

## CASE REPORT

### Improving Occlusion and Function with Acrylic Splint Herbst: A Case Report

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**Running title** – Acrylic splint Herbst

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#### **Abstract**

The Herbst appliance, introduced by Emil Herbst, reintroduced by Pancherz, a widely recognized orthodontic treatment modality, has shown remarkable success in correcting Class II malocclusions and improving mandibular growth in growing patients. This case report presents the application and outcomes of an acrylic splint Herbst appliance in a 16-year-old male patient with a skeletal Class II malocclusion and mandibular retrusion.

The patient presented with a convex facial profile, increased overjet, and a reduced mandibular plane angle. The treatment plan involved the use of an acrylic splint Herbst appliance introduced by J A McNamara, designed to facilitate the advancement of the mandible and promote favorable growth. The treatment duration of acrylic splint Herbst appliance (Phase I) spanned 7 months, with monthly follow-up appointments to monitor progress. Following treatment, significant improvements were observed in both the patient's facial profile and occlusal relationship. The overjet was reduced, and the mandible showed significant advancement. Cephalometric analysis revealed a positive change in the sagittal and vertical dimensions. This was followed by fixed orthodontic appliance therapy (Phase II)

The case report demonstrates the successful application of the acrylic splint Herbst appliance as an effective and well-tolerated treatment option for correcting Class II malocclusions and stimulating mandibular growth in growing patients.

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