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## A new concept and design for an alloplastic total TMJ prosthesis using PEEK LT1 20% Ba

The TMJ (Temporo Mandibular Joint) is a complex joint, with distinct anatomical and functional characteristics, difficult to treat. Many authors, from the early 20th century, reported techniques for TMJ reconstruction, aiming at returning its shape and ideal function. Many prototypes have been developed in pursuit of the ideal prosthesis, which adheres to the principles of biomechanics and biocompatibility, with good long-term performance and lower cost. Based on 10 years of experience (1990 to 2000) with 125 patients who underwent TMJ reconstruction using full custom prosthesis in gold (unilateral and bilateral), with a new design and shorter than the prosthesis found in the market. A new surgical technique was performed, less traumatic, than used by other surgeons in the world because of the high cost of gold alloys, ensued in search of a suitable material, to follow the ideal characteristics. Among the new materials, highlights PEEK LT1 20% Ba, is a polymer derived from petroleum (Invibio, UK), thermoplastic, biocompatible, inert and high stability and resistance. Successfully used as the material of choice for orthopedic implants and spine. This study demonstrates the feasibility of a custom prosthesis in PEEK LT1 20% Ba with protocol development for TMJ reconstruction.

## **Biography**

Wladimir Genovesi currently works at the Oral&MaxilloFacial & Pain Clinic, Hospital 9 de Julho, Brazil Wladimir does research in Oral and Maxillofacial Surgery. His major area of interest includes, Implant Dentistry, Oral Surgery, Dental Implantology, Oral Implantology, Maxillofacial Surgery, Orthognathic Surgery, Maxillofacial Injuries, Oral and Maxillofacial Surgery and Tmj surgery

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