

Pre-tibial Lacerations



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LIFE AND BEAUTY

Pretibial Injury

- Annual incidence is estimated to be ~ 1 in 9000 in New Zealand.
- The average age is between 63 and 77 years.
- 85-91% of these patients are females.

Pretibial Injury

Mechanism

- The injury results in a **degloving** injury of the soft tissue over the tibia which may occur at any tissue level
- The degloved soft tissue is avulsed with a **pedicle** based inferiorly, superiorly or laterally.
- In some cases the soft tissue is completely **detached**.

Pretibial Injury

Mechanism

- The pretibial area is prone to injury.
- The skin in the elderly is thin, atrophic and inelastic
- little subcutaneous fat to absorb the impact of any blow.
- This predisposition is often compounded by the effect of concurrent medications such as steroids.

Pretibial Injury

Classification

Type	Level
1	Haematoma, no significant skin wound
2	Skin degloved at the epidermal / dermal junction
3	Degloving at the subcutaneous level
4	Extending to fascia or periosteum
5	Flap extending to bare bone or tendon

Pretibial Injury

Type 1 - *closed injury*

- Closed injury with an underlying **haematoma** causing swelling and tension.
- The **tension** will kill the overlying skin.



Type 1 - Treatment

- **Early incision & drainage** of haematoma & insertion of drain.
 - *Refer for debridement if there is overlying **skin necrosis**, as split skin grafting will be required.*
- Padded dressing with elastic support.
- Elevate the foot for **24 hours** then mobilize, still keeping the leg up when sitting.
- Prophylactic antibiotics.

Pretibial Injury

Type 2 - *epidermal/dermal*

- Rare.
- Epidermal loss - like an **abrasion** or a partial thickness burn.
- The dermis remains and healing will be from this dermis.



Pretibial injury

Type 2 - Treatment

- If the epidermal layer is still present, it is cleaned & **laid on** the wound.
 - **No attempt to suture or tape.**
- If the epidermis is **dirty or too traumatised**, cut it off.
- If epidermal layer is missing, a skin **graft is not usually required**.
- Padded dressing with elastic support.
- Elevate the foot for 24 hours then mobilize, still keeping the leg up when sitting.
- Prophylactic antibiotics.

Pretibial Injury

Type 3 - *subcutaneous plane*

- Skin is usually **absent or not viable**.



Pretibial injury

Type 3 - Treatment

- If the flap is viable, the wound is cleaned and dressed
 - Do not suture or steristrip.
- Otherwise, refer so all devitalised tissue is removed & the wound repaired with a skin graft.
- Jelonet, padded bandage, elevation, AB's

Pretibial Injury

Type 4 - periosteal / fascial plane

- Patient is **referred acutely** to A&E.
- Exposed fascia is excised & a skin graft laid directly onto muscle
- The limb is Splinted.
- Mobilised at 24hrs.
- Prophylactic antibiotics.



Pretibial Injury

Type 5 - *exposed bare bone / tendon*

- Patient **requires admission**.
- Local **flap** for bone / tendon coverage & skin graft of secondary defect.
- Small drain used.
- Splinted and mobilised at 4 days.
- Prophylactic antibiotics.



