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THE PEDIATRIC DENTAL REPORT

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Pediatric Dental Trauma: A Sign That Summer Has Arrived!

Incidence of trauma to primary teeth seems to spike as weather allows for more outside activities. A streak of warm temperature always brings a string of emergency phone calls or visits to the office. There are some big differences between the permanent and primary tooth trauma algorithms on how these type of injuries are managed.

Avulsion: Almost all literature recommends not re-implanting a fully avulsed primary tooth. The physiology of a primary tooth does not allow for the same potential of reattachment even in conjunction with pulp therapy and splinting. That being said, some case reports document re-implanting a freshly avulsed primary incisor with a positive outcome, however the potential hazards outweigh the potential benefits especially with a pre-cooperative child.

Luxation: Unless significantly mobile, this injury is monitored clinically without splinting. A general time frame is 3-4 weeks to establish reasonable firming in the socket. Extraction should be

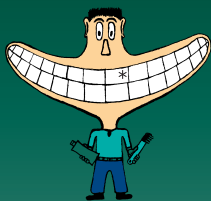
considered if mobility does not resolve. A lingually or facially luxated tooth can self reposition over time. A tooth that is luxated and is in traumatic occlusion is more problematic and should be considered for extraction. If a patient is seen directly after a tooth is displaced in a buccal or lingual direction, repositioning with firm digital pressure can be attempted but can be a little uncomfortable. We typically use nitrous oxide when attempting a repositioning procedure. An intruded tooth is also monitored, with re-eruption hoped for over several months depending on the severity of the intrusion. This type of injury can be hard on the pulp, so vitality should be monitored periodically. Possible secondary trauma to the developing permanent successor should be discussed with parents. We have not seen significant problems in this regard, but rather a mild enamel defect that can be easily restored later is seen in the majority of cases. If an intruded primary tooth becomes ankylosed, especially early

on, then extraction could be considered, but that too is a relatively rare event.

In cases of moderate-to-significant dental trauma, a base line radiograph is indicated. Even mild trauma usually indicates a film to rule out obvious things like root fractures. Equally important, root resorption or apical lucencies can be easier to diagnose by comparing a subsequent film. The earliest radiographic changes show up in 6-8 weeks post incident. A typical scenario is a trauma evaluation and base line film for a new traumatic incident. A follow up trauma check and film in 2 months is typically recommended. From there, if the patient is asymptomatic, a trauma check—say with recall in 4-6 months with a film if anything clinically suspicious— would be a reasonable guideline.

If a pulp becomes necrotic secondary to trauma then pulp therapy is indicated. External root resorption can occur, but usually no therapy is needed. It is not

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(continued from front side)

unusual to see shorten roots on primary maxillary incisors picked up incidentally on a radiograph. Usually it is self-limiting and the teeth may even be mobile. Early exfoliation is likely, but no intervention is necessary. Calcific metamorphosis can also be spotted on a radiograph along with a yellowish tint to the crown. Clinical monitoring is the only thing usually necessary.

A dark clinical crown developing after trauma is a very common concern of parents. The literature tells us that 65-70% of the time nothing else will develop and a tooth will exfoliate normally. The other

30% of the time, other pathological changes will occur. We normally tell parents to watch for signs of infection i.e. discomfort, swelling, or mobility and to call the office if anything appears to be heading in that direction.

Dental trauma in pediatric patients is a common malady which peaks in summer. Having a simple "flow chart" in mind for radiographic and clinical follow-up will take some of the guesswork out of how to manage incidents such as these. We are happy to offer recommendations or advice over the phone if the need arises. 

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