



PAEDIATRIC ACUTE CARE GUIDELINE

Burns

Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

This document should be read in conjunction with this DISCLAIMER
<http://kidshealthwa.com/about/disclaimer/>

Burns

Background

- Burns are a leading cause of injury in children

Assessment

- Assessing a burn can be difficult for clinicians and the appearance can change during the first 48 hours

History

- Time burn occurred
- Type of burn: thermal (most common), chemical, electrical, the substance causing the burn, duration of contact
- First aid done at the scene
- Any further treatment prior to arrival in hospital
- Other injuries
- Immunisations: tetanus

Examination

Percentage Body Surface Area (BSA)

- Use the [Burns Body Surface Area Sheet](#)
- Do not include areas of erythema
- Note: the palmar surface of the child's hand = 1% as a rough estimate of BSA

Depth

- **Superficial:** only involve the epidermis
- **Partial:** involve whole epidermis and part of the dermis – can be divided into superficial (papillary layer of the dermis) and deep (reticular layer of the dermis)
- **Full thickness:** involve epidermis and entire dermis.

Distribution

- Note pattern of burns
- Consider non-accidental injury (NAI) if history inconsistent with the examination findings, delay in presentation, look for other injuries like bruises

Specific information

- Burns in special areas (e.g. face, neck, hands, feet, perineum)
- Assess for inhalation burns: singed nasal / eyebrow hairs, swelling of mouth/face, stridor, hoarse voice, cough, respiratory distress, any facial, oral or neck burns, black sputum

Management

Resuscitation

- **Airway:** consider early intubation for inhalation burns, remember C-spine precautions in trauma
- **Breathing:** always give oxygen in severe or inhalation burns
- **Circulation:** treat shock with boluses of 0.9% saline, 20mL/kg then reassess. See ED guideline: [Fluid – Intravenous Therapy](#).

Initial management

First Aid

- Stop the burning process
- Cool the burn with cold running water for 20 minutes. Do not use ice.
- Remove clothing, taking care not to rip any adhered skin. Cut around adhered clothing if required.
- Remove jewellery
- Keep the patient warm 36-37°C
- If outside hospital, do not apply any burns gels, burns can be covered with plastic cling wrap for transfer. Do not use Fixomull.

Analgesia

- Check what has been given prior to arrival
- Intranasal fentanyl should be the 1st line analgesia
- If IV cannula already in situ, IV morphine can be given
- Oral analgesia: paracetamol, ibuprofen, paracetamol/codeine
- See ED guideline: [Burns – Medication](#)

Assess for concurrent injuries

- Perform a head to toe examination for concurrent injuries – consider the possibility of NAI
- Whilst conducting survey take note of estimated BSA % and document on the chart

Further management

Minor Burn or Burn with Elevated Concerns

Discuss with Emergency Department Senior Doctor to consider admission for:

- Special area burns (e.g. face, neck, hand, feet, perineum)
- Suspicion of NAI
- Full thickness burns
- Chemical / electrical burns
- Circumferential burns (partial or full thickness)

Take photos – when available – call Medical Illustrations on 9340 8282

- Must use photographic consent form

Wound Care

- See ED Guideline: [Burns – Dressings](#)

Arrange follow up or admission

- Discuss with Emergency Department Senior Doctor and/or Burns Registrar

Major Burn or Burns of High Concern

Consult with Burns Registrar/Consultant for admission:

- 5% or greater
- Inhalation burns
- Concurrent injury or co-morbidities
- Infected burns
- Circumferential (potential need for escharotomy)

Rehydration and Maintenance

See ED guidelines: [Burns – Fluids](#); [Fluids – Intravenous Therapy](#) and [Burns Fluid Calculator](#)

Wound Care

- Elevate burnt area
- Regular neurovascular observations
- See ED guideline: [Burns – Dressings](#)

Medications

- See ED Guideline: [Burns – Medications](#)

Admission criteria


As above, consider admission when:

- Special area burns (e.g. face, neck, hand, feet, perineum)
- Suspicion of NAI, other concurrent injuries
- Full thickness burns
- Chemical / electrical burns
- Circumferential burns (partial or full thickness – potential need for escharotomy)
- 5% or greater BSA
- Inhalation burns
- Infected burns

Tags

blister, body surface area, brower, bsa, burn, burns, chemical, dressing, dressings, electrical, erythema, fluids, full thickness, inhalation, intravenous, lund, nia, parkland, partial, replacement, resus, resuscitation, resuscitation, scald, sunburn, superficial, wound, wounds

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