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Evaluation of horizontal and vertical differences in facial profiles by orthodontists and lay people

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ABSTRACT

A novel video image processing technique was used to evaluate changes in the facial profile mimicking the effects of various orthognathic surgical techniques. Incremental changes were introduced in male and female images simulating the effects of mandibular advancement or set-back, maxillary advancement or set-back, and maxillary impaction. Twenty-two clinicians and 22 lay people completed questionnaires evaluating their level of sensitivity to changes in the facial profiles and their preferences regarding alternative profiles. The results indicate that in judging realistic color video images, both orthodontists and lay people are sensitive to relatively small horizontal changes in the facial profile. In contrast, orthodontists are less sensitive to relatively large vertical changes but more sensitive to horizontal mandibular changes.

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