We have successfully used a sectioned Essix* appliance to close a relapsed maxillary midline diastema in an adult patient. The procedure is as follows:

1. Fabricate an upper canine-to-canine Essix tray (type ACE) as usual. Section the tray at the mesial third of each central incisor to create separate left and right trays. Round off the mesial edges for patient comfort.

2. Using a scalpel, create arrow-shaped attachment points for an elastic (1/8", 4oz) in the lateral incisor regions. In Figure A, the green boxes indicate the outline of the Essix trays, the red arrows show the location and orientation of the attachment points, and the blue box represents the elastic. The finished appliance is fairly inconspicuous (B).

3. Ask the patient to wear the trays with the elastic as close to full-time as possible.

4. Perform interproximal re-reduction if required by the tooth morphology, crown tip, gingival contour, or attachment level. In the patient shown here, stripping was performed on the mesial-occlusal third of the central incisors after four weeks of treatment (C) to eliminate a midline black triangle.

In this case, after closure of the diastema (D), a bonded 2-2 retainer (.0175" Wildcat** twist-wire) was placed to prevent relapse. Total treatment time was 10 weeks. Our patient lost his Essix trays halfway through treatment; otherwise, a single set of trays would probably have been adequate for the entire procedure. Interproximal contacts distal to the upper canines opened slightly, but tightened spontaneously during retention. A wraparound retainer may be worn at night to close such spaces if necessary.

To avoid excessive crown tipping, we do not recommend using this technique in a patient with a midline diastema wider than 2mm.

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