BURNS

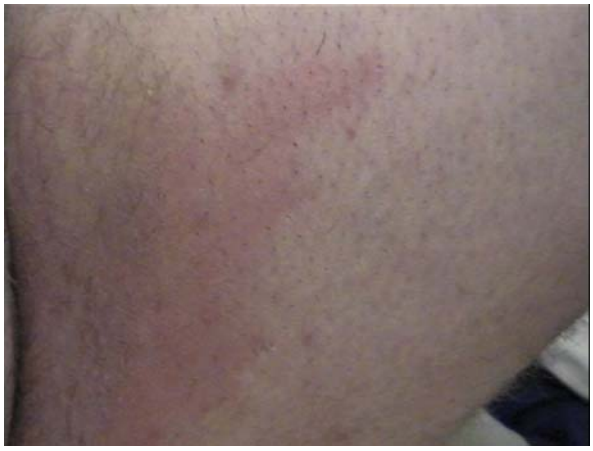
Burns are very often seen in A&E ranging from the trivial burns to major life threatening ones. This is a simple guide to management

If in doubt discuss with senior

All major burns to be treated in resus

Grades of burns

1. **Superficial** - Erythema i.e. scald/sunburn
   Painful
   Absence of blisters
   Not life threatening

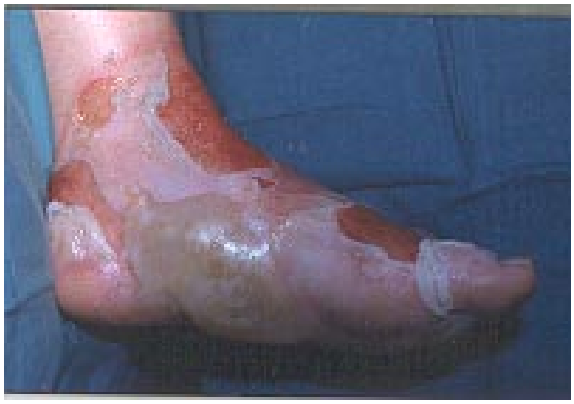


superficial burn

2. **Partial Thickness**
   These are subdivided into two types

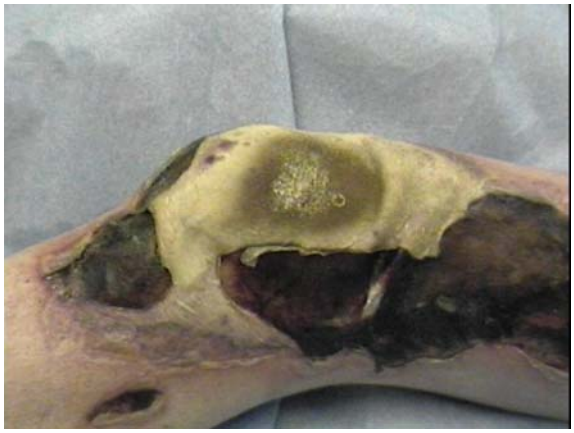
   Superficial Skin red and blistered
   Blanches
   Painful
   Heals in 10-14 days

   Deep Skin pink or white
   Feels thickened
   Decreased sensation
   Heals in 3 weeks



partial thickness burn.
Areas of superficial/deep partial thickness burns

3. **Full Thickness** Skin white/brown
Dry leathery
Anaesthetic with no capillary return
Requires skin grafting.


full thickness burn

MANAGEMENT

Large Burns: Management
Manage in resus
Ensure senior involved

Resuscitate A, B, C
Send blood carboxyHb, ABGS, U&Es, pulse oximetry
CXR
Assess burns surface area: use burns charts in resus
IV Fluids **Hartmann's Solution** (>10% child and >15% adult)
There are a couple of formulae used to calculate fluid requirements
These are only guides. Fluid requirement should be guided by urinary Output.

Parkland Formula 4ml x Wt (kg) x % burn area
1st ½ given in the 1st 8 hours then next ½ in the next 16 hours. Use Hartmann's solution

2 x Large IV cannulae

Urinary catheter - > 50mls/hr . Test for myoglobin

Analgesia - i.e. opiates

Tetanus

Escharotomy

Wound Dressing - leave adherent clothes
Cover with non-adherent dressing (NA)
Beware hypothermia
Avoid FLAMAZINE until burn fully assessed.

Refer Burns Unit Glasgow Royal Infirmary
15% ADULT
FUNCTIONAL AREA /GRAFTING/
CHEMICAL OR ELECTRICAL BURN

The regional burns unit is at Glasgow Royal Infirmary. Contact the on-call burns/plastics SHO through the GRI switchboard.

Paediatric Burns: see separate paediatric referral pathway

Smaller Burns: Management

- Irrigate with cold water
- At IRH you can prescribe Dermidex for superficial erythema
- Ensure adequate analgesia / **tetanus status**
- Assess & document size / site / depth - drawings are useful
- Deroof large blisters
- Cover with a non-adherent dressing e.g. Silicone NA.
- **DO NOT USE FLAMAZINE ON NEW BURNS!!!**
- Encourage movement / elevate limb injuries
- **NO** prophylactic antibiotics
- Reassess at 36 – 48 Hours in A&E or GP surgery if small
- Thereafter redress every 3-5 days either by practice nurse or in A&E if concerned. The majority of burns can be followed up at the GP surgery

ADVISE SENSITIVITY TO SUNLIGHT IN FOLLOWING YEAR.

Grafting

A decision as to whether or not a small burn will require grafting will be made by the consultant/middle grade. Small burns requiring grafting usually fall into one of the following categories.

- Full thickness burns >2cm ^{2}
- Deep partial thickness burn showing little signs of improvement at 10-14 days.

RAH ED Management of Large Burns

Initial Assessment **A&B**

- Altered conscious level?
- Soot in nose or mouth?
- Hoarseness / Stridor?
- RR > 25/min
- Oxygen sats <95% on 15l/min O_2

YES →

Contact:

ED consultant

ICU on call (page 56004)

NO ↓

Circulation **C**

Insert 2 large iv cannulae – avoid areas of burn
Send bloods (U&E, FBC, Coag, Group & Save)

Resuscitate using Parkland Formula - Use **Hartmann's solution**

Amount of fluid - 4mls x x = mls

Give 50% of total in first 8 hours **FROM TIME OF BURN**
50% of total in next 16 hours

Refer to chart on back of form to calculate Burn Surface Area

Catheterise patient and test urine for myoglobin (false positive for blood on urine dipstick)
Aim for urine output of at least 1ml / kg / hour

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Check arterial blood gas including CoHb – consider arterial line
Give appropriate level of opiate analgesia
Give Tetanus booster or immunoglobulin if appropriate

Secondary survey for:

- Evidence of other injuries
- Evidence of self poisoning
- Evidence of chemical exposure

Appropriate dressing for wound (Clingfilm or non-adherent)
Beware of hypothermia if using saline soaked swabs / gauze

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Refer to GRI Burns Unit (#6612 and ask for duty plastics SHO / Reg) if:

- >10% burn in child or >15% burn in adult
- Functional area burn
- Grafting required
- Chemical or electrical burn