Ear injuries

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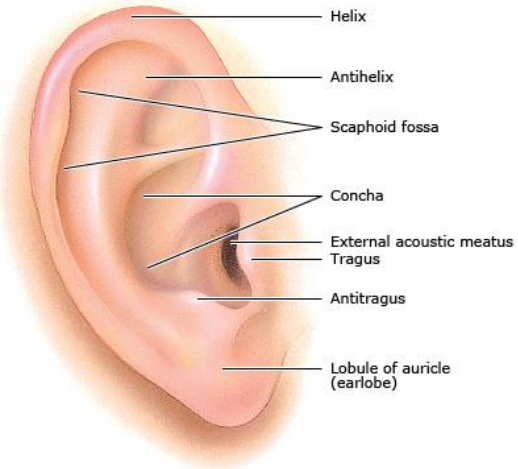
See also ***Nose injuries*** on Microguide (Paediatrics & Neonatology > Paediatrics > A-Z > CED guidelines)

Background

Ear injuries e.g. haematomas in the **under 1 year** olds are a potential **safeguarding issue**. 11% of children who go on to suffer non accidental injury initially present with oral/ ENT injuries as their sentinel injury.

Any infant under 1 year presenting with an ear injury needs:
1. ENT doctor to Senior Paediatric doctor referral / discussion.
2. ENT doctor to discuss with ENT Consultant after the ENT doctor has seen the patient.



The ear is composed of
- **Cartilage**: avascular. Derives its blood supply from overlying perichondrium / skin. Separation of cartilage from the perichondrium will result in avascular necrosis of the cartilage
- **Perichondrium**
- **Skin**: thin layer, tightly adherent to the perichondrium

The Pinna

Complications of pinna injuries:

Auricular hematoma – due to blunt trauma (boxing / rugby) or following wound repair. Perichondrium is lifted from the underlying cartilage and blood collects in the sub-perichondrial space, resulting in avascular necrosis of the cartilage. Subsequent development of "**Cauliflower ear"** can occur – a chronic deformity of the pinna due to fibrocartilage overgrowth following healing of necrosed cartilage.

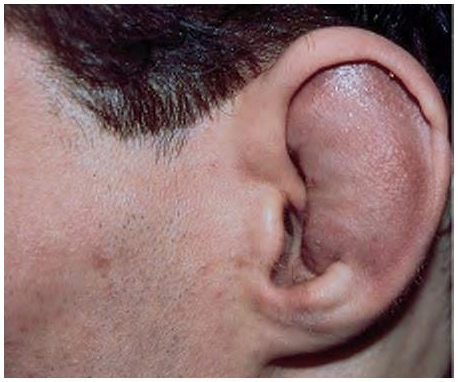
Auricular haematoma must therefore be promptly drained followed by application of a pressure dressing to prevent re-accumulation.

Chondritis / perichondritis – inflammation or infection of the cartilage or perichondrium. May result in cartilage necrosis.
Abscess formation between cartilage and perichondrium can occur, leading to risk of Cauliflower ear.
Usually due to pseudomonas aeruginosa.

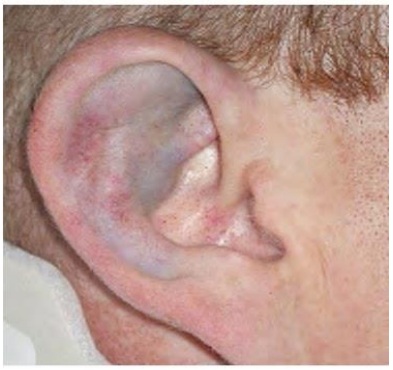
Cartilage necrosis may occur if cartilage is not adequately covered with skin following wound repair, or following infection. Use of cartilage sutures is a potential risk.

Management of pinna injuries

- Wounds where cartilage is visible, any laceration extending into the auditory meatus, or auricle avulsions should be referred to ENT SHO bleep 8619.
- Lacerations not involving the cartilage may be glued or sutured depending on depth and width / area – seek senior advice.
- Pinna contusions or auricular haematomas should be referred to ENT SHO acutely.



Pinna contusion



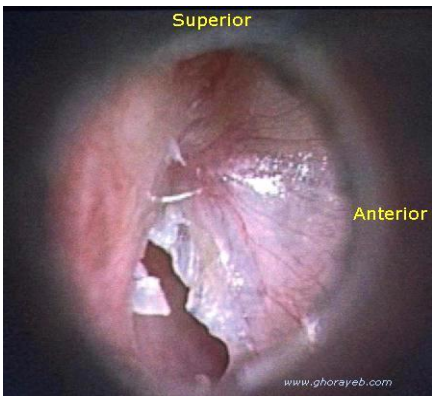
Auricular haematoma

Tympanic membrane (TM)

- May perforate following a blow to the side of the head
- Penetrating ear injuries can occur following insertion of foreign bodies into the ear such as cotton buds
- Spontaneous healing usually occurs but patient may have temporary hearing impairment

Management of penetrating ear injuries

- Advise child to avoid swimming and refer to ENT to follow up in clinic in 4 weeks time to assess hearing / ensure healing has occurred. Email referral and a copy of the notes to: **uhsussex.entoutpatients.emergencies@nhs.net**
- Significant trauma / vertigo / persistent vomiting – refer to ENT SHO acutely
- Prophylactic antibiotics are NOT required for traumatic TM perforation.
- If evidence of current infection → use oral antibiotics e.g. co-amoxiclav or Clarithromycin for children with penicillin allergy (see BNF for doses)



Perforated Tympanic membrane