

# The Luxated Permanent Tooth: information for dentists

Before the accident the tooth was held in place by fibers and cells called the periodontal ligament. These fibers were torn apart, many of the cells were damaged and the surrounding bone was fractured as a result of the accident.

## What do we know?

- When displaced teeth are repositioned they are quite likely to be retained for a lifetime<sup>1</sup>.
- The longer the tooth has been displaced without repositioning, the more difficult repositioning becomes because a blood clot forms that makes repositioning less successful. By 48 hours it is unlikely the tooth can be repositioned to its original location.
- About 40% of displaced teeth require root canal treatment, usually within the first year<sup>1</sup>.
- The dental pulps ('nerves') of about 40% of displaced teeth will show evidence of 'scarring' but will remain vital and not require any treatment<sup>1</sup>.
- The crown might become darker with time as the 'scarring' process continues.

## Responsibilities of the dentist

- Inform patient/parent/caregiver of the prospects/outcomes of repositioning the tooth
- Attempt to reposition the tooth if the patient/parent/caregiver wishes
- Prevent/control infection
- Splint the tooth and remove the splint at the appropriate time
- Begin/complete root canal treatment if required

## Responsibilities of the patient/parent/caregiver

- Allow radiographs for diagnosis of damage
- Cooperate for repositioning/splinting
- Comply with instructions if antibiotic coverage is required
- Return for post-operative splint removal/radiographs at the appropriate times as described by the dentist. (Usually splint removal at 6-8 weeks and radiographs at that time, 6 months and then yearly)

## Management of luxations (displacements)

Two periapical radiographs taken at different angles, at the time of trauma.

Reduce luxation and fix tooth to flexible splint for 2 weeks or 6-8 weeks if major comminution of alveolar bone has occurred<sup>2,3,4</sup>

Examination/radiographs at 2 weeks, 3 months, 6 months, 12 months  
Parents/patient should be informed of the signs and symptoms of pulp necrosis. Clinical and radiographic tests for vitality first year and radiographic vigilance for pulp canal constriction. Do not perform prophylactic root canal treatment for asymptomatic pulp canal obliteration.

1. Nikoui M, Kenny DJ, Barrett EJ: Clinical outcomes for permanent incisor luxations in a pediatric population: III. Lateral luxations. Dent Traumatol 2003;19:280-5

2. Andreasen FM, Andreasen JO. Luxation injuries. In: Andreasen JO, Andreasen FM, eds. Textbook and Color Atlas of Traumatic Injuries to the Teeth, 3<sup>rd</sup> edn. Copenhagen: Munksgaard; 1994. p. 318.

3. Roberts G, Longhurst P. Luxation injuries. In: Roberts G, Longhurst P, eds. Oral and Dental Trauma in Children and Adolescents. Oxford: Oxford University Press; 1996. p. 76.

4. Oikarinen K. Tooth splinting. A review of the literature and consideration of the versatility of a wire-composite splint. Endod Dent Traumatol 1990;6:237-50

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