

* Chronic Wounds could be due to 3 reasons: ① failed to proceed through the orderly process that produces both satisfactory anatomic and functional integrity ② Proceeded through but the outcome wasn't adequate ③ failed to heal within expected time

1- Ischemic Ulcers: **associated symptoms**: * intermittent claudication * night pain * rest pain * color changes
associated signs: * diminished or absent pulses * ↓ ankle brachial index (more evident in diabetic patients) * poor formation of granulation tissue * dryness of the skin * pallor * scaling * hair loss
- Wound characteristics: * shallow with smooth margins * pale base * smooth skin might be present
*** Management**: * revascularization by vascular bypass or angioplasty * if infected → antibiotics * when blood flow is established → debridement * offloading technique * if diabetic → glycemic control * Avoiding Smoking

2- Venous Stasis Ulcers: (Painless)

Failure of re-epithelialization despite the presence of adequate granulation tissue either in the deep or superficial circulation but more common in the deep

Most common sites

At the gaiter area (medial aspect of the leg) above the medial malleolus

- Wound characteristics: * shallow irregular margins * pigmented skin

* Sites: Hunterian, Dodd, Boyd, Cockett

* Management: Compression →

- ① preventing blood back flow
- ② ↓ release of inflammatory cytokines

3- Diabetic foot Ulcers

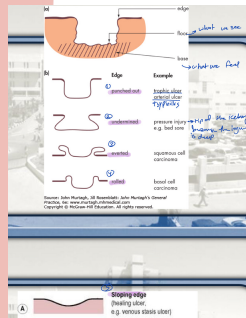
Caused by uncontrolled DM

→ as a result of prolonged inflammatory phase

→ neuropathy and ↓ pain perception and nociception (don't feel small wounds) → damage of blood vessels → no adequate oxygenation causing chronic wounds

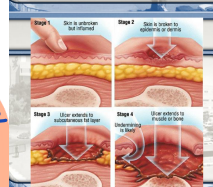
* Management: local; systemic

- ① Adequate blood glucose levels
- ② Antibiotics if infected
- ③ Appropriate bandages
- ④ debridement
- ⑤ arterial revascularization
- ⑥ platelet-rich fibrin therapies



Pressure ulcers are divided into the following stages depending on severity:

- Stage I: Intact skin with non-blanchable redness of a localized area (usually over a bony prominence)
- Stage II: Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed without slough
- Stage III: Full thickness tissue loss. Subcutaneous fat may be visible. Slough, eschar or necrotic material may be present
- Stage IV: Full thickness tissue loss with exposed bone, tendon or muscle



4- Pressure ulcers: localized necrosis + compression of soft tissue between a bony prominence and an external surface. **accelerated by**: friction, shear force, moisture

* Risk factors: * immobility * altered activity level * altered mental status * altered nutritional status * chronic conditions

* Sites: Sacrum, Coccyx, heels or hips, elbows, knees, ankles, back of the cranium

* Management: Redistribution of pressure

- Stage 1+2 ⇒ Day care settings
- Stage 3+4 ⇒ Surgery needed

* Transformation of chronic ulcers - if not treated - to marjolin ulcers that proceed into squamous carcinoma or basal (rarely)

* Prevention: by controlling DM, HTN, venous insufficiency and peripheral neuropathy