

[\[Print Version\]](#)

[\[PubMed Citation\]](#) [\[Related Articles in PubMed\]](#)

*The Angle Orthodontist*: Vol. 65, No. 1, pp. 49–62.

## Class II malocclusion: mandibular retrusion or maxillary protrusion?

Robert E. Rosenblum, DMD, MS<sup>a</sup>

<sup>a</sup>670 Mendon Road, Pittsford, NY 14534-9773

### ABSTRACT

This study was undertaken to evaluate whether the majority of Class II skeletal patterns are mandibular retrusive or maxillary protrusive and also to compare four maxillary sagittal cephalometric indicators and four mandibular sagittal cephalometric indicators in a skeletal Class II sample. The Fishman SMA method was used to stratify the subjects into 11 maturity levels. Computerized cephalometric programs selected the subjects and compared the different indicators for each subject. The results indicate a wide diversity in the evaluation of maxillary protrusion and mandibular retrusion in these subjects. The Downs facial angle indicated that only 27.0% of the sample had mandibular retrusion. The angle NA-FH indicates that 56.3% of the sample had maxillary protrusion. These findings are in marked contrast to those evaluated by some of the other indicators.

Preliminary data from this study was presented at a combined meeting of the Orthodontic Society of the Cote D'Azur and the North Atlantic Component of the E.H. Angle Society of Orthodontists, Nice, France, October 1990 and at the annual meeting of the North Atlantic Component of the E.H. Angle Society of Orthodontists, Philadelphia, April 1991.

R.E. Rosenblum, Assistant Professor, Orthodontic Department, Eastman Dental Center, Rochester, NY

**KEY WORDS:** Malocclusion, Computerized cephalometrics, Sagittal indicators, Comparative analysis.