

Thermal Injury Classification

Superficial (First Degree) Pink/red, like a sunburn, Epidermis injured, Painful, Heals 2-3 days

Superficial Partial Thickness (Second (2A) Degree) Image: Greenhalgh, 2016, Fig 8.6



- Epidermis and Papillary Dermis injured
- Bright Pink, Blisters present initially
- Painful
- Heals Spontaneous, 2 weeks
- Minimal scarring expected

Deep Partial Thickness (Second (2B) Degree) Image: Ure & Schetzsel, 2015



- Epidermis, Papillary and Reticular Dermis injured
- Mix of red and waxy white
- Significant Edema
- Painful, weeping surface
- Heals Spontaneous, 2-3 wks
- Expect some scarring

Full Thickness (Third Degree) Image: Greenhalgh, 2016, Fig 8.7



- Epidermis, Dermis and Subcutaneous tissue injured
- Dry, leathery and white appearance, May have eschar
- No pain, receptors damaged
- Often requires grafting to heal
- Expect scarring

Subdermal (Fourth Degree) Image: Ure & Schetzsel, 2015



- Through subcutaneous tissue to muscle or bone
- Likely neurological and muscular damage also
- No pain at site, since nerves damaged
- Need surgical support to heal

Other Mechanisms of Injury

Frostbite



- Often appears initially with large blisters then black, dry tissue
- Some centres use Iloprost in initial phases to help with re-perfusion
- Can be classified as burn injury or specific frostbite scales

- Key feature of demarcation period to allow for healing before further surgical intervention
- Helpful resources: <https://www.frostbitecare.ca>

Image: Ure & Schetzsel, 2015

Electrical Injury

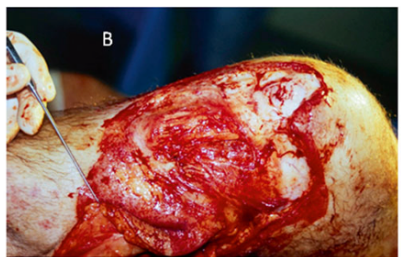


- Consider system wide impacts
- Injury to tissues along path current followed (ie- cardiac dysrhythmias, peripheral nerve damage)
- May have fall or trauma related injuries also

- Injury often subdermal and may need extensive surgical intervention or amputation to heal

Image: Ure & Schetzsel, 2015

Chemical Injury



- Exposure continues until chemical neutralized or removed from area
- Injury depends of duration of exposure and agent (ie- cement contact)

- Absorption can lead to systemic effects
- Injury can convert to deeper since absorbs into tissue and can be tough to classify

Image: (Greenhalgh, 2016, Fig 16.2)

References

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Resource Created for CERS Webinar - Practical Approaches for Burn Rehabilitation In Saskatchewan, June 2026.