

MEDICAL GUIDANCE

DENTAL INJURY

This is a guide for anyone responsible for the wellbeing and safety of hockey players during training or competition. It is intended to assist in providing immediate care in the event of an orofacial or dental injury when a dentist is not present.

For clarification the following definitions may help:

- Subluxation - The loosening of a tooth after impact, often diagnosed by associated bleeding around the collar of the tooth. The tooth MAY NOT be in a different position
- Lateral luxation - The severe loosening AND displacement of a tooth in a lateral or front/back direction, often accompanied by interference with the occlusion (bite).
- Intrusion - The shortening of a tooth when it has been pushed deeper into the socket
- Avulsion - The complete loss of a tooth from its socket – “tooth knocked out”

Subluxation/Lateral Luxation

- Where a tooth has been loosened and displaced, removal from the FOP is advised and it is appropriate to visit the dentist as soon as possible – Immediately if the tooth is very unstable or there is interference with the bite, otherwise within 24 hrs

Care should be taken to ensure any loose tooth is not further loosened or lost by allowing the athlete to return to play. These can be swallowed or aspirated, and the potential for successful treatment may significantly decrease.

Intrusion

- Where a tooth is pushed root first through the tip of the tooth socket
- The tooth will require repositioning by a dentist
- Athletes with intruded teeth should be removed from competition due to the potential for further damage to the tooth or surrounding structures (sinus, regional nerves and vessels)

Avulsion

- In all cases where the player is conscious, the “gold standard” for treatment is the immediate replacement of the tooth back into its socket.
- Where there is visible contamination of the tooth it may be cleaned with a brief and gentle rinse under a cold tap or bottled water of no more than 10 seconds – handle the tooth by the crown only, and DO NOT “scrub” it.

- If replacement into the socket is not possible (for example, unconscious or uncooperative patient), the tooth may be stored temporarily (**maximum 30 to 60 minutes**):
 - (i) In a container with fresh cold milk
 - (ii) In the vestibule/pocket of the cheeks or lips in saliva (conscious players only)
 - (iii) In a commercial tooth storage system if one is available.

The potential for saving the tooth diminishes significantly with the passage of time and all efforts should be made to replace the tooth in the socket immediately to avoid permanent loss.

Generally, there is a significant amount of pressure dysesthesia following an avulsion, so the replantation of the tooth should not be significantly uncomfortable. On occasion, the socket may require a gentle rinse with saline or water in order to remove old clot or other debris.

Tooth fragments

- In the case of tooth fracture, the tooth fragments should be located and taken with the player to the dentist who may be able to “reattach” the fragments into the original position
- Where tooth fragments cannot be found and they are associated with a laceration to the lips a visit to the dentist can confirm that they are not within the lip.
- In an unconscious or “altered” conscious athlete, it should be assumed that these have been swallowed or aspirated, which may necessitate additional imaging to locate them.

Lacerations to the lips

- Intra oral and extra oral lacerations of the lips, tongue, gingiva (gums) or other perioral tissues should always be sutured carefully to maintain proper anatomy, reduce the potential for infection and minimize scarring or other sequelae. This should preferably be done at the FOP when it can be done successfully.
- Where appropriate, deeper cuts may also require an additional layer of subcutaneous sutures. Lacerations that go all the way through the tissue usually need a three-layered closure.

Prophylaxis

- Where contamination of an avulsed tooth has occurred, the Tetanus prophylaxis status of the athlete must be checked, and if needed a tetanus vaccination is advised
- In the case of avulsion or luxation injuries, antibiotics should be given to prevent infection caused by the bacteria entering and contaminating the socket

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