

CLINICAL AIDS

Elastic distortion

The accompanying intraoral photographs are presented because they have had a *profound influence* on the contributor's practice. When intermaxillary elastics are used in any orthodontic technique, it is usual for them to be worn (a) all the time, (b) applying the force or 'stimulation' in the correct direction and (c) in a light or gentle manner to minimise untoward extrusion of the molars and usually the upper anteriors. This axiom usually is taken for granted until a specific case reinforces the point in one's mind.

This female patient was asked how long her elastics were lasting, being an insidious question to lead up to a determination of the constancy of elastic wearing. She admitted that she needed to replace them frequently because she had acquired a habit of cutting the elastics on the 'inside hook'. She pointed to the lingual cleat on the premolar. She was asked to demonstrate this manoeuvre which was done with expert aplomb. She was then asked to repeat the procedure in steps for the photographs.

Apart from cutting the elastics by engaging the lingual cleat, aided by opening the mouth to break them, the photographs show how the force direction is totally changed by this habit. One could postulate quite reasonably that this and similar deviant habits would make the teeth sore and would tend to discourage elastic wear. It could also explain the lingual inclination of the lower first molar and the upper cuspid in these photographs.

Following this incident, other patients whose treatment had been progressing slowly, or whose occlusal planes had tipped up on one side, were asked about such habits. The incidence is remarkably high. But an interesting observation is that the patients will readily admit it. This admission compares more favourably than with those situations where confrontations are necessary with the parents about lack of constant elastic wearing.

As a *corollary* to these findings, other habits may be elicited by showing these photographs to patients with treatment progress problems. For example, one lass who exhibited a worsening of the overjet by measurement and apparent backward mandibular rotation clinically, said that since being shown the photographs, she became aware of a forward posturing tongue habit which was present when she awoke. Whatever the explanation, the overjet had reduced at the next visit!

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As an aside, the archform on the patient's left side is a Merrick archform. A Merrick arch proceeds low down along the mucosa distal to the cuspids, but compared to the utility arch, it enters the molar tubes from the distal end and thus comes forward into the tubes with a 'tip up' segment. It may be considered by the Begg clinician as a temporary measure for those recidivists who continually distort or break the lower archwire. Unilateral Merrick arches as shown in these photographs are not recommended since, although not evident here, they invariably produce a midline discrepancy with time.

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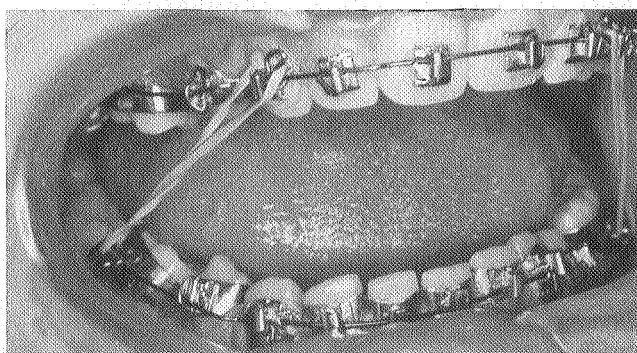


Figure 1. The first step in this deviant habit is the opening of the mouth.

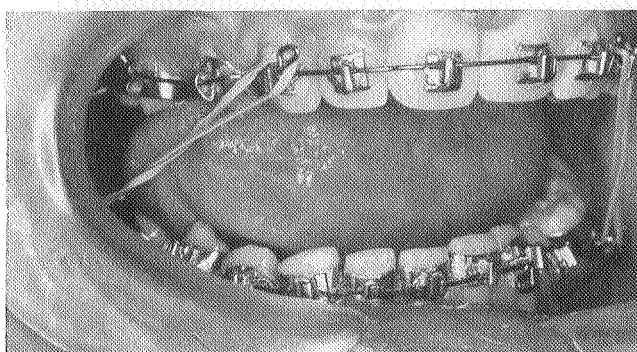


Figure 2. The tongue can be seen to move towards the elastic on the right side.

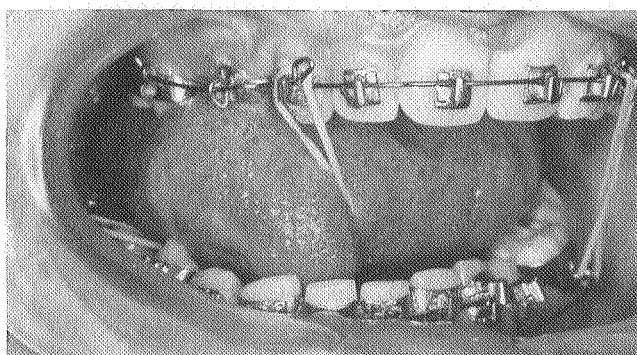


Figure 3. The elastic has been caught by the tongue and deflected lingually.

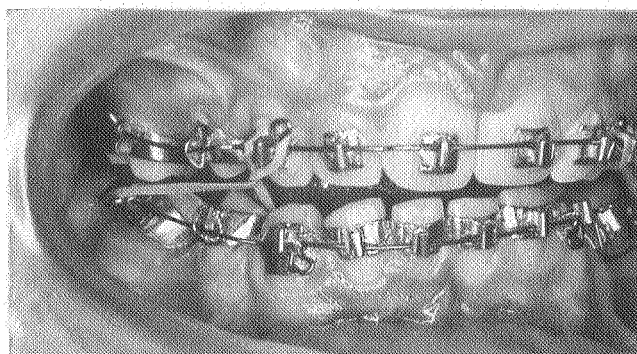


Figure 4. The elastic has been placed on the lingual cleat on the lower first premolar.