

Influence of laterotrusive occlusal scheme on bilateral masseter EMG activity during clenching and grinding

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This study was designed to determine the effect of the occlusal scheme on masseter EMG activity at different jaw posture tasks. The sample included 30 healthy subjects with natural dentition and bilateral molar support, 15 with bilateral canine guidance, and 15 with bilateral group function. An inclusion criterion was that subjects had to be free of signs and symptoms of any dysfunction of the masticatory system. Bipolar surface electrodes were located on the left and right masseter muscles. EMG activity was recorded during the following jaw posture tasks: A. maximal clenching in the intercuspal position; B. grinding from intercuspal position to edge-to-edge lateral contact position; C. maximal clenching in the edge-to-edge lateral contact position; D. grinding from edge-to-edge lateral contact position to intercuspal position. EMG activity in tasks B, C, and D was lower than in task A (mixed model with unstructured covariance matrix). EMG activity was not significantly different with