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# PRACTICE LIMITED TO ORTHODONTICS

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**Emergencies**

Dental and Facial Trauma

Dental or facial trauma is the main situation that an orthodontic patient may encounter that is truly a medical or

dental emergency. Your dentist, orthodontist, oral surgeon, or the emergency department at the hospital may

need to manage the situation as quickly as possible. Types of dentofacial trauma include an avulsed tooth, a

loosened tooth, a fractured tooth, and jaw fracture.

Avulsed Tooth

A tooth that has been knocked out of the mouth completely needs to be rinsed gently with milk, solution from a

Save-A-Tooth kit, saliva, or water and stored in milk, Save-A-Tooth solution, or saliva until it can be reimplanted

into the tooth socket. Try to handle the tooth by the crown and minimize contact with the root of the tooth

(which is normally inside the jaw). Ideally, the tooth should be reimplanted within 30 minutes of being avulsed.

The jaw area near the site of tooth avulsion needs to be evaluated for fractures that may affect the ability to

reimplant the tooth. Following reimplantation, an avulsed tooth will need to be splinted in place with a wire. The

tooth will probably need to have root canal therapy if it survives the reimplantation process and will need to be

monitored for other changes, such as root resorption and ankylosis

Loosened Tooth

A tooth may become loosened from a traumatic injury. In such situations, the tooth needs to be evaluated for

vitality and root fractures, and the adjacent portion of the jaw needs to be checked for fractures. A loosened tooth

may need to be splinted to the adjacent teeth to stabilize its position. Once stabilized, a loosened tooth should be

monitored for changes in vitality, as well as for root resorption and ankylosis.

Fractured Tooth

If a portion of a tooth fractures during an accident, the nature and extent of the fracture will affect what needs to

be done. A simple enamel fracture may require replacing the broken portion of tooth with tooth-colored filling

material or porcelain. Fractures that involve the dentin may be restored in a similar manner, or even require that a

custom crown “cap” be made for the tooth. If the fracture extends into the pulp chamber or “nerve” of the tooth

may require calcium hydroxide dressings or root canal therapy and later restorations. If the root of the tooth

fractures, the tooth may or may not be able to be retained, depending on the location and orientation of the root

fracture.

Jaw Fracture

If it is evident that one or both of the jaws have been fractured in an accident, limited jaw opening or abnormal

jaw movements on opening may occur. Jaw fractures need to be managed by an oral surgeon or at the emergency

department of the local hospital. Different types of splinting may be necessary to hold the jaws in proper position

so that union of the broken bone can occur.

Orthodontic Appliance-Related Emergencies

Emergencies related to orthodontic appliances may be managed temporarily by the patient until definitive

management can be made at the orthodontist’s office. Common minor orthodontic emergencies (and how to

manage them) are listed below.

Poking Wire

As teeth move or interdental spaces are closed, wire may begin to protrude from the terminal brackets at the back

of the mouth. Cover the protruding wire end with a piece of soft wax or clip the end with a clean wire cutter or

fingernail clipper. The end of the wire can also be clipped at your next scheduled appointment or at an

emergency visit.

Broken Bracket

Excessive forces from hard or sticky foods may cause a bracket to loosen from the tooth surface. Save any

brackets that come off of your teeth so that they can be replaced. If the bracket is loose and moving around on

the orthodontic wire, cover it with wax until it can be re-bonded to the tooth. It is best to have broken brackets

repaired in a timely manner to keep the teeth progressing through treatment on schedule.

Wire out of a Bracket

Food particles may sometimes push a wire out of a bracket. A clean pencil eraser or a pair of tweezers may be

used to push the wire back in place. If you cannot replace the wire, an emergency visit may be necessary.

Loose Band

Bands are metal rings that fit around teeth (usually molars) to support heavier orthodontic forces from certain

appliances. A loose band may feel as if it is moving up and down on a tooth and may poke into the nearby gum

tissue. Stabilize loose bands with wax until they can be recemented at your next scheduled appointment or at an

emergency visit.

Loose Expander

The bands that support rapid maxillary expansion appliances can loosen. If this occurs, one or both sides of the

appliance may feel as if they are moving when a patient chews. Loose expanders need to be recemented in a

timely fashion at your next scheduled appointment or at an emergency visit.

Loose Transpalatal Arch

A transpalatal arch (TPA) extends across the palate, often to support maxillary expansion once the expander has

been removed. Sometimes the metal wire that comprises this appliance can fatigue and break. TPAs can also

come unseated from their attachment points. A loose TPA may move around in the palate near its attachment

point at a band on an upper molar tooth. It may also hang downward in the mouth or push against the palate.

Loose TPAs temporarily may be stabilized with wax and need to be recemented in a timely fashion at your next scheduled appointment or at an emergency visit.

Loose Baby Tooth

Deciduous, or baby, teeth are normally resorbed by the underlying permanent teeth as they erupt. If you have a

baby tooth incorporated into your orthodontic appliances, it may loosen over time and need to exfoliate. A loose

baby tooth may move around on the orthodontic wire, or the gum in the area may feel sore. The orthodontist can

help remove loose baby teeth at regularly scheduled or emergency office visits.

Missing Elastomeric Tie

The elastomeric ties, or O-rings, that encircle the brackets can sometimes come off. If you have self-ligating

brackets with doors that hold the orthodontic wires in place, the doors will keep the wires in place. The

elastomeric ties may be replaced at the next scheduled appointment. If you have conventional orthodontic

brackets, the elastomeric tie should be replaced in a timely fashion at an emergency visit.