

Australian Uprighting Spring for Partially Impacted Second Molars

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Many ways of uprighting partially impacted second molars have been presented,¹⁻⁸ but these methods are often difficult for the clinician as well as for the patients. In this article, I will show a simple way to upright partially impacted second molars using a molar band, a lingual button, and an uprighting spring bent from Australian wire.

Technique

1. Band or bond the adjacent first molar with a molar tube. Bond a lingual button to the exposed surface of the partially impacted molar (Fig. 1).
2. Bend an uprighting spring from .014" round Australian wire* (Fig. 2). The distance between the molar stop and the spring should be same as the distance between the distal surface of the molar tube and the bonded lingual button. The molar stop can be rolled mesially or distally along the wire to adjust this distance.
3. Insert the spring into the distal end of the molar tube until the molar stop contacts the tube.

*TP Orthodontics, Inc., 100 Center Plaza, LaPorte, IN 46350.



Fig. 1 10-year-old female with impacted mandibular second molar (lingual arch pictured was removed before uprighting).

Cinch the mesial end of the spring by bending down the wire on the mesial of the molar tube. This will prevent the spring from rolling over or becoming dislodged.

4. Attach the hook to the bonded lingual button on the impacted second molar (Fig. 3). Progress should be seen rapidly after spring activation (Fig. 4). At each subsequent appointment, reactivate the uprighting arm of the spring if necessary by disengaging and re-engaging the hook from the lingual button.

Using this simple method, a partially im-

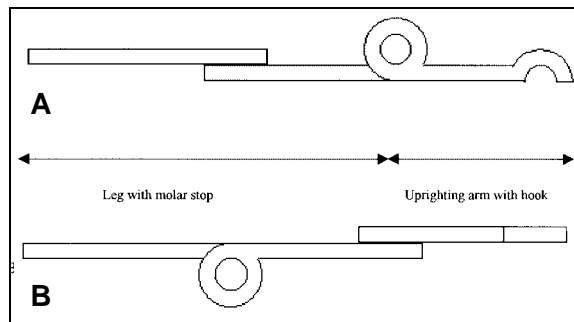


Fig. 2 Uprighting spring bent from .014" Australian wire. Left loop is molar stop; right loop is actual uprighting spring. Hook on right end engages lingual button. A. Occlusal view. B. Buccal view.



Fig. 3 Spring activated by attaching hook to lingual button on impacted molar.



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pacted second molar can be completely uprighted within eight to 10 weeks after spring placement (Fig. 5).

REFERENCES

1. Aksoy, A. and Aras, S.: Use of nickel titanium coil springs for partially impacted second molars, *J. Clin. Orthod.* 32:479-482, 1998.
2. Lang, R.: A spring for erupting impacted mandibular second bicuspid, *J. Clin. Orthod.* 29:658-659, 1995.
3. Lang, R.: Uprighting partially impacted molars, *J. Clin. Orthod.* 19:646-650, 1985.
4. Majourau, A. and Norton, L.A.: Uprighting impacted second molars with segmented springs, *Am. J. Orthod.* 107:235-238, 1995.
5. Orton, H.S. and Jones, S.P.: Correction of mesially impacted lower second and third molars, *J. Clin. Orthod.* 21:176-181, 1987.
6. Pogrel, M.A.: The surgical uprighting of mandibular second molars, *Am. J. Orthod.* 108:180-183, 1995.
7. Rubin, R.M.: Uprighting impacted molars, *J. Clin. Orthod.* 11:44-46, 1977.
8. Sinha, R.K.; Nanda, R.S.; Ghosh, J.; and Bazakidou, E.: Uprighting fully impacted mandibular second molars, *J. Clin. Orthod.* 29:316-318, 1995.



Fig. 4 A. Two weeks after spring placement. B. Four weeks after spring placement.

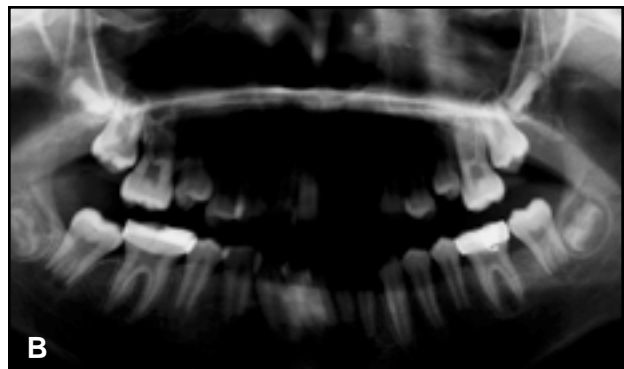


Fig. 5 A. Completely uprighted second molar after eight weeks of spring placement. B. Final radiograph after 10 weeks of treatment. Note filling of angular bone defect shown in Figure 4B.