

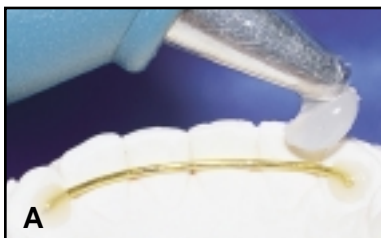
TECHNIQUE CLINIC

Surebonding Indirect Lingual Retainers

Over the years, we have tried both direct and indirect bonding of lingual retainers. We have finally developed a simple and predictable indirect procedure, based on the techniques of White¹ and Sondhi,² that meets our objectives of accurate placement, ease of insertion and clean-up, and durability.

At the last appointment before debonding, the lingual marginal ridges are polished with a slow-speed, rounded diamond wheel, cleaned with pumice, and rinsed. Alginate impressions are taken with the archwires in place. Impressions are poured in stone and allowed to dry for 24 hours.

We use .030" gold wire* for lower retainers and .016" × .022" flattened Bond-A-Braid wire** for either upper or lower retainers. The retainer wires are adapted to the casts, and a thin coat of "liquid foil" separating medium is applied. Transbond XT*** custom pads are formed and then light-cured for 20 seconds, luting the lingual wires to the casts. If the upper incisors



lack well-defined lingual anatomy, the composite pads will need small retention knobs to keep the wire in the custom tray.

A Surebonder DT-200 hot glue gun,† set on high, is used to apply FDA-approved ethylene vinyl acetate over the lingual wire from gingival margin to incisal edge (A). The hot glue is then adapted with a moistened finger to form a custom carrying tray (B). The molten glue should be compressed tightly against the wire and should extend 2mm onto both the labial surfaces of the teeth and the lingual gingiva.

After hardening, which takes only a few seconds, the glue matrix is removed from the cast and trimmed with a scissor to form the custom tray (C). The exposed tissue sides of the cus-

tom pads are scrubbed with a soft-bristle toothbrush and water to remove any residual separating medium, then lightly microetched. The tray is dried, the dental midline is indicated with a permanent marker, and the tray is stored in a sandwich bag.

At the delivery appointment, the tooth surfaces to be bonded are microetched, acid-etched, thoroughly rinsed, and dried. A Microbrush‡ is used to dispense a dot of Sondhi Resin A onto each tooth surface and of Resin B onto each Transbond XT composite pad in the tray. The custom tray is seated on the lingual side and rolled over onto the labial side. Equal pressure is applied to the incisolingual surfaces for one minute (D), and the patient is instructed to close

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***Trademark of 3M Unitek, 2724 S. Peck Road, Monrovia, CA 91016.

†FPC Corporation, 355 Hollow Hill Drive, Wauconda, IL 60084.

‡Microbrush Corporation, 1376 Cheyenne Ave., Grafton, WI 53024.

lightly on a cotton roll for two additional minutes.

The tray is removed with a hinge motion from facial to lingual. Flash is easily cleaned up with a scaler and dental floss. The patient is instructed on cleaning gingival to the wire using floss and a floss threader.

Our bond failure rate has been minimal because of the ease of tray placement and the 30-second setting time. This technique requires minimal chairtime, with the doctor involved only long enough to check for residual adhesive and incisal interference.

REFERENCES

1. White, L.W.: A new and improved indirect bonding technique, *J. Clin. Orthod.* 33:17-23, 1999.
2. Sondhi, A.: Efficient and effective indirect bonding, *Am. J. Orthod.* 115:352-359, 1999.



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