

A GUIDE TO AVULSION INJURIES



By **Laura Crawford**

What is an avulsion injury?

The complete displacement of a tooth from its socket. An avulsed permanent tooth is a true dental emergency and in practice you should be prepared to offer immediate advice over the phone and have understanding of the management of such injury.

Emergency information over the phone for first aid

- Find the tooth, pick it up by the crown- avoid touching the root surface
- Wash gently under cold running water for 10 seconds
- Place tooth back in socket and hold in place with clean handkerchief
- If not possible place in suitable storage medium e.g. milk and attend dental practice immediately

It is unlikely that a patient will present with a re-implanted tooth, therefore it is likely you will provide the first stage of management in dental practice.

Patient assessment

While there is an emphasis on the speedy reimplantation of avulsed teeth it is important to consider the patient as a whole and assess as per any dental trauma.

- Medical history
- Mechanism of injury
- When did the injury occur?
- Where did the injury occur?
- Loss of consciousness
- Previous injury to the tooth?
- Has the injury changed the way you bite?
- Rule out alveolar fractures
- Assess tetanus status

- Extra oral and intra oral examination- including assessment of soft tissues for any other injuries

Avulsed Permanent Incisor – Open Apex

For these you should:

- Administer local anaesthetic
- Irrigate socket with saline
- Reposition
- IOPA radiograph to assess position
- Add a flexible splint for 2-4 weeks if >60 minutes extra oral time
- Prescribe antibiotics for seven days (remember check for allergy)
- Recommend chlorhexidine mouthwash for one week
- Give post-operative instructions
- Follow up in 7-10 days
- Perform clinical and radiographic assessments at 2 weeks, 4 weeks, 3 months, 6 months and yearly there after- monitor for signs and symptoms of loss of vitality (tooth non-responsive to vitality testing, tender to percuss, change of colour, sign of draining sinus).

Avulsed Permanent Incisor – Closed Apex

For closed apex reimplantation instructions are the same as per open apex above however at 7-10 days post reimplantation root canal treatment must be commenced.

- 7-10 days post reimplantation
- Place calcium hydroxide as intra-canal medicament for up to one month
- Follow with suitable root canal filling material
- Splint removal at 2 weeks as per open apex

- Follow up at 2 weeks, 4 weeks, 3 months, 6 months and yearly there after as per open apex.

Patient advice post-reimplantation

Patients should:

- Avoid contact sport
- Have a soft diet for two weeks
- Brush their teeth with a soft toothbrush
- Use chlorhexidine mouthwash two times a day for one week

Dento-alveolar Splint Fabrication

Non-rigid splinting

Here are a few tips to ensure you get your splint right:

- Adjust the length of the wire so it extends one to two teeth on either side of repositioned tooth
- Reposition the tooth
- Prophylax the enamel with pumice
- Apply etchant and bonding solution
- Place a dab of composite in the centre of the facial surface of the tooth to be bonded
- Position the wire on to the composite
- Set the composite
- Add additional composite so the wire is covered, especially at the distal terminal ends
- Smooth the composite to ensure that there are no rough surfaces that might irritate the soft tissue
- Prescribe chlorhexidine mouthwash for one week.

Good luck!

Laura Crawford ■

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