

Rapid Reactivation of Open Coil Springs: A Novel Approach

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INTRODUCTION

Occasionally, nickel titanium or stainless steel open coil spring length cannot be correctly determined prior to placement intraorally. As a result, there is a need for continuous reactivation of open coil springs during treatment. Previously published methods of open coil spring activation include C-Ring activation,¹ E-Jig Activation,² spreading apart the open coil spring³ or placement of a crimpable stops.⁴

We have devised a fast and simple technique for rapid reactivation of open coil springs using prefabricated self cure acrylic discs. Arch wire removal is not required in this technique and varying levels of reactivation are possible depending upon the clinical situation.

TECHNIQUE

Laboratory step: Mix a small amount of self cure acrylic resin and shape it into a round ball with the fingers during the dough stage. At this time, insert a 19 x 25'' stainless steel wire through the middle of the ball, twist and move it back and forth while gently compressing the ball so that it takes on a disc shape. After complete setting, use a

straight fissure trimmer to cut one side of the disc till the centre in the shape of a slot (Figure 1). Multiple discs can be prepared, cold sterilized and kept ready for clinical use.

Clinical step: Compress the deactivated open coil spring with a ligature tucker, place an acrylic disc directly on the wire as shown in Figure 2. Roll the disc with your fingers so that the prepared slot faces you. Take a small amount of composite fill the slot and light cure it (Figure 3 & Figure 4). You can add more discs if required.

DISCUSSION

Use of open coil springs is a common clinical procedure in Orthodontics. This method is fast and easy as compared to previous techniques. The main advantages are:

1. No archwire removal for reactivation
2. Acrylic discs are esthetic when polished
3. Varying levels of reactivations are possible
4. No food & plaque accumulation due to reduced size
5. No risk of dislodgement of wire components.

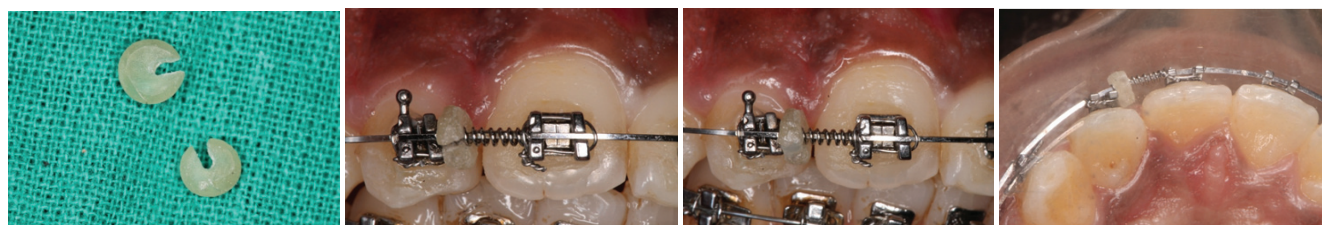


Figure 1: Prepared acrylic discs

Figure 2: Disc on archwire with slot facing operator

Figure 3: Light cured composite filled in slot

Figure 4: Occlusal view of disc

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