

# TECHNIQUE CLINIC

## Closed-Coil Springs for Intrusion Mechanics with Miniscrew Anchorage

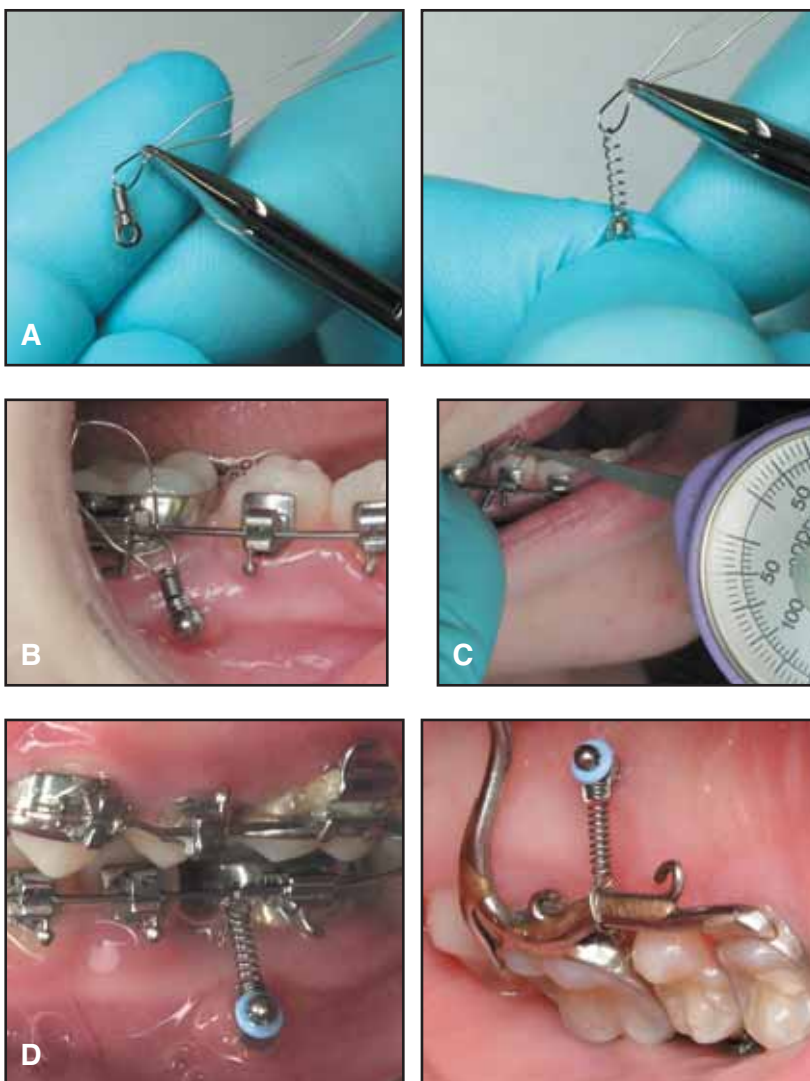
**A** closed-coil spring can be anchored to a miniscrew to apply light force for molar intrusion. Because of the short distance between the two points of force application, it can be difficult to activate the spring sufficiently, especially as the distance spanned by the spring gradually decreases during intrusion.

Most miniscrew manufacturers are now producing closed-coil springs with eyelets sized to fit over the heads of the screws.\* Fitting an eyelet over the head of the miniscrew at the anchorage site makes placement and removal of the spring easier and faster, but it is still challenging to attach the opposite end of the spring to a bracket, an archwire, or an appliance during intrusion mechanics. The following simple procedure can be used to apply forces over short distances using these closed-coil springs.

### Procedure

1. Place the miniscrew at the desired site and height. If the distance from the miniscrew to the point of force application is too short to activate the coil spring, shorten the spring by cutting it with a ligature cutter, and thread an .010" stainless steel ligature through the first two coils (A).

*(continued on next page)*



\*Pictured are Sentalloy nickel titanium springs and OrthoImplant miniscrews. Sentalloy is a registered trademark of GAC International, Inc., 355 Knickerbocker Ave., Bohemia, NY 11716; www.gacintl.com. OrthoImplant is a trademark of Imtec Corporation, Ardmore, OK; www.imtec.com; distributed by 3M Unitek, 2724 S. Peck Road, Monrovia, CA 91016; www.3Munitek.com.

2. Make a loop in the ligature wire, and use it to attach the coil spring to the bracket, archwire, or appliance (B).

3. Adjust the spring length to the desired level of force using a force gauge (C). This is important to do for each spring, because the force level of manufactured springs can vary slightly, and the length of the spring has been altered to attach it to the miniscrew.

4. Complete the attachment of the activated spring (D).

To evaluate the force magnitude at subsequent appointments, simply remove the eyelet from the head of the miniscrew and measure the force with the gauge.

ACKNOWLEDGMENT: This project was partially funded by NIDCR Grant DE017844-01.



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