

PLASTIC SURGERY

AETIOLOGY OF BURNS

Burn injuries can result from exposure to heat (including flames, hot liquids or objects; referred to as thermal burns), chemicals and electricity. When attending to any patient with a burn injury, always perform an ABCDE approach and recall that each type of burn has specific considerations, as explained below.

Management of Thermal Burns

1. Request anaesthetic assistance for any potential airway damage
2. Remove non-adherent clothing and potentially restricting jewellery. (Do not attempt to remove tar, jewellery or clothes that are adhered to the skin).
3. Within 20 minutes of the injury, irrigate the burn with cool or tepid running water for 20–30 minutes. If water is not available, use wet towels or compresses. (Note: do not use ice or very cold water, as this may cause vasoconstriction and may deepen the wound).
4. Ensure the person is kept warm with sheets or blankets to avoid hypothermia, especially if cooling large areas of skin in children and the elderly.
5. Immediately after cooling cover the burn using cling film, layered onto the burn rather than wrapped circumferentially, to reduce the risk of vasoconstriction. Consider using a clean, clear plastic bag for burns to the hand and remember to individually wrap the fingers and toes as the burn may make them adhere to adjacent digits. (Note: do not use wet dressings or topical creams).
6. Elevate the affected area if possible to reduce the risk of oedema.
7. Offer pain relief, such as paracetamol or ibuprofen for mild-to-moderate pain. Consider adding codeine for more severe pain.
8. Assess the burns depth and total body surface area and decide whether specialist referral to plastic surgery is required. Sunburns that are of superficial thickness most often do not require referral to a Burns Unit unless pain relief is not adequate in the community.

Management of Chemical Burns (special considerations)

1. Determine the causative chemical, where possible.
2. Remove affected clothing, brush the chemical off the skin if it is in a dry form and copiously irrigate the burn with water for an hour. (Note: do not attempt to neutralize chemicals as additional heat will be generated, which may increase tissue damage).



Management of Electrical Burns (special considerations)

Electrical burns should be managed like any other burn, although, the threshold for admission and review should be lower as the burns are often deeper than purely thermal burns. Always perform an ECG as these burns can affect the conducting system of the heart.



