

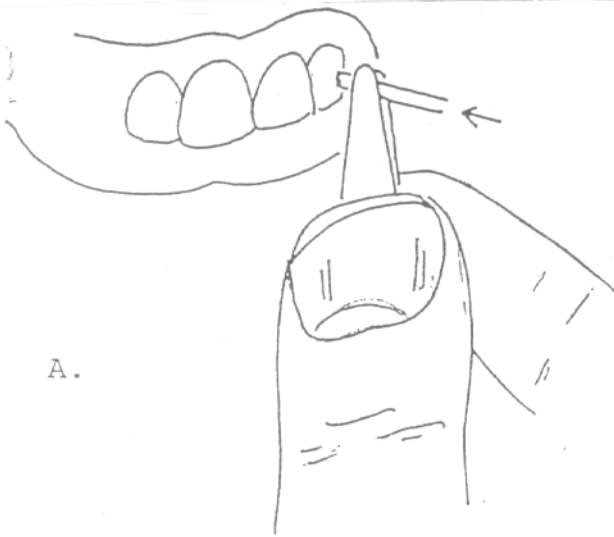
Labio - Lingual Wires - When and How to Use Them

Labio-lingual wires are used to close diastemas of up to about 3 mm. severity; shift the upper or lower midline to the opposite side up to 5 mm.; distally position a bicuspid into an excessive deciduous molar space; open up space for an erupting canine; close multiple spaces between upper or lower incisors; or to increase the retention of the appliance in either the upper or lower arch. Closing diastemas and shifting midlines, however, are the most frequent use of these wires.

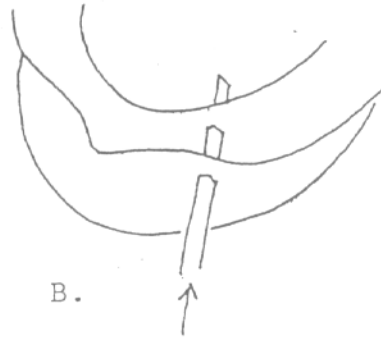
Usually green-tipped Elgiloy wire (available through Ortho-Tain®) of .020. inch diameter is used (or any springy .020 inch diameter 24 gauge, or 0.51 mm. arch-wire material). The plastic Nite-Guide®, “G” series, or Ortho-Tain® positioner is placed in the mouth. The wire is held with a #139 (bird beak) or #130 (long nose) plier about 4 mm. from the end and is pushed through the plastic in the correct position, as gingivally as possible, and about 1 to 2 mm. mesial of the distal surface of the tooth. It is pushed (cold, not hot) through the plastic until it touches the labial of the tooth’s surface (see illustration). The appliance is removed from the mouth and the wire is then pushed through the lingual of the appliance leaving about 1 mm. of plastic above the wire to secure it on the lingual (see illustration).

The lingual end of the wire sticking out of the plastic is bent on itself like a fish-hook and then is pulled on the labial to let the hook grab and be secured into the plastic on the lingual (see illustration). The wire is then cut on the labial with about 2 mm. excess sticking out. It is then bent on itself again like a fish-hook and the bent portion of the wire is inserted into the labial flange of the appliance by pushing the appliance margin forward into the wire (see illustration). The appliance is then reinserted into the mouth and the same procedure is repeated on the other side. If it is desirable to close the space equally from both sides, the left and right wires are placed mesially the same distance from the distal surface of both teeth only from one side and not at all from the other, the wire is inserted mesially from the distal surface twice the normal amount only on the side that requires movement.

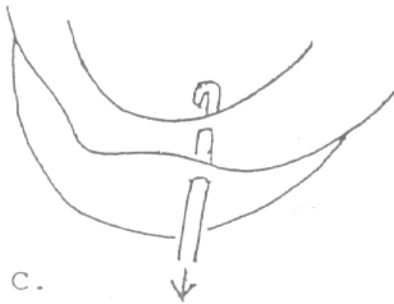
Once the movement is completed, the wires (or wire) can be removed and reinserted to the mesial another 1 to 2 mm. to obtain further movement. Once the intended closure is finished, the wires are usually left in place for several months. If a diastema has been closed (e.g. between the upper centrals), the space created distal to the laterals can be closed by bonding additional tooth mass to the lateral. If after doing this bonding, a slight space opens between the centrals, slight bonding can be added to the mesial of these two teeth to give a permanent esthetic result.



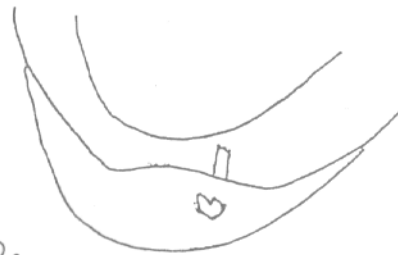
A.



B.



C.



D.

A. Use a #130 needle nose plier (or #139) and push a 0.200" diameter wire through

appliance in mouth as gingivally as possible slightly short of distal surface.

B. Push wire through lingual plastic (appliance out of mouth).

C. Make a hook on lingual side of wire and pull it into plastic.

D. Make a similar hook on labial and push labial plastic into hook to secure wire.

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