

## **Injury Prevention: Dental Injuries**

Blood supply to the head is abundant so that any injury to the face or mouth bleeds profusely. In the case of dental/mouth injuries blood mixing with saliva increases the risk of blood-borne infection.

When providing any care wear gloves to reduce this risk.

With all dental injuries tooth fragments must be recovered otherwise a chest X-ray is required to exclude inhalation.

Dental injuries can also occur with problems such as fractured mandible, fractured cheek, concussion or unconsciousness. These problems must also be managed. Only a permanent (second) tooth should be replaced into the socket, and only if the athlete is conscious.

### **Permanent Tooth Knocked Out of the Socket Completely (Avulsion)**

Any dental injury is distressing especially when a permanent tooth is knocked out. Teeth that are reinserted into their socket within twenty minutes have the best chance of surviving. Immediate care provided by the Sports Trainer at the scene will determine the fate of the injured tooth.

### **Management**

1. Locate the tooth and recover all tooth fragments.
2. Holding tooth by the crown (white part) carefully rinse dirt from the tooth with one of the following:-
  - Best Option – Splinting Disc (in Dentist In A Box from Sports Medicine Australia)
  - Second Option -Milk
  - Third Option -Water

If you can re-insert the tooth:-

1. Immediately replant tooth in its socket using other teeth as a guide.
2. Stabilise replanted tooth is necessary by:
  - Best Option – Splinting Disc (In Dentist In A Box from Sports Medicine Australia)
  - Second Option- Biting into towel or handkerchief.
  - Holding tooth in place by finger pressure.

If you cannot re-insert the tooth:-

1. Keep the tooth moist by placing tooth in:
  - Best Option – Saline Container (in Dentist In A Box from Sports Medicine Australia)
  - Second Option -Container of Milk
  - Third Option -Athlete's mouth.
1. Fold a small gauze square several times to make a pack that is placed over wound.
2. The athlete closes their teeth onto the pack applying firm biting pressure to control bleeding.
3. Attend a dentist as soon as possible.

### **Chipped or Broken Teeth**

A common injury that can affect any tooth. The injured tooth may be painful to temperature change or movement of air across the tooth surface by breathing through the mouth. Covering the exposed area of tooth provides relief. Bleeding from the inside of the mouth and lips can occur due to the jagged or broken edges of affected teeth.

1. Recover and store the broken tooth fragments to aid the dentist. (The recovered tooth fragments can be temporarily but securely attached with splinting material in Dentist In A Box from Sports Medicine Australia.
2. Attend a dentist as soon as possible.

### **Tooth loosened or pushed out of position (Luxation)**

A permanent tooth may be loosened or moved out of position but not completely out of its position.

The management of this includes:

1. Move the tooth into the correct position as soon as possible.
2. Stabilise replanted tooth if necessary by:
  - Best option – Splinting Disc (in Dentist In A Box from Sports Medicine Australia)
  - Second Option -Biting into towel or Handkerchief.
  - Third Option -Holding tooth in place by finger pressure.
1. 3. Attend a dentist as soon as possible.

## **IMPORTANT RULES WHEN MANAGING DENTAL INJURIES**

- DO NOT store the tooth in dry gauze or tissue
- DO NOT touch the roots (yellow area)
- DO NOT scrape or rub the root surface
- DO NOT scrub the tooth
- DO NOT sterilise the tooth
- DO NOT let tooth dry out

### **Mouthguards**

Poorly fitted mouthguards are uncomfortable to wear, affect speech, breathing and swallowing. These inexpensive mouthguards require little or no fitting, provide minimal protection and risk blocking the airway in an unconscious athlete.

A mouthguard is protective only if an adequate thickness of mouthguard material (4mm- thickness of 2 matches) covers vulnerable areas “the biting surfaces of the upper teeth, the visible surfaces of the six front upper teeth upon which the lips rest.

Sports Medicine Australia recommend custom-fitted mouthguards for all contact sports participants to reduce the risk and severity of dental injuries because they are well fitting and professionally made, can accommodate the unique arrangement and number of teeth and ensure adequate thickness of material in vulnerable areas. The mouthguard should also cover the bony gum area finishing close to the junction of the inside of the cheek. A boil and Bite (self-moulded) mouthguard cannot provide a good fit by sucking, biting on the guard or provide adequate thickness of material in vulnerable areas.

No mouthguard Last Forever Damaged or Worn Mouthguards Provide No Protection, Only a False Sense of Security

### **Mouthguard Use & Care**

- Don't share mouthguards. They should only be worn by the player for whom have been made.
- Don't store a mouthguard where it may be subject to excessive heat build-up which may cause it to distort.
- During use, take mouthguard out after quarter/half of play; rinse it and your mouth with water before re-inserting. At the end of play rinse you mouth with water, wash mouthguard with soap and warm (not hot) water then rinse it with cold water.
- Store the mouthguard in its container when not used. The container should have ventilation holes that allow the guard to dry and encourage air circulation preventing any unpleasant odour and smell.

Before each game the athlete should check their dry mouthguard in good light for any visible tears, particularly where the mouthguard material is thin or has worn

away. Also they should run a finger along the non-fitting surface to identify any rough areas that may indicate splits or cracks of the guard. This surface must be checked for similar damage following any heavy blow to the mouth or jaw.

With use, the biting surface of any mouthguard may flatten, wear or become dangerously thin over the biting edges of the front teeth. Excessive thinning on the biting surface of the mouthguard allows players to bite through the mouthguard during use. If this occurs no protection is provided.

Get mouthguards checked by a dentist:

- Before each season of play
- If unsure at any time about a mouthguard

It is easier and cheaper to replace a mouthguard than replace a lost tooth.