

# Letters to the editor

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## OMFS

### Referral pathways for impacted maxillary canines

I would like to highlight an ongoing challenge in the management of patients with impacted maxillary canines: the considerable variation in the quality and timing of orthodontic referrals. Despite longstanding guidance on the early detection of ectopic canines, we continue to see patients referred at a stage when treatment options become limited and the risk of adverse outcomes is increased – including root resorption of adjacent incisors.

A recent audit we conducted at St George's Hospital identified two recurrent issues. First, referrals were often submitted after the optimal window (average age at referral of 15.1 years) meaning the potential for benefits from interceptive treatment such as extraction of the deciduous canines reduces. The Royal College of Surgeons in England recommend that patients with suspected impacted maxillary canines are referred by age 12.<sup>1</sup> Secondly, many referrals for suspected impacted canines were made without radiographs. The British Orthodontic Society advises radiographs are taken from age ten for suspected impacted canines.<sup>2</sup> This can lead to delayed diagnosis and onward referral.

To address this, we have corresponded with all local referrers outlining key clinical indicators, age expectations, and radiographic requirements. Early findings from cycle 2 suggest clear improvements in referral timing. These gains rely primarily on consistent communication between general dental practitioners and specialist services.

Given the prevalence of impacted maxillary canines and the significant

implications of delayed diagnosis, I would encourage colleagues to review their local referral processes and ensure that essential radiographic information accompanies all suspected cases. Earlier, well-structured referrals not only support more predictable outcomes but also reduce inefficiencies across both primary and secondary care.

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### References

1. British Orthodontic Society and Royal College of Surgeons, Faculty of Dental Surgery. Management of the Palatally Ectopic Maxillary Canine. 2022. Available at <https://www.rcseng.ac.uk/-/media/files/rcs/fds/guidelines/2management-of-the-palatally-ectopic-maxillary-canine--revised-with-edits-25-jan-2023.pdf> (accessed 27 January 2026).
2. Isaacson K G, Thom A R, Atack N E, Horner K, Whaites E. Orthodontic Radiographs: Guidelines. 4th edition. British Orthodontic Society, 2015. Available at <https://bos.org.uk/professionals-members/advice-sheets-and-guidelines/orthodontic-radiographs-guidelines/> (accessed 27 January 2026).

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### Preventing maxillary root displacement

Displacement of maxillary posterior tooth roots into the maxillary sinus is a recognised complication of dental extraction, most frequently involving maxillary molars and, in particular, the palatal root of the first molar.<sup>1,2</sup> Although uncommon, such events can result in significant morbidity and may necessitate secondary surgical intervention.<sup>1</sup>

When extracting upper posterior teeth with reduced buccal bone height and a close relationship between the palatal or distal root and the maxillary sinus, a simple preventative adjunct has been employed. Prior to bone removal or application of luxation forces, an endodontic file is gently engaged into the canal of the root considered most at risk. The file is ligated with dental floss, with the free end secured around the assistant's finger to prevent inadvertent aspiration or loss. Light, steady

tension is maintained while controlled bone troughing and luxation are undertaken.

The use of endodontic files to assist in the retrieval of fractured or retained root tips is well established, with both clinical and biomechanical evidence supporting their effectiveness when appropriately applied.<sup>3,4</sup> Such use has also been shown to reduce the risk of further apical displacement during retrieval.<sup>4</sup> This approach is therefore not novel. However, the pre-emptive application of an endodontic file prior to displacement appears less frequently discussed.

Pre-engagement of the file provides resistance to apical migration during bone removal and force application. This may allow earlier luxation and more conservative bone removal in selected cases where concern regarding sinus involvement might otherwise lead to excessive surgical access. In some cases, the engaged file may also assist controlled delivery of the root once sufficient mobility has been achieved.

Appropriate case selection and caution are essential. Excessive force during file engagement may itself risk apical displacement, particularly in roots with wide or sclerosed canals, and effective coordination with an experienced assistant is required. This technique should therefore be reserved for clinicians familiar with surgical extraction principles and the management of sinus-related complications.

Although anecdotal, this preventative adaptation of an established retrieval technique may be considered as a simple adjunct in selected high-risk maxillary posterior extractions.

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### References

1. Seigneur M, Cloitre A, Malard O, Lesclous P. Teeth roots displacement in the maxillary sinus: characteristics and management. *J Oral Med Oral Surg* 2020; DOI: 10.1051/mbcb/2020029.