Direct Bonding of Ortho Flextech Lingual Retainers

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After orthodontic treatment, retention of the mandibular incisors often requires special attention because of their high potential for relapse. Many different removable and fixed retainers have been introduced for this purpose.[1-5]

The present article describes a relatively simple direct method of placing a mandibular 3-3 fixed lingual retainer made of Ortho Flextech* material.

*Trademark of Reliance Corporation, P.O. Box 678, Itasca, IL 60143.

**Great Lakes Orthodontics, Ltd., 199 Fire Tower Drive, Tonawanda, NY 14150.

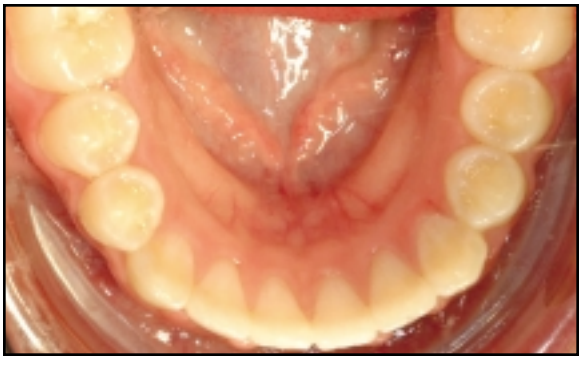

Fig. 1 After lingual surfaces to be bonded are inspected, any raised marginal ridges are reduced and smoothed.

Fig. 2 Nola retractor provides excellent isolation and aids in moisture control.**

Technique

Any raised marginal ridges on the retained tooth surfaces should be reduced and smoothed before bonding (Fig. 1). Isolation and moisture control are critical, as with any bonded attachments; we prefer the Nola retractor** (Fig. 2). The teeth to be bonded are pumiced, etched with a 37% phosphoric acid gel (Fig. 3), rinsed thoroughly, and dried as usual. Several coats of a bonding booster, Enhance,* are applied to the lingual surfaces (Fig. 4) and dried with an uncontaminated stream of warm air from a Nola Warm Air Dryer** (Fig. 5). An unfilled resin sealant is then applied and light-cured (Fig. 6).

Fig. 3 Lingual surfaces etched with 37% phosphoric acid gel.

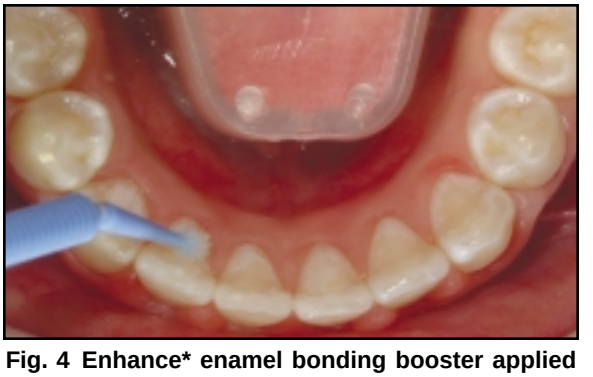

Fig. 4 Enhance* enamel bonding booster applied to lingual surfaces.

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An appropriate length of Ortho Flextech material is cut from the spool (Fig. 7) and adapted to the lingual surfaces of the lower incisors. Ortho Flextech is made of gold with smaller amounts of copper, zinc, and silver and a trace of nickel. The highly polished lingual side is plated with rhodium; the dull tooth side is microetched for better mechanical retention.

A small amount of unfilled resin sealant mixed with filled resin is applied to the lingual surfaces. The Ortho Flextech material is seated and held in place with dental floss for light curing (Fig. 8). Once the retainer wire is secure, additional resin can be applied as needed (Fig. 9).

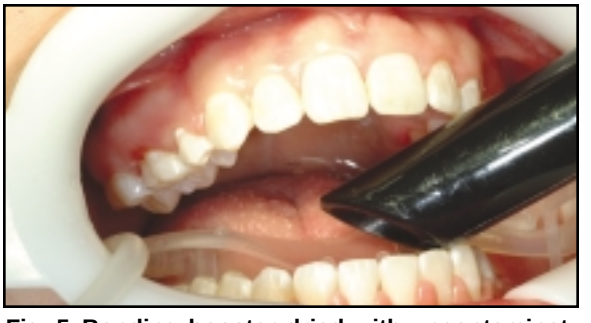

Fig. 5 Bonding booster dried with uncontaminated stream of warm air from Nola dryer.**

Fig. 6 Unfilled resin sealant applied and light-cured.

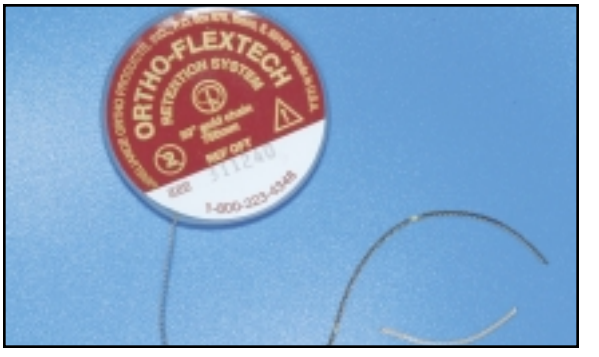

Fig. 7 Ortho Flextech* material supplied in spool.

Fig. 8 Ortho Flextech cut to appropriate length and bonded with small amount of unfilled resin sealant mixed with filled resin; dental floss used to hold retainer in place for bonding.

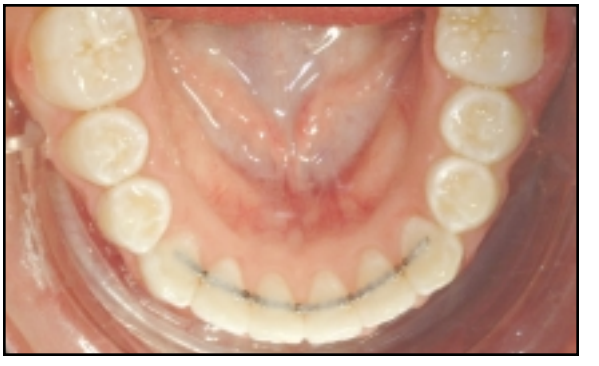

Fig. 9 After composite has set, resin can be added as necessary.

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