

Minor Burns



Mr. Adam Bialostocki
Plastic Surgeon



Bay Plastic Surgery
LIFE AND BEAUTY



Burns

First Aid

- **Remove** the burning agent / wet clothes
- COLD RUNNING **WATER** FOR 20 MIN
 - <60 min from time of burn.
 - Does not need to be sterile.
 - Can use water for comfort at any stage but keep the patient warm.
- **Don't use ice**



Burns

First Aid

- **ELEVATE** to help reduce swelling
- **ANALGESICS** – paracetamol & brufen/codeine
 - refer to A&E if pain control is inadequate with oral analgesics.



Burns

Estimating burn depth

- Burn depth guides treatment
- 1st, 2nd & 3rd degree are no longer used.
 - too much confusion!
- use superficial, partial & full-thickness.
- most burns are a combination



Burns

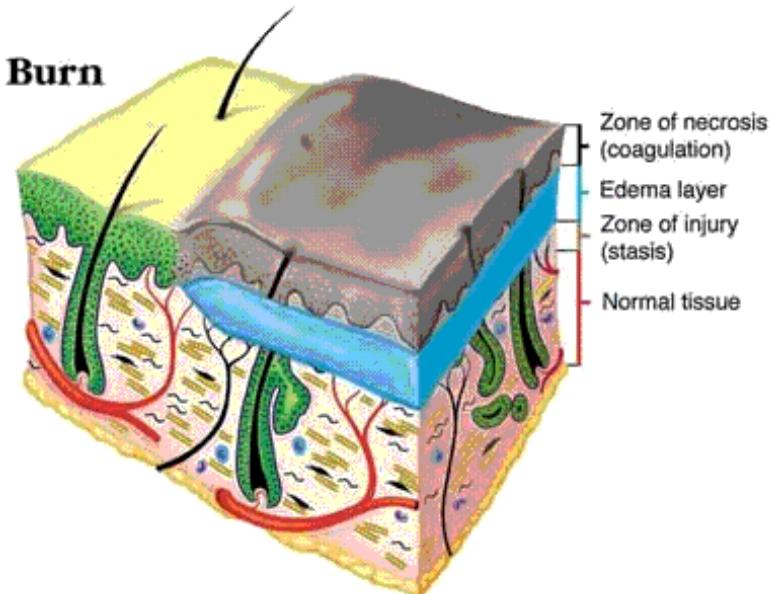
Estimating burn depth

- Superficial
 - Involves **only the epidermis** and is characterized by erythema.
 - Pain, the chief symptom, usually resolves in 48-72 hours.
 - In 5-10 days, the damaged epithelium peels off in small scales, leaving **no residual scarring**

Superficial Dermal Burn

Characteristics

1. Necrosis confined to upper third of dermis
2. Zone of necrosis lifted off viable wound by edema
3. Small zone of injury



Burns

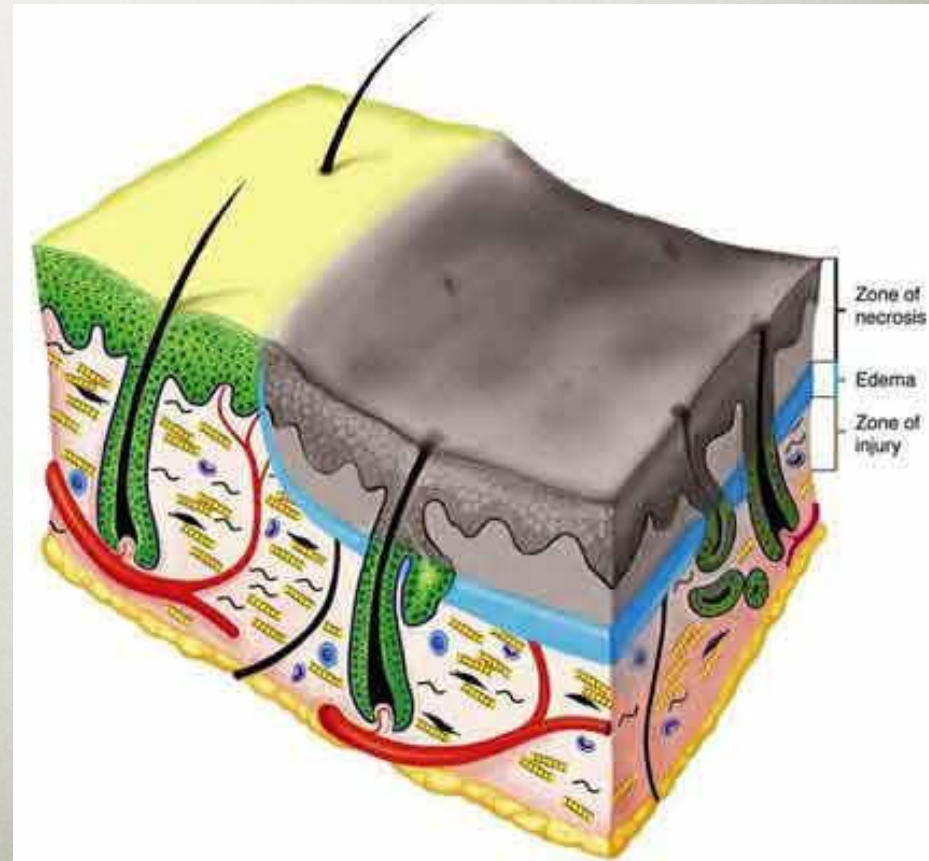
Superficial



Burns

Partial thickness

- Partial Thickness
 - Partial-thickness burns are deeper, involving all of the epidermis and **some dermis**.



Burns

Superficial Partial thickness

- Superficial burns are characterized by **blister formation**.
- blisters may have burst by the time you see the wound
- wound appears shiny / glistening.
- very painful - exposed nerves



- may heal with some residual blemish or pigmentation



Burns

Deep Partial thickness

- Deep partial-thickness burns have a layer of **white** non-viable dermis firmly adherent to the remaining viable tissue.
- Will heal, but resulting appearance may be **better with a skin graft**.



Burns

Full thickness

- Full thickness
 - All layers of the skin are dead.
 - **Waxy white** & **insensate**.
 - leathery texture
 - May also appear a charred brown.



Burns

Full thickness

- no potential to heal itself.
- needs to be **replaced with skin graft** or other temporary dressing.



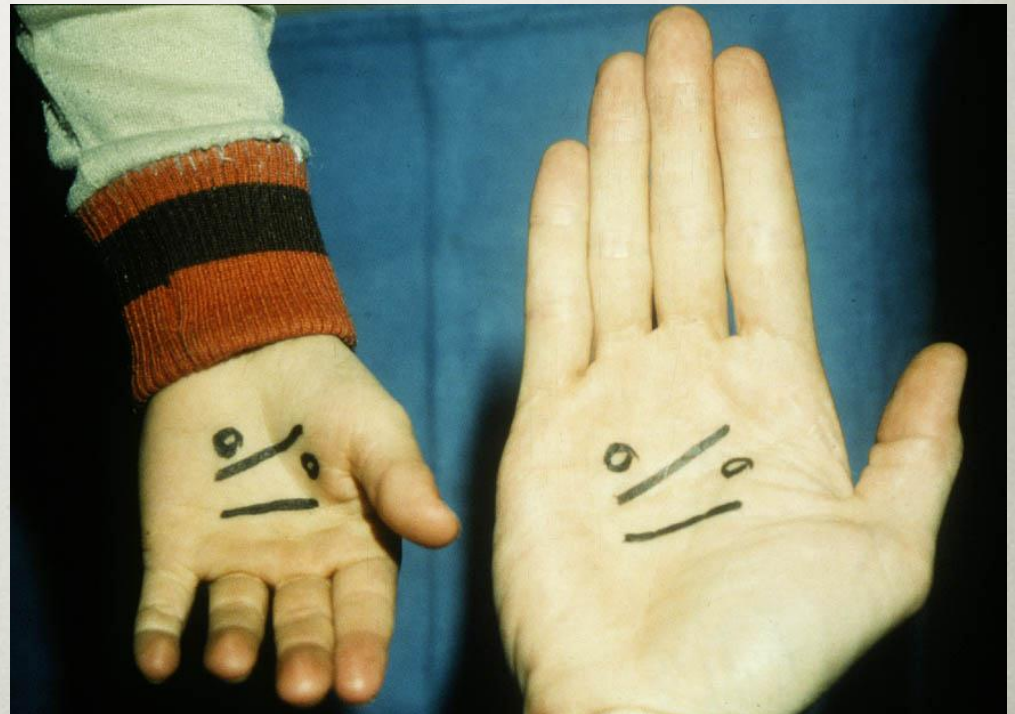
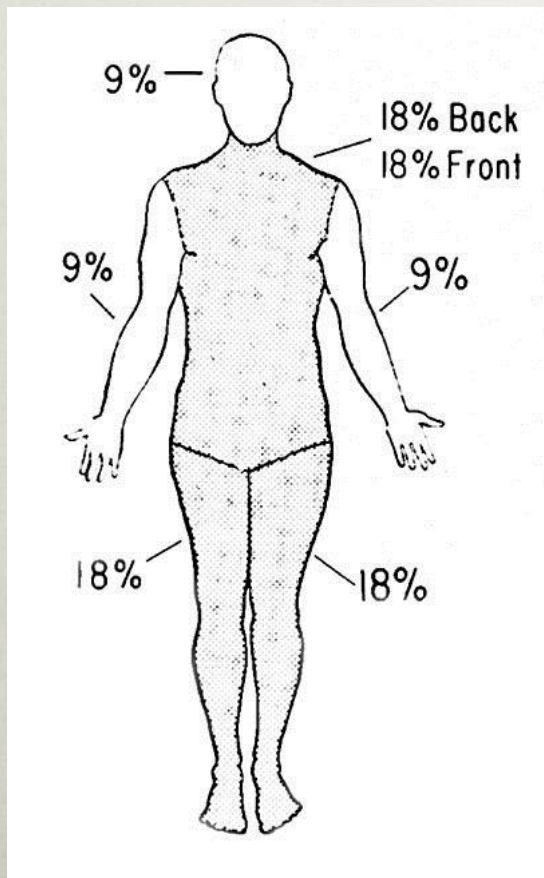
Inhalation burns

- Char around lips and nostrils
- Singed nasal hairs
- Carbonaceous sputum
- Oral edema
- Hoarse voice / wheezing
- **Call an ambulance STAT!**



Burns

Estimate surface area



Burns

When to refer

- Inhalation injury - **AMBULANCE!**
- Superficial if **>10%**
- partial -
 - Discuss Burn size > 5 % in any patient
 - (<5% can try Flamazine for 5 days & then Jelonet for 5/7 & see
 - refer > 10% in any patient
- Full thickness burn - **discuss any FT burn** with the burns specialist service
 - may need admission or will be seen in clinic
- Discuss any burn involving the **face, hands, feet, genitalia**

Burns

When to refer or discuss...

- Associated trauma
- Chemical or electrical burns
 - invariably far more extensive than is evident on initial inspection.
- Co-morbid states; <2yr old and >60yr old
 - Significantly higher death rate
- If you can't debride / clean properly (even if very small) and if the patient requires proper analgesics - refer to A&E

Burns

Burn Wound Management

- Debride collapsed blisters
- Dead tissue is bug food and may get infected.
- The fluid inside intact blisters is detrimental to the healing.

Superficial *Burn wound management*

- Option 1
 - **Hypafix** / **mefix** on all superficial burns (superficial and superficial partial)
 - ALWAYS thoroughly clean burn wound first
 - ALWAYS with antibiotics for as long as the dressing is on.
 - take off in 7-10/7 with oil.
 - NEVER on deep dermal or full thickness burns – it will hide dead tissue.
- Option 2
 - Daily open dressings with Flamazine.
 - Antibiotic only if infected.
- Very superficial burns like sunburn can be treated with moisturizers.

Burns

Deeper *Burn wound management*

- Open dressing:
 - **Flamazine** – can use on
 - all deep **partial** burns not being referred to the hospital
 - i.e. <5% - more than this will prob need morphine etc.
 - or on **full thickness** burns awaiting plastics assessment or
- Clean and redress with Flamazine every day for **5/7**, with Jelonet, gauze and a loose bandage.
- After the first 5/7, dress every second day with Jelonet and gauze.
- Discuss with plastics service if the burn is not significantly healing by the end of the **2nd week**.
- Oral abx **only if infected**.

