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## Anterior Tooth Relationship in Cuspid Protected and Group Function Occlusion

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**OBJECTIVE OF INVESTIGATION:** The aim of the study was to determine anterior tooth relationship (overbite and overjet) according to the type of occlusion (canine guided, group function).

**METHODS:** A total of 111 test subjects (56 men and 55 women, mean 23.9 years of age) were examined, and it was determined that they have occlusal conception. The relationship of the front teeth in the position of maximum intercuspitation was evaluated by a portable meter.

**RESULTS:** By analysing the obtained results of vertical overjet and horizontal overbite of the front teeth, we concluded that there was significant statistical difference in the amount of the vertical overjet with regard to occlusal conception ( $t=6.669$ ,  $p=0.00001$ ). Average value of the vertical overjet in examinees with occlusion lead by the canine was  $2.22\pm 0.09$  mm, while in examinees with group function it was  $1.58\pm 0.26$  mm. No significant statistical difference was found by analysing vertical overjet with regard to gender. No significant statistical difference between the groups was found by comparing the results of horizontal overbite of frontal teeth with regard to occlusal conception and gender. Average value of horizontal overjet was  $1.62\pm 0.29$  mm.

**CONCLUSION:** Subjects with canine guided occlusion have significantly and statistically bigger overjet of frontal teeth.

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## Condylar Displacement in Patients with Compound TMJ Disc Displacement in the Frontal Plane on Tomograms

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Condylar displacement on TMJ tomograms taken in the intercuspital position in the frontal plane is a phenomenon described in the literature. However, there is no research on the reason for these disturbances. Introducing MR imaging for TMJ investigation has created new possibilities to explain this phenomenon. 34 TMJ tomograms were taken in 17 patients with TMJ disc displacement in the frontal plane. In 17 (50%) TMJs lateral and in 17 (50%) TMJs medial disc displacement on the basis of MR imaging was diagnosed. The tomograms facilitated diagnosis of lateral displacement of the condyles in 15 (44%) TMJs, medial displacement in 3 (9%) TMJs and in the remaining 16 (47%) TMJs superior central condylar displacement.

### CONCLUSIONS:

1. The study indicates that there is a correlation between TMJ disc and condylar displacement in the intercuspital position in the frontal plane.
2. Further investigations on the presented problem are recommended.

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## Evaluation of the Occlusal Conditions in Patients with and without Dysfunction of the Masticatory Apparatus

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The aim of the study was to ascertain whether there is any correlation between occlusal abnormalities with dysfunction of the masticatory apparatus. (DMA) 137 young people between 16-19 years of age were examined, including 57 with DMA and 80 without DMA. The diagnosis was established with the agreement of the International Headache Society (IHS) criteria and directories of the American Academy of Orofacial Pain. (AAOP). The occlusal conditions were evaluated with the help of the computer aided system T-Scan II (Tekscan, Inc, Boston, USA). According to this method occlusal point contacts (premature contacts) were evaluated at the beginning of the occlusion (centric relation-CR). At this time percentage distribution of the relative net force between teeth were determined. Teeth contacts with the maximum rel-