# A Simple Transfer Tray for Bonding Lingual Retainers

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This article describes a simple, cost-effective, and accurate technique for bonding lingual retainers.[1,2]

## Retainer Fabrication

Since the transfer tray is not customized for each individual patient, any post-treatment cast can be used as a template to form a reusable spacer about 2-3mm thick (Fig. 1). The tray is built up over the spacer with self-curing acrylic resin, using the sprinkle or dough technique. It is trimmed to form an anterior labial flange-handle, with occlusal coverage only in the second bicuspid and molar regions (Fig. 2). To add rigidity, a wire can be incorporated in the labial flange.

The fixed retainer of the desired wire dimension is constructed on the patient's post-treatment cast so that it extends at least to the second bicuspids, where it ends in retentive loops that will lock into the impression material. The wire is temporarily bonded to the cast in at

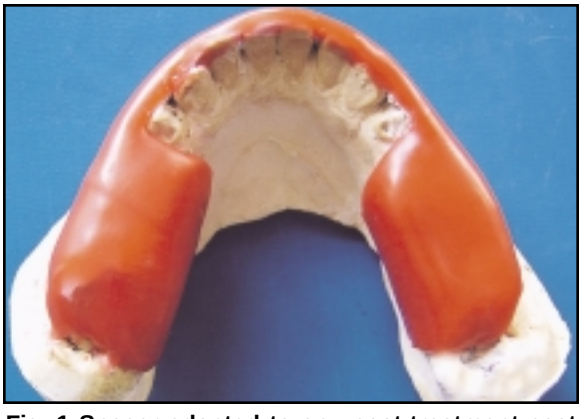

**Fig. 1 Spacer adapted to any post-treatment cast so that transfer tray will fit most patients.**

**Fig. 2 Tray built up with self-curing acrylic and trimmed to form anterior labial flange, with occlusal coverage of second bicuspids and molars.**

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least three places to prevent it from dislodging when the impression is made (Fig. 3).

The tray is loaded with either elastomeric impression material or alginate. The tray is placed over the cast, and excess impression material is cut away with a blade or knife, exposing the wire on the lingual surfaces of the anterior teeth (Fig. 4). The temporary bonds are carefully pried away or sandblasted, and the tray is removed with the retainer wire secured in the impression material.

**Fig. 3 Retainer wire adapted and temporarily bonded to patient's post-treatment cast.**

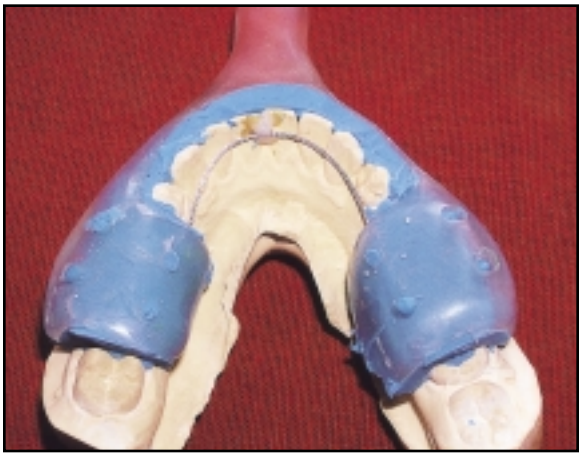

**Fig. 4 Tray loaded with elastomeric impression material and placed over retainer wire on cast.**

## Retainer Placement

The lingual surfaces of the patient's anterior teeth are etched prior to bonding, and the tray is transferred to the mouth (Fig. 5). The bulk of the impression material ensures stability, and the labial flange helps isolate the anterior teeth from the lip. The retainer is bonded with a light-cured adhesive.

After the resin has cured, the retainer wire is cut distal to the first premolar or the canine as desired, using a cutter or a bur. The tray then lifts out easily, and can be reused after proper sterilization. The retainer is finished by removing the excess adhesive from the tooth surfaces (Fig. 6).

## Conclusion

This method of placing a bonded lingual retainer is simple and cost-effective. It also saves considerable chairtime, since the transfer tray is fabricated in the laboratory. The technique ensures that the retainer will be positioned in the mouth exactly as it was on the cast.

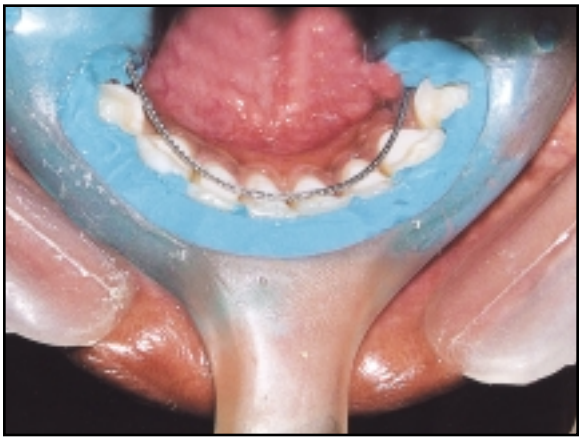

**Fig. 5 Tray with retainer wire transferred to patient's mouth.**

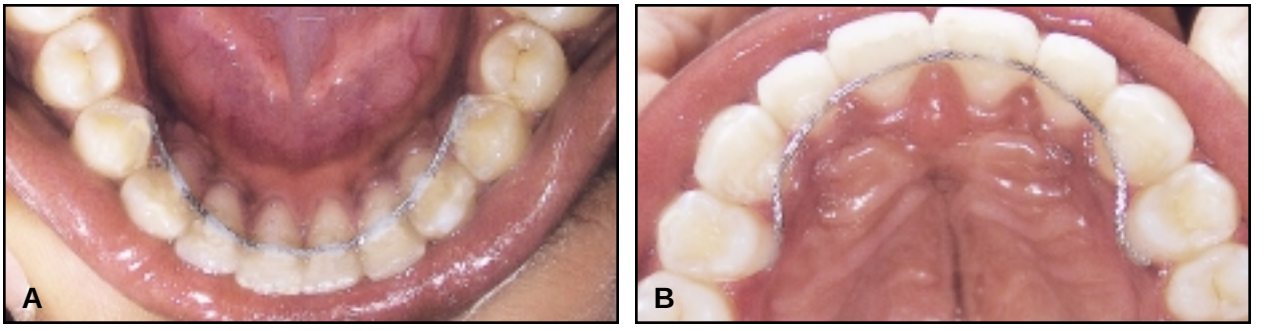


**Fig. 6 A. Finished lower lingual retainer after tray removal. B. Upper lingual retainer bonded using upper tray.**

**REFERENCES**

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