# TECHNIQUE CLINIC

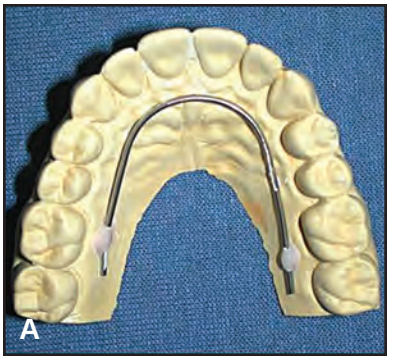
## Transarch Stabilizing Wire for Essix Retainers

Essix removable retainers are gaining popularity among orthodontists, thanks to their ability to encapsulate and retain both posterior and anterior teeth.[1] Because of their minimal thickness and "U"-shaped configuration, however, transarch stability can sometimes be inadequate. Gill and colleagues reported that in cases requiring significant expansion, a rigid Hawley-type retainer was more effective for the maintenance of arch expansion.[2]

We have found a way to substantially improve the transarch stability of an Essix retainer by simply incorporating a stable metal strut into the appliance during thermoforming. The procedure is as follows:

1. Bend a thick round wire (.032" is recommended) into a "U" shape and place it on the lingual surface of the patient's cast, a few millimeters below the cervical line.
2. Build up .5mm mounds of composite under the distal ends of this stabilizing wire, just enough to hold it slightly away from the surface of the cast (A).
3. Thermoform a plastic sheet of the desired type and thickness over the cast. The plastic will completely encapsulate the wire, making it an integral part of the retainer (B).

An added advantage of this technique is the greater range of options for thicknesses and types of plastic that may be chosen for a retainer, since a thinner plastic can be used when a stabilizing wire is incorporated.






**REFERENCES**

1. Sheridan, J.J.; LeDoux, W.; and McMinn, R.: Essix retainers: Fabrication and supervision for permanent retention, J. Clin. Orthod. 27:37-45, 1993.
2. Gill, D.; Naini, F.; Jones, A.; and Tredwin, C.: Part-time versus full-time retainer wear following fixed appliance therapy: A randomized prospective controlled trial, World J. Orthod. 6:300-306, 2007.



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