This Theme was also sent you by DDS Roberto Daniel Mesas, because both specialties are required for his explanation.

INFLUENCE OF THE VARIABLE LOADING FACTOR ON THE MASTICATORY SYSTEM AND THE TEMPOROMAXILAR JOINT AND ITS CORRELATION WITH THE CLINIC

ABSTRACT

The integral analysis of the Temporomandibular Joint (TMJ) and the osteo-ligament-articular and muscular structures was carried out together with their associated neural network. This determined the high degree of correlation of the factors that affect the dynamic-functional balance of the Temporomandibular System (TMS) and the self-dynamics of the System.

Finite element studies were used to represent the effects of load factors (G forces) in the laboratory and over military combat aircraft, to try to extrapolate the results to field work. The dynamic parameters of the TMJ were measured, using a variable load factor (force G) imposed on the pilots in a sequence of military flights.

The application of sustained load factor allowed to visualize in a short period of time, what would take a researcher years to observe, about the typical anomalies of the temporomandibular system and the associated dynamic structures in a patient, besides being able to study the relaxation time that the masticatory system needs, in order to recover its physiological stability, understanding which are the adaptation mechanisms for it.

It was determined that not only asymmetric efforts (responsible for the multiple positions of each tooth or dental prosthesis), are responsible for generating harmful loads on the Temporomandibular System, but also have a high degree of correlation, in general, with the damage caused at the TMJ, due to alterations in biomechanical lever systems.

Therefore, the methodology of dental treatments must be reconsidered, starting from functional recovery, through appropriate biomechanical mechanisms, to then give way to the corresponding dental rehabilitation, which will result in the functional stability of the masticatory system, dental-prosthetic rehabilitation and the balance integral of the body understanding the masticatory system, as an integral part of a Whole (Holistic Vision).

KEYWORDS: TMJ, Temporomandibular System, Functional Dynamic, Biomechanical Lever, Variable Load Factor, Integral Holistic Vision, Factor Correlation.