Abstracts and Reviews

"The influence of playing musical wind instruments on oral tissues." Ho-Ching Ma, D.D.S. and Jose M. Laracuente, D.D.S. *General Dentistry,* January-February 1979, pp. 46-51.

"The position of a tooth changes when prolonged forces are applied, as a result of resorption and deposition of bone and fibrillar reorientation within the periodontal ligament. In order to maintain a tooth in the proper position, there should be a harmonious balance of pressure. Playing musical wind instruments introduces a set of pressures and forces that may affect the teeth, the jaws, and the perioral muscles. Engleman showed that about 500 grams of lip pressure is required to play middle C on the trumpet. Since less than 100 grams of pressure are necessary to move a tooth orthodontically, the playing of musical wind instruments has both the potential for beneficial effect in correcting malocclusion or harmful effect to the musician's dentition. Therefore the relation between the various musical instruments and regular, properly guided practice exercise and the prevention or correction of malocclusion is important."

The authors classify wind instruments according to the type of mouthpiece and provide information on the role of the lips, tongue, teeth, and mandible for each classification. For those of us with limited background and knowledge of musical instruments, the authors' explanation of the different types of mouthpieces should be useful and helpful information.

The authors discuss the indications and contraindications for playing each type of wind instrument relative to Class I, II, and III malocclusions. Suggestions are given for choosing an appropriate instrument for patients with anterior open-bite, weak lips, and other dental and orofacial anomalies. Likewise, the authors point out disadvantages such as the selection of a single-reed instrument for patients with overjet.

"The proper selection of an instrument can be valuable in muscle-control therapy by exerting beneficial influence on orofacial tissues. Lack of awareness of any contraindications may result in deleterious effects and limited progress in playing an instrument. The necessity for professional dental consultation, especially by an orthodontist, before starting musical study is obvious. A thorough examination should include radiographs and study models as diagnostic aids. Attention should be given to occlusion, morphology, position, and alignment of all the teeth. In addition, the texture, form, and maneuverability of the lips should be evaluated carefully. In conclusion, Hruby and Kessler found that the playing of musical wind instruments alone cannot correct malocclusion, nor can it substitute for orthodontic treatment."

In my own practice, questions often arise regarding the relationship between malocclusion and musical instruments. I have felt inadequate in discussing these matters with parents and colleagues in the dental profession because of my ignorance of musical instruments and the insufficient research which has been published to date. I feel that this article and the references at the end of the article provide us with the kind of information we need. That leaves us with only the frustration that by the time patients are referred to us, the parents have already invested several years and several thousand dollars in music lessons, band uniforms, clarinets or bassoons. Perhaps we could share this information with the music teachers and band directors at the elementary and middle school levels.

Reviewed by
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