



Burn Injury

Source Document:	North West Children's Major Trauma Operational Delivery Network (ODN) Clinical Guidelines
Version:	4
Ratification Date:	10/11/2023

Burn Injury

Management of Burns Patients

Referral to Specialist Burns Service

Northern Burn Care Network - <https://www.northern-burncare-network.nhs.uk/>

Electrical Injury

Low voltage (less than 1000V) injuries cause skin burns but rarely cause other problems such as dysrhythmia or myocardial injury. They tend to be household accidents in toddlers.

High voltage burns (greater than 1000V) are more common in adolescents indulging in risky behaviour such as playing on railway lines. Significant problems, other than the obvious skin burns, can occur including:

- Asystolic cardiac arrest
- Tetany causing respiratory arrest, or fractures and dislocations
- Tissue necrosis and rhabdomyolysis
- Renal failure secondary to myoglobinuria
- Altered consciousness
- Seizures
- Spinal cord injury

These complications must be managed appropriately. Admission and monitoring is advised following high voltage injury. Internal tissue damage is not accounted for in fluid resuscitation formulae. Requirements usually exceed those calculated by Parkland formula and should be based on urine output.

An asymptomatic child who has sustained a low voltage injury and has a normal ECG is unlikely to deteriorate and may safely be discharged.