

## CLASS II DIV 2 — MATURE PATIENTS

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Class II Div 2 malocclusions are characterized by extreme hypertonicity of the lips and a lower lip line completely above the dentition. (Fig 1). These features are responsible for the usual treatment problems in controlling the anterior vertical dimension when first bicuspid are extracted. During the growing period, Class II Div 2 malocclusions are best treated with a conservative non-extraction approach. (Grave and Brown, 1976. 1979).



Fig. 1. Lower lip line above dentition.

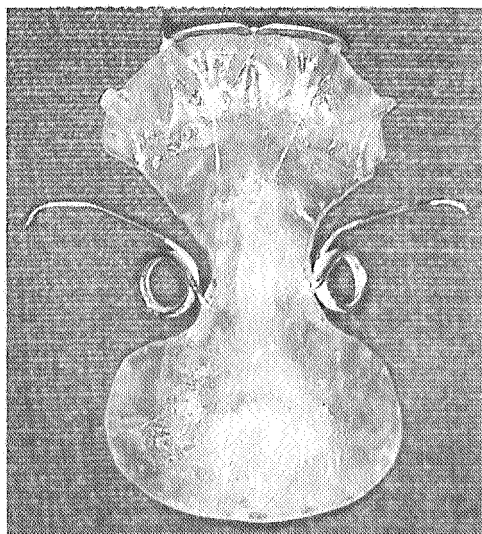


Fig. 2. Preliminary removable appliance.

This paper will describe a clinical method in the treatment of Class II Div 2 malocclusions in patients who are nearing the terminal stage of growth. The treatment plan involves the extraction of upper first molars and lower third molars, a preliminary removable appliance (Fig 2) and follow up fixed appliance therapy. Two case histories are presented to illustrate how the extraction of upper first molars provides a simple approach to the vertical dimension problems of this type of malocclusion.

### Case 1

Patient S.W. was a boy aged 15 years when first examined in 1974. The facial photographs reveal a competent lip structure and a dished-in profile. The initial lateral head radiograph shows a very severe Class II Div 2 skeletal pattern (Fig 3A). The intraoral photographs reveal an extremely deep overbite with lower second bicuspid partially blocked lingually. (Fig 3B). The treatment plan involves the extraction of the upper first molars. Three weeks later, an upper removable appliance was inserted to retract bicuspid and assist with overbite correction. (Fig 3C). This phase lasted approximately four months and fixed appliance therapy followed. Facial appearance and dental relationships after debanding are shown in Fig 3D and 3E. The occlusal view of the upper arch shows upper third molars have emerged. Lower third molars are often extracted shortly after debanding.

### Case 2

Patient K.S. was a boy of 16 years when first examined in 1974. The good facial appearance is shown in the facial photograph, however, the lateral head radiograph reveals a very severe Class II Div 2 skeletal pattern. (Fig 4A). The pretreatment dental relationships illustrate the severity of the malocclusion. (Fig 4B). The treatment plan involved the extraction of upper first molars, a preliminary upper bicuspid retraction appliance and a follow-up fixed appliance phase. Facial appearance and dental relationships after debanding are shown in Fig 4C and 4D. The upper third molars have erupted and lower third molars were extracted after the occlusion had settled.

### Summary

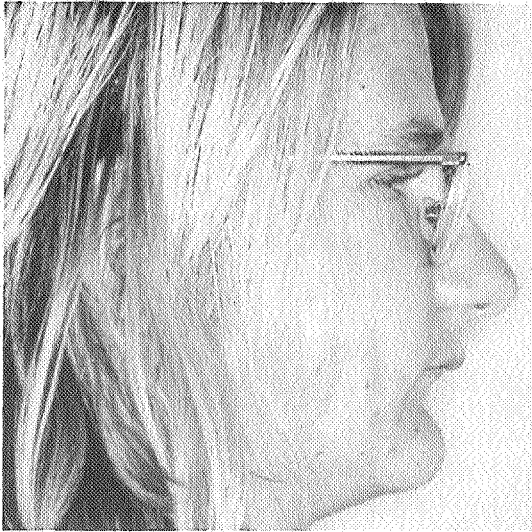
Most orthodontists would agree that the treatment of Class II Div 2 malocclusions is best handled with a non-extraction approach during the period of active growth. However, in patients who are approaching maturity, an extraction approach becomes necessary. A treatment method that involves the extraction of upper first molars and a preliminary removable appliance reduces the difficulties of overbite correction and simplifies the fixed appliance phase. The overall treatment time with this approach is approximately eighteen months.

### References

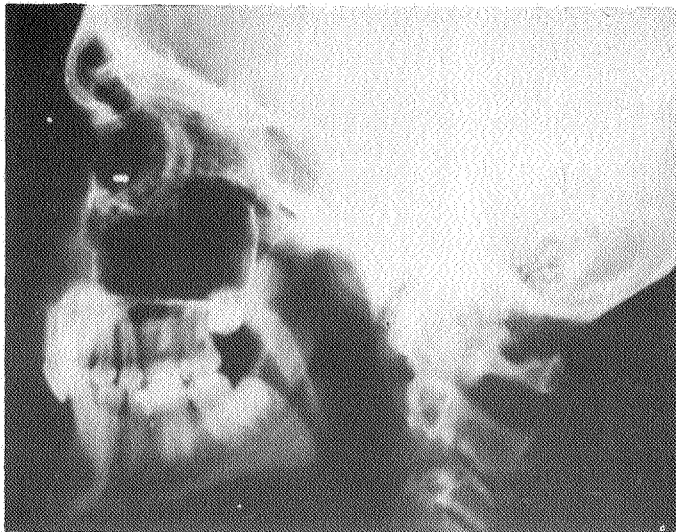
- Grave K C and Brown T (1976) : Skeletal ossification and the adolescent growth spurt. *Amer J Orthodont.* 69 : 611-619.  
Grave K C and Brown T (1979) : Carpal radiographs in orthodontic treatment. *Amer J Orthodont.* 75 : 27-45.

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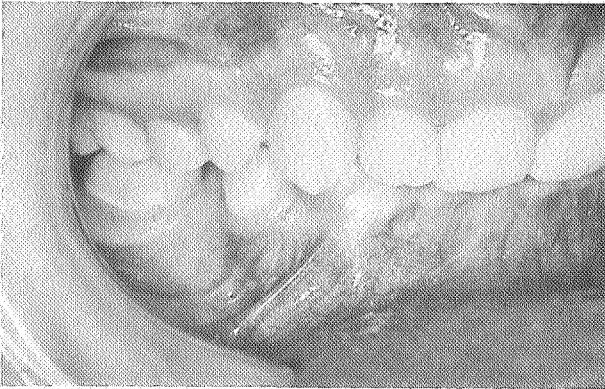
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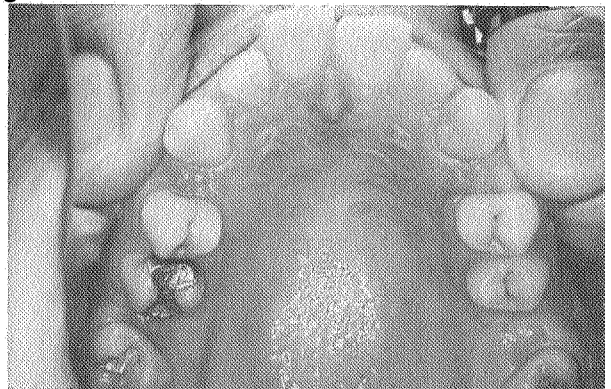
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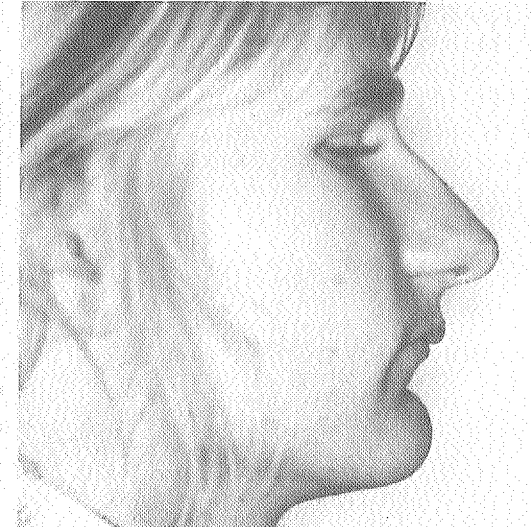
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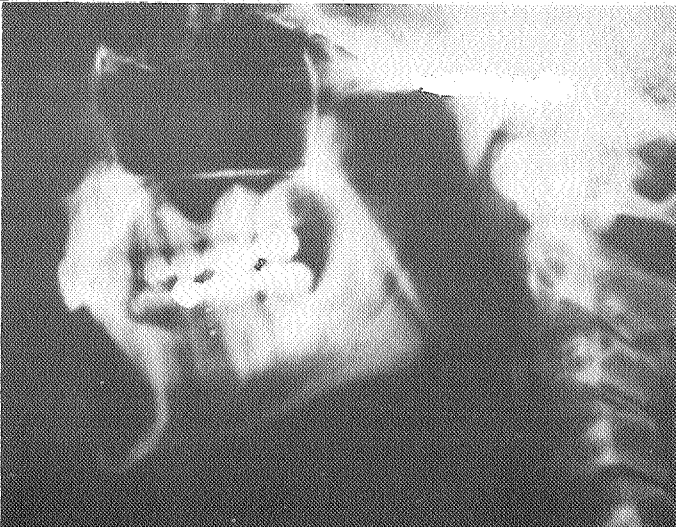
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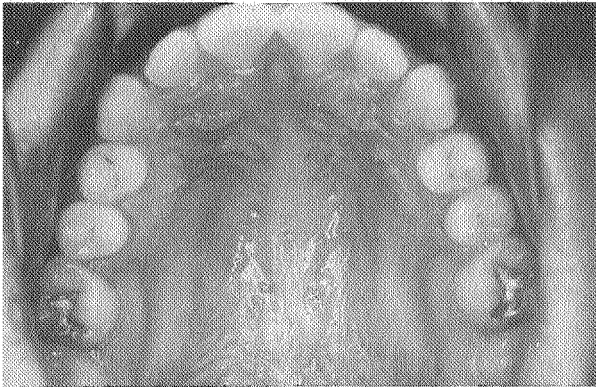
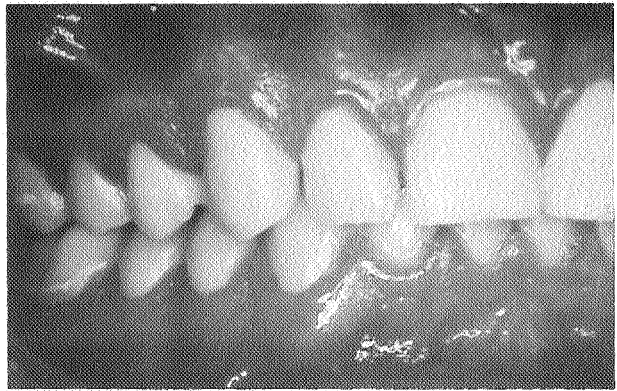


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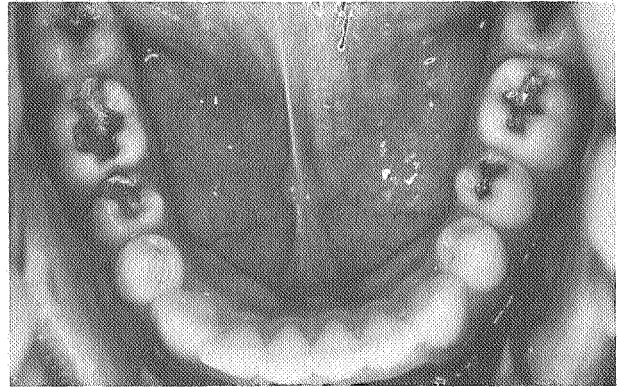
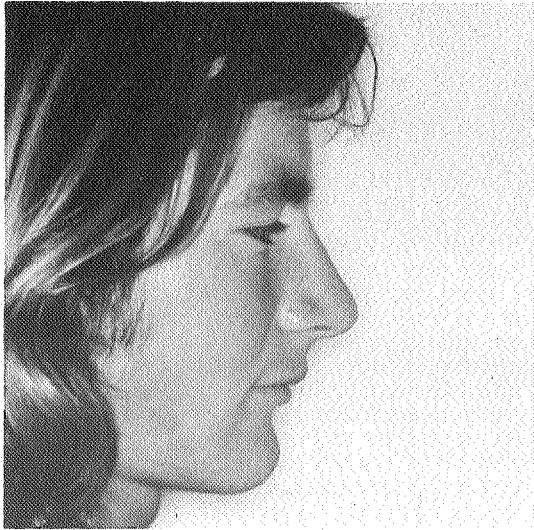
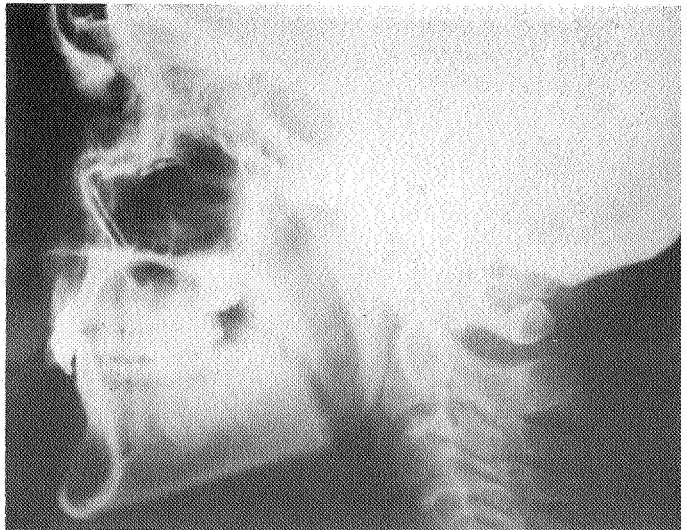


**Fig. 3.** Case 1 (S.W.) showing pre-treatment and post-treatment records.

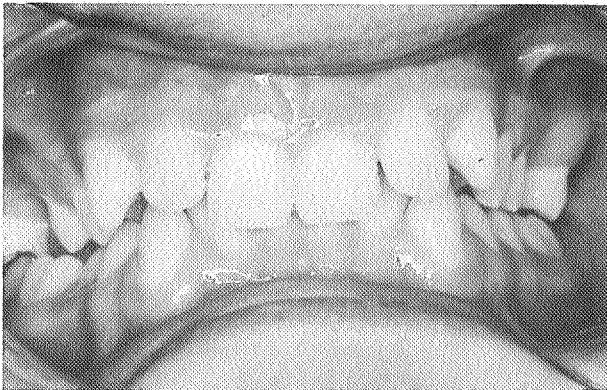
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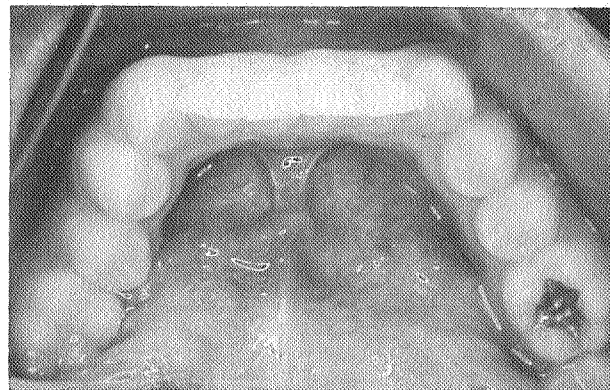
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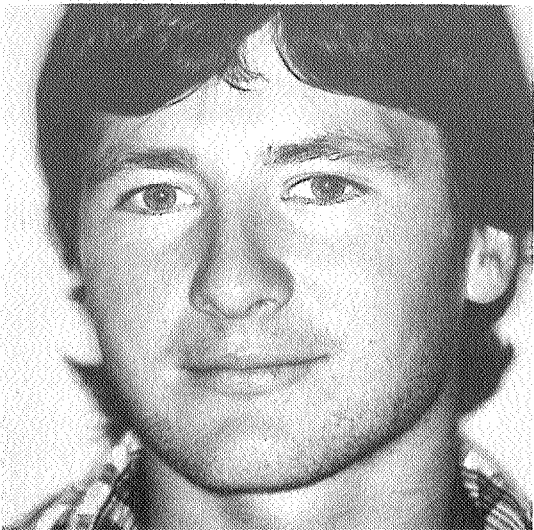
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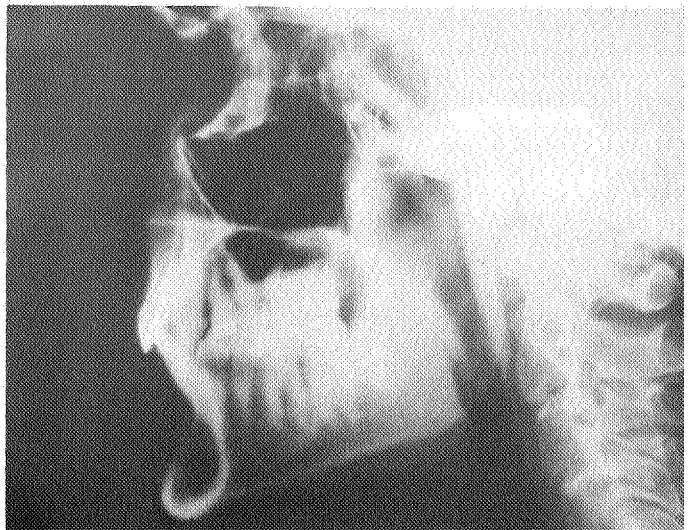
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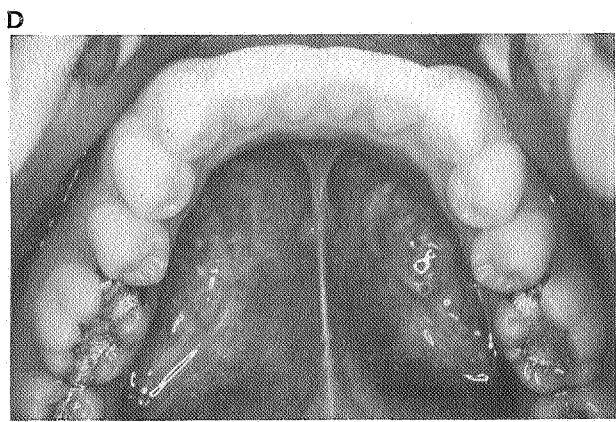
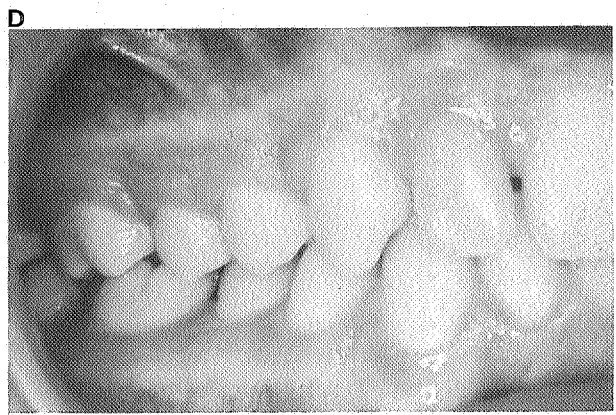
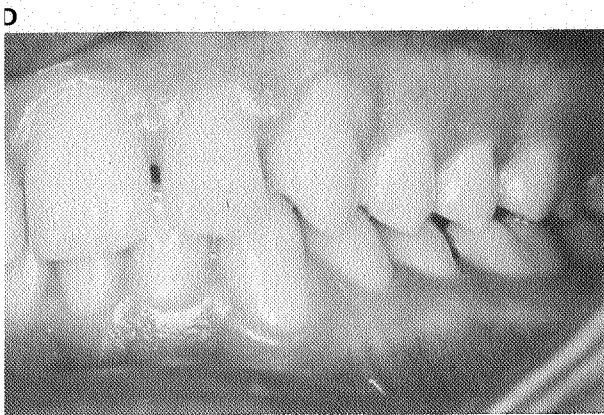


**Fig. 4.** Case 2 (K.S.) showing pre-treatment and post-treatment records.