

## **The Correlation Between Dental Occlusion and Posture Evaluated by Means of Tetra-ataxiometry**

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The vestibular system has to stabilize the head both in static and in dynamic conditions. Stabilization of the head is mainly due to the activation of the vestibulo-collic reflexes also in static conditions when head is continuously de-stabilized by breathing, swallowing, and biting. Head stabilization is necessary to give to the central nervous system a gravitation reference platform and a stable visual horizon. Information regarding head position, body position, gravity, visual landmarks and movement of the jaw, the tongue, and the pharynx are integrated in the reticular formation of the brainstem.

This integration supports the correlation between postural control and occlusion: a modification of dental occlusion may induce asymmetrical tongue and jaw movements and in this way asymmetrical control of the neck. Asymmetrical control of the neck tonic muscles may lead to asymmetrical whole body control.

The aims of the paper are:

- To evaluate if a postural modification may be recorded after modification of the occlusion
- To standardize a pattern of evaluation of occlusion/posture interference
- To evaluate if occlusion treatment may modify postural fitness