

HANDBOOK OF ORAL HEALTH CARE

For

**School Teachers and
Community Health Workers**

SECOND EDITION



Edited by

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CHAPTER 10

First Aid Treatment of Dental Emergencies

Folake Lawal

Objective: The chapter describes:

- (a) the dental first aid kit.
- (b) common dental emergencies and their first aid treatment.

Introduction: Dental Emergencies

Dental emergencies and injuries can occur at any time due to accidents or as complications to a prior treatment procedure. These dental emergencies or injuries may require first aid treatment to be administered before taking the person affected to the dentist. Accidents can occur but knowing what to do under the circumstances in any given situation can make the difference between saving and losing a tooth.

Dental injuries can be avoided and prevented by taking certain precautions like wearing a mouth guard during any sports and recreational activities that may cause injury to the teeth and gums and also not biting on hard foodstuffs that may crack the tooth.

Dental First Aid Kit

It is always best to be prepared for any dental emergencies and this makes having a Dental First Aid Kit essential. The dental first aid kit should contain the phone number of your dentist (both home and office), saline solution, clean handkerchief, some gauze and or cotton balls (preferably sterile), a small clean container with a lid, paracetamol or ibuprofen tablets. Sealable plastic bag (to dispose of bloody gauze or swabs), toothbrush, tweezers, wash cloth, bottled water, salt, paraffin or dental wax, medical exam gloves. Drugs like aspirin should be avoided as it is an anticoagulant and it may cause excessive bleeding in case an emergency dental treatment is to be done.

Common Dental Emergencies

This include: toothache, chipped or broken tooth, knocked out tooth, extruded tooth, objects caught between teeth, lost filling, lost

crown, broken braces, loose brackets, abscesses, bleeding extraction socket, soft tissue injuries and dislocation of the jaw.

Common Dental Emergencies and their First Aid Treatment

Toothaches: The mouth should be thoroughly rinsed with warm saline water. Dental floss can be used to remove any food particles that may be stuck in between them. If there is a swelling, a cold compress should be applied to the outer side of the affected area. Drugs like aspirin or clove should not be put directly against the gums as they may cause tissue burns. Pain killers like paracetamol can be used to relieve pain. The dentist should be consulted immediately.

Chipped or Broken teeth: Teeth can get chipped or broken due to accidents or trauma (Fig. 1). It is a very common occurrence, especially among children. The following should be done:

- Broken part of the teeth should be safely kept if found and presented at the dental clinic.
- Rinse the mouth and broken pieces with warm saline water.
- In case there is any bleeding, place a wet gauze on the area and bite hard on it for 10 minutes to stop the bleeding.
- Apply cold compress to the outside of the mouth, cheek, or lip near the broken or chipped tooth to keep any swelling down and relieve pain.
- The dentist should be visited immediately.

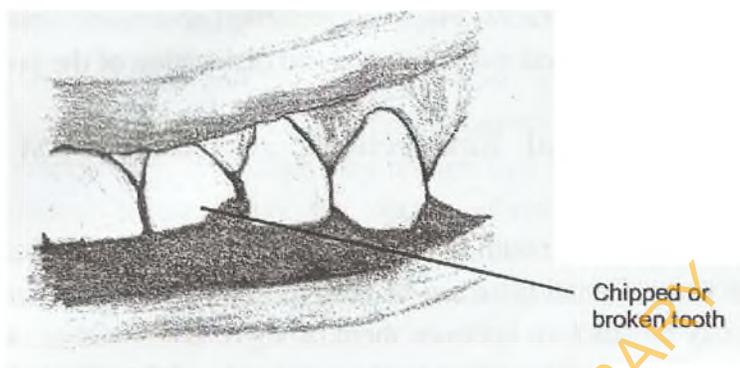


Fig. 1: Chipped or broken teeth

Knocked out tooth: Teeth can get knocked out of their sockets due to trauma (Fig. 2) and an immediate action in this case can save the tooth and increase the chances of “replantation” of the tooth back into its socket. Firstly the tooth must be retrieved and rinsed gently with water if dirty without scraping its root surface or removing attached fragments. Care should be taken when holding the tooth, the crown (the part that is usually exposed in the mouth) and NOT the root should be held. If the root is held the periodontal fibres attaching the tooth to the bone may be damaged thereby preventing the attachment of the tooth. The mouth should be rinsed with warm saline water and debris removed if present. The tooth should be inserted back into the socket if it is clearly visible and there are no other broken fragments near or in the socket. The tooth should not be forced into the socket and it should be properly placed. If it is not possible to place the tooth back into the socket, it should be placed in the mouth between the cheek and gum to keep it moist or placed in milk or saline water in a container. The tooth can also be placed in a product containing cell growth medium,

such as Save-a-Tooth. The tooth should then be taken to the dentist as soon as possible along with the patient. The tooth should not be allowed to dry out. The best and the highest chance of saving a knocked out tooth is for the tooth to be returned back to its socket by the dentist within 1 hour of being knocked out.

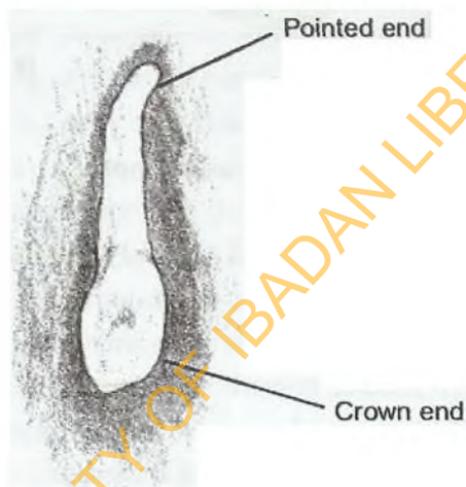


Fig. 2: Knocked out tooth

Extruded teeth (Teeth pushed out of position) (Fig. 3): The dentist should be consulted immediately. The tooth could be pushed back gently by applying finger pressure on the tooth or by biting on it without force. In some cases the tooth may be painful and make touching the tooth difficult. In this case the patient should be taken to the dentist immediately. Pain killers (analgesics

such as paracetamol) and antibiotics such as ciprotab can be used to relieve pain and prevent infections.

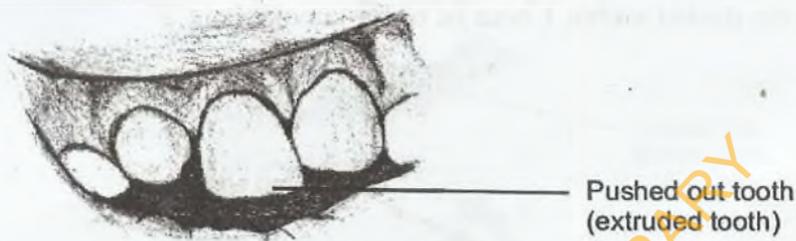


Fig. 3: Extruded tooth

Objects caught between teeth: A toothpick or dental floss can be used to dislodge any objects or food particles that get caught between teeth. If the toothpick or floss are unable to remove the object, the patient should consult the dentist. Sharp instruments like pins should not be used to remove the objects as they may injure the gums or other soft tissues of the mouth.

Lost dental fillings: A sugarless gum can be stuck into the cavity as a temporary measure after which the patient should visit the dentist immediately. Leaving the cavity open for a long period of time can cause tooth sensitivity.

Lost crown: If the crown (artificial cap that is put on teeth in some cases) falls off, it should be kept safely and the dentist visited immediately for assessment and recementation of the crown. If the dentist is not within reach and the tooth causes pain, a little clove oil on a cotton swab should be applied to the

sensitive area of the tooth and care should be taken not to touch the soft tissues of the mouth with the clove oil. If possible the crown should be slipped back onto the tooth by coating the inner surface with denture adhesive or even toothpaste to help hold the crown in place. Super glue should not be used.

Broken braces wires: Braces worn for orthodontic treatment have the risk of its components being damaged or out of position. The wires can break or stick out of the band or brackets causing trauma to the cheek, lips, gums or tongue. In this case, the wire can be repositioned with help of the eraser end of a pencil, or the end covered with a gauze, cotton ball, wax, or chewing gum. The patient should immediately visit the dentist so that the wires can be cut and replaced or repositioned. The wire should never be cut by the patient so as not to cause damage to other tissues or end up being swallowed or inhaled. This cut piece of wire can get dislodged into the throat.

Loose brackets and bands: Loose brackets can be reattached with the help of orthodontic wax. Another option is to place the wax over the bracket to cushion it. If the problem is from a loose band, the bracket should be saved and the patient should consult the specialist dentist immediately. The dentist will then re-cement or replace any loose brackets or bands.

Tooth abscess: An abscess is an infection that occurs in relation to a tooth and can be seen as a small pimple or swelling in the gums next to the offending tooth. It may also appear as an extraoral (outside the mouth) swelling opposite the affected tooth. In a chronic infection, pus discharge from the area can be seen. This

infection can turn fatal if not treated and handled appropriately as soon as possible before it spreads to other areas. The dentist should be consulted as soon as an abscess is detected. In the meantime, the patient should rinse the mouth with warm saline water to help drain the abscess intra orally. Antibiotics such as ciprofloxacin and analgesics such as paracetamol can be administered to the patient to prevent the infection from spreading and to relieve pain. Patient should never apply heat to the area from the outside.

Bleeding extraction socket: The mouth should be thoroughly rinsed with water. Pressure should be applied to the bleeding socket either by biting hard on a wet gauze or clean handkerchief or holding it in place with the hand for about 10-15 minutes (Fig. 4). If bleeding does not stop, patient should be immediately taken to the dentist or a hospital emergency room where a dentist can be contacted. The gauze must be in place till patient is attended to.

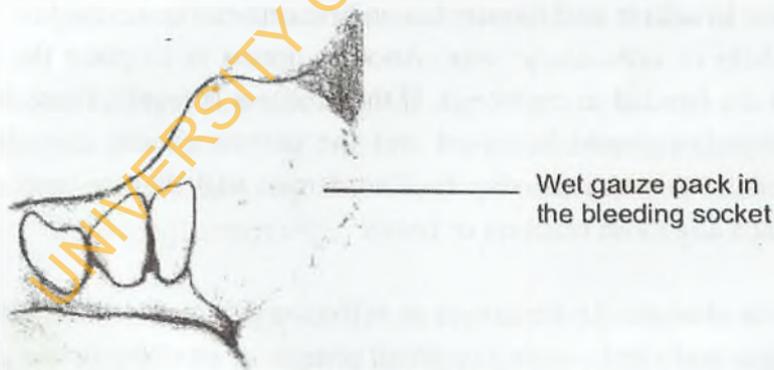


Fig. 4: Wet gauge pack in a bleeding socket

Soft tissue injuries (Bitten lip or tongue): Any injury to the soft tissues like the lips, tongue, cheek or gums can result in bleeding. The bleeding can be controlled by first rinsing the mouth with mild salt-water solution and pressure applied on the bleeding area by holding a piece of moistened gauze over the area for 10-15 minutes. If the bleeding does not stop, patient should be immediately taken to the dentist or emergency room in a hospital. The moistened gauze should be held in place till the patient is treated.

Dislocation of the jaw: occurs when the lower jaw becomes dislocated from its usual position. This can happen when a person opens his mouth too wide. It can also be dislocated when the face is hit too hard from a blow. The head of the lower jaw which is part of the joint surface moves too far forward out of the joint position. The mouth hangs in the open position. The patient feels very uncomfortable. The patient should be reassured, the cause of the dislocation and what is to be done should be carefully explained to the patient. The health personnel should stand in front of the patient who should sit upright. The health personnel should place the two thumbs wrapped with gauze in the patient's mouth. The thumbs should rest on the lower back teeth and the other fingers supporting the lower jaw from outside. Holding the lower jaw firmly, press hard with the thumbs and at the same time rotate the chin upwards. The jaw will click back into position and the patient will feel relieved instantly. A bandage could be tied round the head to support the lower jaw in this relieved and reduced position. If after two or three attempts, the dislocation cannot be reduced or if the dislocation had occurred for more than three days,

the patient should be referred to the dentist or a hospital where a dentist can be called to attend to the patient.

Facial and jaw fractures: Fractures of facial and jaw bones can occur from falls, fight and road traffic accidents. First aid treatment of these fractures should be put in place before the patient is referred to the hospital. When injuries occur, the whole of the face and mouth is first washed with normal saline or clean water so that the region of the fracture will be clearly seen. The mouth should be cleared of debris from broken teeth, sand and leaves so that the patient can breathe well. The presence of fracture is indicated by loss of continuity of bones when they are felt, change in the color of the skin in the region of the fracture and disarrangement of the teeth. The bleeding should be arrested with pressure packs made of gauze or clean handkerchiefs or cloth. If the bleeding fails to stop or patient is unable to breathe well, patient should be referred to the hospital immediately. However, if bleeding stops and patient is able to breathe well, the fracture ends of the broken bones should be kept in alignment with each other by asking the patient to bite together. This will reduce the fracture and pain. A bandage should be tied over the head and below the lower jaw to keep the reduced fracture in place. Tetanus toxoid, antibiotics and analgesics should be given to prevent infections and reduce pain. Patient is then referred to the hospital immediately.

Conclusion

Proper attention to a dental emergency reduces distress, the risk of permanent damage as well as the need for more extensive and expensive treatment.

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