

Talking with Patients

Dental Trauma (Avulsed Teeth)

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WHAT IS IT?

Accidents involving the head and mouth can result in different types of dental trauma such as tooth fracture, tooth loosening, and avulsion. *Avulsion* means that the entire tooth is displaced out of its socket. A tooth can be knocked out when all the fibers that maintain the tooth in the bony socket are ruptured.

Avulsion is more common in front teeth than in back teeth and can occur in both baby and permanent teeth. It is a frequent type of trauma among active kids, teenagers, and adults who practice contact sports, skating, and biking, for example. Avulsion also occurs commonly in accidents involving children at playgrounds.

HOW IS IT DIAGNOSED AND TREATED?

The diagnosis of an avulsed tooth is relatively simple. Other types of trauma, such as intrusion or crown fracture, might be confused with avulsion, but if the tooth is found intact and out of its socket, the diagnosis is straightforward.

For permanent teeth the best possible outcome of a dental avulsion is the successful replantation of the avulsed tooth back into its natural socket, followed by the healing of the periodontal ligament, which holds the tooth in place. If the avulsed tooth is found, the chances for a successful replantation are very good if (1) the tooth remains out of the socket for less than 30 minutes, and (2) the tooth is kept moist while

out of the mouth. The sooner the tooth is replanted, the better.

If you are present when someone has a tooth knocked out, after tending to the victim and ensuring he or she is well and/or being assisted by proper emergency personnel, try to locate the avulsed tooth and save it in a proper medium. Special solutions prepared specifically to serve as storage mediums for avulsed teeth can be found in drugstores. Other options that are readily available include milk and saline. The tooth must not be allowed to dry out. Once the tooth is located and placed in a clean container, the patient and the tooth should be brought to a dental office as soon as possible. After 30 minutes the remaining ligament tissue on the



Left, Frontal intraoral photograph of an 8-year-old boy who has suffered the avulsion of an upper tooth. Right, Same boy after the tooth has been replanted and splinted. The splint helps keep the replanted tooth in place; the splint is removed after a few weeks. (Photographs courtesy of Dr. Alessandra Ritter, Department of Endodontics, University of North Carolina, NC, USA)

root surface of the avulsed tooth starts deteriorating, diminishing the chances for a successful replantation.

Baby teeth should not be replanted because they can affect the development of the permanent teeth.

CONCLUSIONS

Tooth avulsion is a type of dental trauma in which the tooth is dis-

placed from its socket. Avulsion can occur upon an abrupt impact to the head and/or mouth and is frequently associated with the practice of contact and "extreme" sports such as basketball, hockey, biking, and skating. If a permanent avulsed tooth is retrieved soon after the injury and kept clean in a moist environment, it can be successfully replanted. A plastic

mouthguard, preferably custom made by a dentist, can effectively prevent most dental traumas, including avulsion.

Parents, guardians, teachers, and coaches should be familiar with the described protocol for properly assisting a victim of dental avulsion.

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