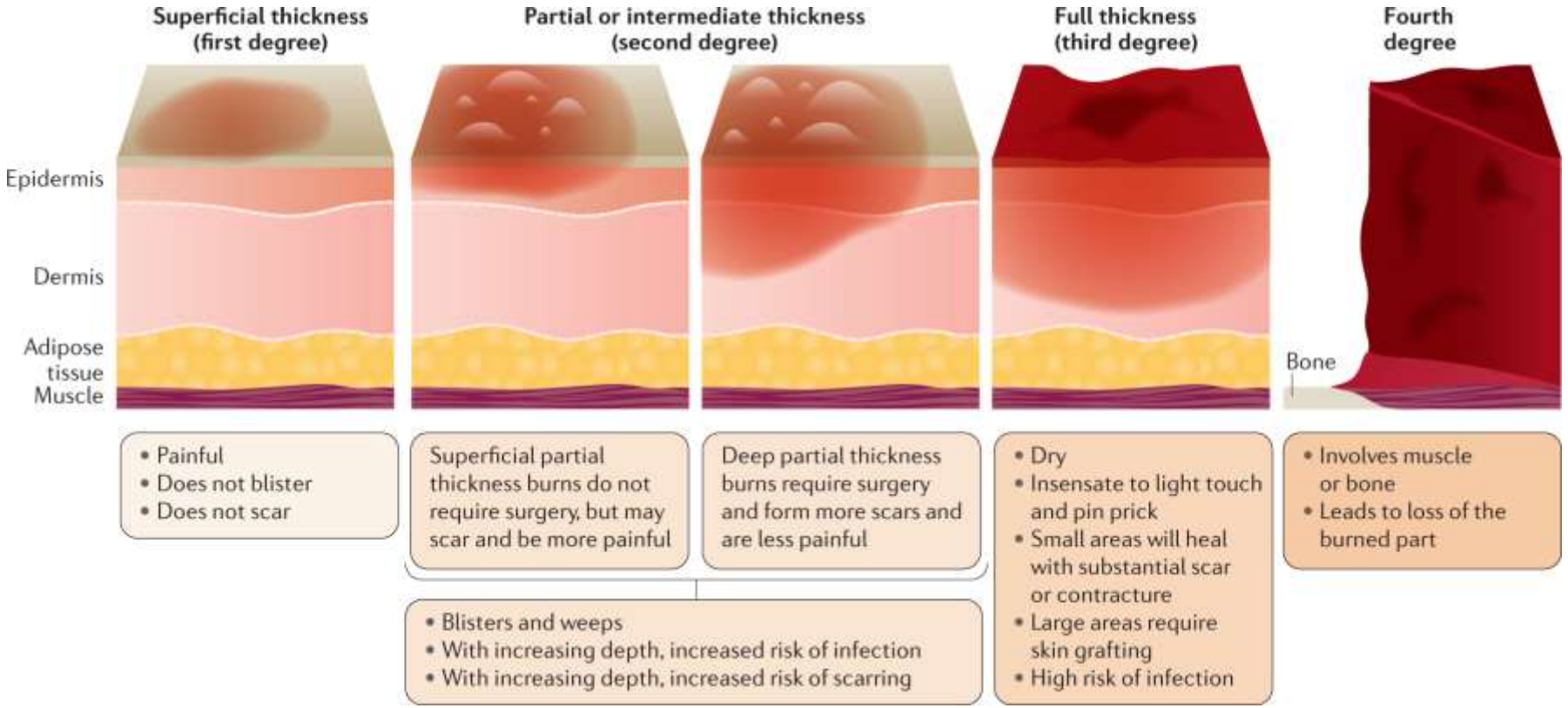


Area	By age in years			
	0	1	5	10
Head (A/D)	10%	9%	7%	6%
Thigh (B/E)	3%	3%	4%	5%
Leg (C/F)	2%	3%	3%	3%

Burn Surface Area

Depth of burn

- It is important to estimate the depth of the burn to assess its severity and to plan future wound care. Burns can be divided into four degree.



Serious burn requiring hospitalization

- Greater than 15% burns in an adult
- Greater than 10% burns in a child
- Any burn in the very young, the elderly or the infirm
- Any full thickness burn
- Burns of special regions: face, hands, feet, perineum - Circumferential burns
- Inhalation injury
- Associated trauma or significant pre-burn illness: e.g. diabetes

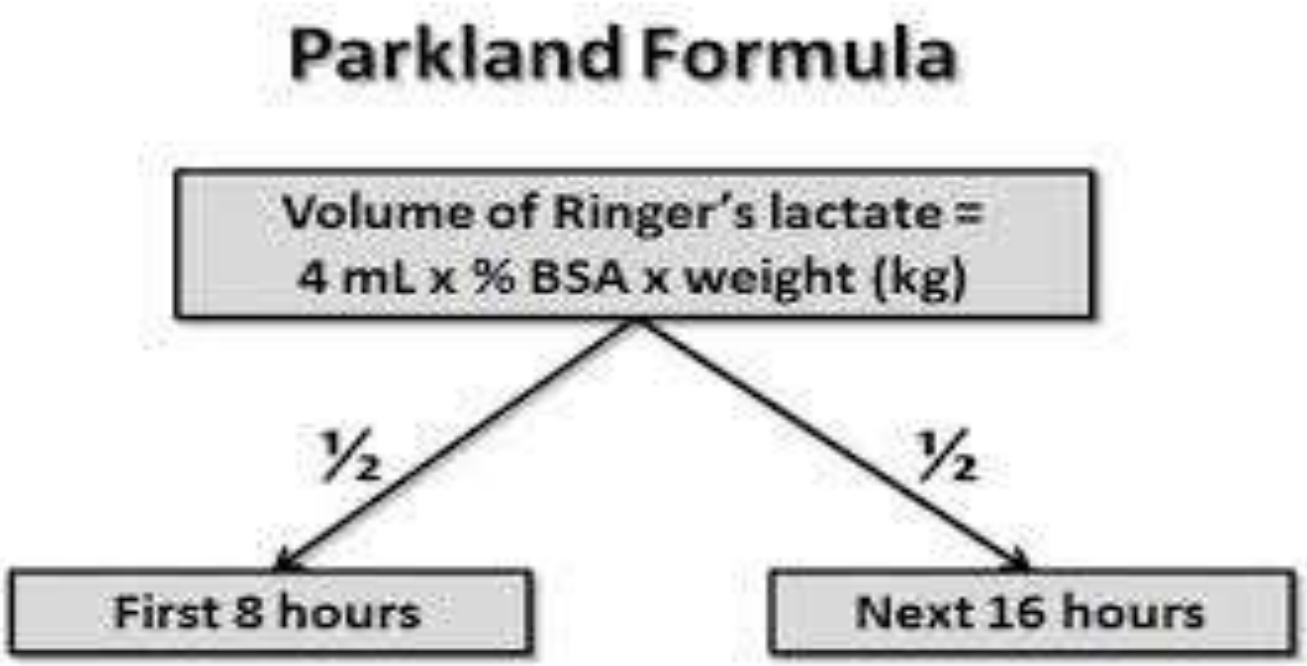
Wound care

First aid

- ✓ drench the burn thoroughly with cool water for 30 minutes to prevent further damage and reduce pain and oedema and remove all burned clothing.
- ✓ In all cases, administer tetanus prophylaxis.
- ✓ debride all bullae. Excise adherent necrotic (dead) tissue initially and debride all necrotic tissue over the first several days.
- ✓ Apply a thin layer of antibiotic cream (silver sulfadiazine).
- ✓ Dress the burn with petroleum gauze and dry gauze thick enough to prevent seepage to the outer layers.

Wound care

Fluid Resuscitation



Monitoring of burn patient

❖ Airway and Breathing

- Assessment and monitoring of airway patency and breathing should be carefully observed as patients at risk of inhalation burns can deteriorate up to 72 hours post burn injury, particularly if they have:
- Sustained burns in an enclosed space (at risk due to smoke inhalation)
- Have facial burn
- Singed nasal hairs
- Facial swelling
- Blackened sputum
- Stridor or hoarseness of voice
- Respiratory distress/increased work of breathing

Monitoring of burn patient

❖ **Circulation**

✓ Signs and symptoms of hypovolemia.

✓ Close monitoring of **Bp, Pulse and Temp**

✓ Central venous pressure (**Cvp**)

✓ Hourly monitoring of urine

Monitoring of burn patient

❖ **Pain assessment And Control**

- Burn injuries are often associated with extreme amounts of pain and discomfort due to damaged/loss of skin coupled with widespread oedema

Monitoring of burn patient

❖ **Nutrition**

- Patient's energy and protein requirements will be extremely high due to the catabolism of trauma, heat loss, infection and demands of tissue regeneration. If necessary, feed the patient through a nasogastric tube to ensure an adequate energy intake (up to 6000 kcal a day)
- Anaemia and malnutrition prevent burn wound healing and result in failure of skin grafts.

Monitoring of burn patient

- ***Monitoring and Managing Potential Complications***

- ✓ **Acute renal failure**
- ✓ **Compartment syndrome:**
- ✓ **Paralytic ileus:**
- ✓ **Curling's ulcer**

Preparation of patient and family

- ✓ Burn dressing changes can produce feelings of anxiety and distress in both patients and their families
- ✓ Families/primary care givers should be given a thorough explanation of the procedure
- ✓ Consider the benefit of social work support for patients and parents who may require additional support before or after a dressing change.


Thank You!
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