Temporomandibular joint and occlusion
—New concepts of occlusion—

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This topic is from the scientific point of view very often subject of emotional and controversial discussions. This concerns more and more all disciplines in dentistry.

Principles and concepts of occlusion should be indispensable basic knowledge in dental training. But the interrelations from the point of view of the mandibular movements are very often neglected.

The knowledge about the interrelations of the mandibular movements were already in the 19 century formulated in ‘laws’ of articulation. Edward H. Angle at the same time tried to find a definition for eugnathia and dysgnathia, with his efforts he provided orthodontics call static occlusal relation. Bonwill tried to replace the word occlusion with the dynamic expression articulation, as he realised, that the dynamic functions determine the interrelations between temporomandibular joint and dentition.

In the masticatory organ’s ontogenesis dominate teeth coming through the development of the joint structures in so-called function periods. Nature’s goal is independent from the principle of intercuspation to achieve optimal function. In case of a malocclusion the development of the temporomandibular joint is based on this situation, that means malocclusion is determining the temporomandibular structure.

An early diagnosis of dysgnathia will be of great importance for adolescents. During the maturation period of occlusal relations the defined dependency comes into being between occlusion position and joint position. This is very important for the definite final positioning in treatment and has to be adopted in diagnosis.

In many cases, also the functional joint condition has to be registered and taken into consideration, too. The knowledge about occlusion and temporomandibular joint and it’s interaction are indispensable prerequisites for successful and stable treatment results in modern dentistry.

If there are pathological joint functions present, it has to be considered as an important finding in treatment of craniomandibular disturbances.