Tooth Fracture

A tooth consists of the root and the crown. The yellowish, softer dentin is covered by enamel to form the crown. The crown is the visible white part of the tooth. The tooth is attached by the root to the tooth socket by small ligaments. The pulp of the tooth contains the nerves and blood vessels. These are found in the pulp chamber and root canals.

THREE MAIN AND DIFFERENT TOOTH INJURIES ARE:

- A fracture usually splits the tooth into two or more parts, one attached to the socket and one free.
- A luxation shifts the tooth position at the level of the root but does not remove it from the socket.
- An avulsion removes the entire tooth from its socket.

A fracture can be classified as a root fracture, broken tooth (crown fracture), or chipped tooth. They can also be broken down to fracture types of crown, crown-root, or root. Sometimes they are also broken down into two categories that are simple (no pulp involvement) or complex (pulp involvement). A crown fracture can involve the pulp.

Tooth fracture may cause problems ranging from cosmetic defects to tooth death. Involvement of the pulp is the most important factor in severity rather than the amount of the tooth affected. Pulp involvement can be identified by a bleeding site or a pink or red dot in the middle of the dentin. Pulp exposure can be very painful. Limiting nerve exposure to air, saliva, temperature changes, and the tongue will decrease the pain.

TREATMENT

- The root canal can be sealed by covering the nerve with a drop of a "super glue," or cyanoacrylate. The use of cyanoacrylate has not been approved by the US Food and Drug Administration. This is called an off label use. However, cyanoacrylate is currently used in dentistry for similar purposes.
- Gently biting into gauze or a towel will help control the bleeding. An exposed nerve requires a dental exam and care. Referral need not be immediate if the pain is controlled.
- Cover exposed dentin with a layer of zinc oxide or calcium hydroxide paste (Dycal) if it is available.

PREVENTION

- Most dental and associated injuries can be prevented or lessened by the use of a mouth guard. These should be worn in all contact.
- Mouth guards also prevent concussions in contact and non contact sports.

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