

CLINICAL TIPS



AND EXTRACTS

Clinical Tips and Extracts

is a monthly column for sharing helpful hints with colleagues.

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TIPS IN MANAGEMENT OF LINGUALLY ERUPTING LOWER PERMANENT INCISORS

By Dr Naveen Kumar Vellore Loganathan

Staff Specialist, Westmead Centre of Oral Health: Paediatric Dentist, Sydney Paediatric Dentistry; Visiting Dental Specialist, Children's Hospital at Westmead; Clinical Lecturer, University of Sydney

In clinical practice, it's not uncommon to see parents concerned about lingually-erupting lower permanent incisors, especially when it's their first child. This is a frequent occurrence, especially with the permanent central incisor (see Fig. 1). Parents often get anxious when they discover two rows of teeth and may question whether it is acceptable to monitor the situation or whether extraction of the primary incisors is recommended. Firstly, it is necessary to understand the location of the developing lower permanent incisors in relation to the primary incisors. Studies have shown the prevalence of lingually erupting lower permanent incisors from 2.02% to 18.4%^{1 2 3} and interestingly belong to children who had arches of equivalent space (43.8%), compared to children with deficient (26.6%) and excess space (13.3%). Often dentists succumb to extracting the primary incisors with a view of helping the permanent incisors achieve a favourable position, establishing better oral hygiene in the region and fulfilling the demand from parents. Whilst parents' feelings should not be ignored in the decision-making⁴ and extraction may offer some value, it is worth also considering the child. For many this would be their first dental appointment, and starting with injections, extraction and unpleasant numbness may alter their cooperation towards future dental care.

Lingually erupting lower permanent incisors will slowly move forward with the help of the tongue, exert pressure on lower primary incisors and in turn help the retained primary incisors to exfoliate. Studies have proven that lingual eruption of lower permanent incisors is a self-correcting phenomenon (see Fig. 2) and a careful wait-and-see policy is the best approach³. However, some dentists and parents raise the question of "when should the retained lower primary incisor be extracted". In my clinical experience, I would consider extraction of a lower primary incisors only if it fulfills all of the following three criteria;

- 1) more than 50% of the lower permanent central incisor's crown has erupted,
- 2) the distance between the erupting lower permanent central incisor and the retained lower primary central incisor is greater than 2mm,
- 3) in addition to the first two criteria, the lower permanent central incisor has erupted and the lower primary incisor has not exhibited any pre-shedding mobility.

Though this criteria is not evidence-based, it would help a dentist who is in doubt decide when to extract and when to monitor a lingually erupted lower permanent incisor. In situations where the crowding is severe, two or more lower primary incisors are retained, one or more lower permanent incisors are congenitally missing or in doubt, it would be best to consult a specialist orthodontist or a paediatric dentist.

Fig 1. At time of presentation



Fig 2. After 12 months (no intervention)

