



## Contemporary aspects in the diagnosis and treatment of pathological changes in tmj due to trauma from occlusion

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### Abstract

**Introduction:** Pathological changes in Temporo mandibular joints (TMJ) due to Trauma from Occlusion cause various symptoms of pain, difficulty opening of the mouth, deviations of the mandible, subluxation and luxation, etc. Trauma from disturbed Occlusion leads to a functional deficiency of TMJ, which is accompanied with Neuromuscular and Somatosensory pathology. Electromagnetic energy of laser light has some typical properties which allow abilities to control the severe and chronic disorders in TMJ.

**Goal:** The present presentation aims to introduce new algorithms for diagnosing complications after Trauma from Occlusion and their impact on the function of TMJ. The aim of this original biomedical, translational and clinical study was to analyses the real effect of combined therapeutic program in depth and basing on clinical observations to suggest new approach guaranteeing high therapeutic efficacy of TMJ Turbulence laser therapy.

**Material and methods:** The method of building models of clinical situations and then classified them into categories has been applied. Electromyography activity, energy metabolism and the state of increased activity of masseters, as well as TMD diagnosis and therapy, Acugraphmeridian energy analysis have been investigated. Approbated Methods for Turbulence Medicine: PDT +TENS, PIFBM, LA and TENS.

**Results and conclusion:** Laser-assisting treatment of TMJ disorders has a high degree of therapeutic efficacy and can be applied widely in daily dental practice. Best results can be obtained by the combined processes of laser photobiomodulation.

**Key words:** Neuromuscular and Somatosensory TMJ pathology, Turbulence Laser Therapy, Models of Clinical situations in TMJ Disorders.

### Biography

Julia Emil Kamenoff Medical University, Faculty of Dental Medicine, Sofia, member of the Bulgarian Association of young researchers, member of the Bulgarian Association of researchers, five years - Secretary of the dental section.



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