

A Summary of “Dentofacial Changes after Orthodontic Intervention with Eruption Guidance Appliance in the Early Mixed Dentition”;

Keski-Nisula, K. Keski-Nisula, L., Salo, H., Volpio, K. & Varrela, J., Angle Orthodontist, 78: 324-331, 2008.

A study of the Nite-Guide® technique from 5 to 8½ years of age. Mean treatment time 3.3 years.

Sample size: Treatment sample = 115 (62 males, 53 females)

Control sample = 104 (52 males, 52 females)

(No statistical differences between groups at 5.1 years of age).

Appliances worn only passively while sleeping. 69% wore appliances to completion.

No charges made to patients for treatment.

Appointments: every 3 months at 5 to 10 min. each; every 6 months during retention.

All results at 8.4 yrs. significant $P < .001$: unless indicated by N.S.= not significant.

| | | 5.1 yrs | 8.4 yrs | change | |
|---|-----------|---------|---------|--------|--------|
| Mandibular length (condyilion-gnathion mm) | treatment | 96.9 | 108.0 | +11.1 | +54.2% |
| | control | 98.2 | 105.4 | + 7.2 | |
| Overbite (mm) | treatment | 3.2 | 2.0 | - 1.2 | |
| | control | 3.3 | 4.1 | + 0.8 | |
| Overjet (mm) | treatment | 3.0 | 1.9 | - 1.1 | |
| | control | 2.9 | 4.1 | + 1.2 | |
| Wits Analysis (mm) | treatment | 0.5 | - 1.9 | - 2.4 | |
| | control | 0.1 | - 0.6 | - 0.7 | |
| Maxillary Length PNS-A (mm) | treatment | 43.8 | 46.1 | N.S. | |
| | control | 44.5 | 45.9 | | |
| Lower Face Height Me-ANS (mm) | treatment | 56.0 | 61.2 | N.S. | |
| | control | 57.0 | 60.4 | | |
| Lower Incisor to Mand. Plane (°) | treatment | -- | 97.0° | N.S. | |
| | control | -- | 94.0° | | |
| Class II Canine Relation (mm) | treatment | 1.6 | 0.1 | -1.5 | |
| | control | 1.7 | 1.4 | -0.3 | |
| Class II Molar Relation (mm) | treatment | 0.6 | -1.3 | -1.9 | |
| | control | 0.5 | 0.4 | -0.1 | |

Conclusions: The length of the mandible increased greater in the treatment group by 3.9mm as compared to the control sample over a 3-year period with passive wear of the appliance only while sleeping. The overbite and overjet also had a significant decrease compared to the control sample while there were no differences in the maxillary height or length when compared to the control group.