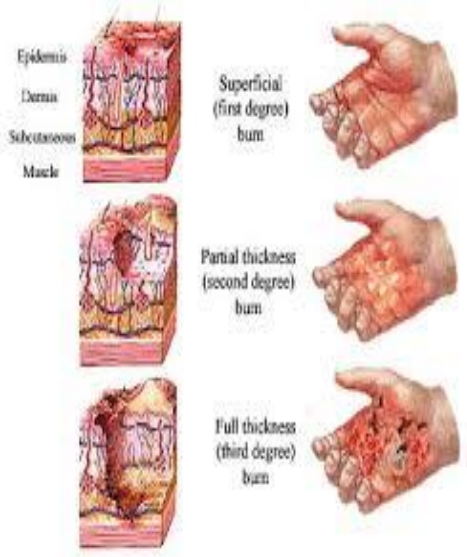
PAEDIATRIC BURNS

Depth Assessment

DEPTH	CAUSE	SURFACE/COLOUR	PAIN SENSATION	PICTURE
Superficial	Only epidermis is involved	• Red with no blistering • Brisk capillary return	Painful	
Superficial partial thickness	Superficial, part of dermis as well as epidermis is involved	• Moist, reddened with broken blisters • Normal capillary return	Painful	
Deep partial thickness	Destruction of dermal vascular plexus	• Moist, white sloughing, red and mottled • Sluggish capillary return • May have some blistering	Painless	
Full thickness	Destruction of epidermis and dermis	• White/waxy/charred appearance • No capillary refill	Painless	

Please note: children's skin is much thinner than that of an adult's; therefore it is more susceptible to deep burns.

Dressings

The purpose of a dressing is to protect and absorb drainage as well as promote a moist wound environment. The amount of drainage, the size, depth and area of the burn should be taken into consideration when selecting the appropriate dressing.

With facial burns that are superficial, they may only require Petroleum jelly application three times a day to keep the burn moist.

It is normal for a burn to have drainage, especially in the first two weeks.

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Dressing Chart

DRESSING NAME	MANUFACTURER	DESCRIPTION	BURN DEGREE	PICTURE
Aquacel Ag	ConvaTec	• Hydrofiber™ Technology: soft, absorbent material that transforms into a gel on contact with wound fluid. The gelling action creates an optimal environment for wound healing. • Is antimicrobial • Up to 21 day wear time (change when it jellifies)	Deep partial thickness & full thickness	
Physiotulle Ag	Coloplast	• Hydrocolloid based non-adherent wound contact layer with silver, designed to prevent and control wound infection. • Up to 3 day wear time	Superficial & superficial partial thickness	
Restore	Hollister	• TRIACT Lipido-Colloid Technology: provides a moist wound interface and is non-adherent. May help reduce infection in low to moderately exuding partial & full-thickness wounds. • Up to 3 day wear time	Superficial & superficial partial thickness	
Adaptic	Acelity	• Non-adherent dressing made of knitted cellulose acetate mesh, impregnated with a specially formulated petrolatum emulsion. • Change daily • Coat with an antibiotic ointment such as Bacitracin or Bactroban. Cover with dry gauze & secure with kling	Superficial & superficial partial thickness	

General Treatment

Good nutrition is the key component which allows the body to heal.

A child needs a diet high in protein and calories and must drink ample fluids. Ideally, a child will drink more than just water as there are no calories being consumed.

Consider supplementing with ascorbic acid, a multi-vitamin and zinc to support wound healing.

Regular pain relief is also helpful.

A physiotherapist referral is essential to help maintain and restore mobility, as well as minimize scarring or contractures.

Follow-Up with Healthcare Provider

Burns often change rapidly over the first couple of hours; therefore the most definitive assessment should be made approximately 3 days after the initial presentation to re-assess depth.

It is important to ensure a child is taking in enough fluids. If a child isn't voiding their "usual" number of wet diapers, he or she will need to be assessed by a healthcare provider.

If a child develops a temperature higher than 38.5° C, he or she will also need to be assessed by a healthcare provider.

References

Shepherd, M. (2008). *Paediatric Burns* [PDF file]. Retrieved from http://www.adhb.govt.nz/starshipclinicalguidelines/_Documents/Burns.pdf

The Royal Children's Hospital Melbourne. (n.d.) *Clinical Practice Guidelines.* Retrieved from https://www.rch.org.au

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