

STUDY OF THE MUSCULAR FORCES THAT ACTING ON THE DEVICE STOMATOGNANT LEVEL

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Abstract

In the following paper we will present you a study of the mandible loading in the mechanic point of view, the mandible being analysed as a beam. The mandible is petitioned by the forces in the condil, the resultant of the muscular forces and the ocuzal forces. The demand of knowledge and study of the forces that act on the mandible leads to the finding of the problems that appear at the level of the stomatognathic apparatus. The analysis is made only in the mechanic point of view, without the presentation of medical solutions.

The forces who are acting on the mandible and upper jaw, require a thorough biomechanical theoretical study. You can use these forces, only if the positioning limitations have been calculated. For any position limitation we obtain a force which was calculated using static analysis

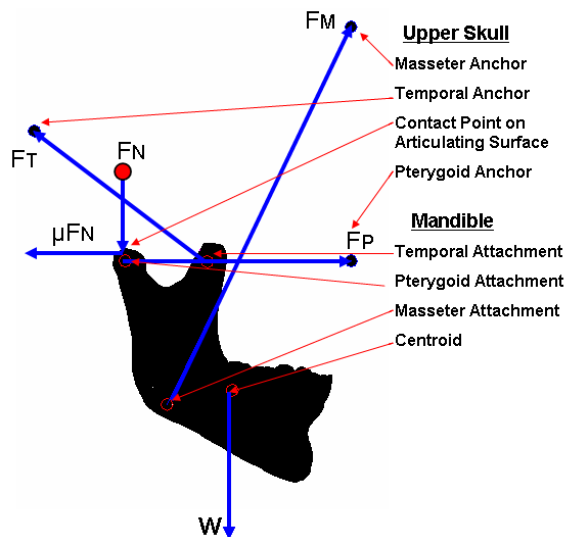


Fig. 1 Diagram of the forces in the manibura

Studied muscle forces are reduced to forces represented in Figure 1.

Bibliography

1. B. Daumas 1, W.L. Xu *, J. Bronlund, „Jaw mechanism modeling and imulation”, Institute of Technology and Engineering, College of Sciences, Massey University, Palmerston North, New Zealand, 2005
2. Bryan Galer, Nathaniel Hockenberry, James Maloof, Mia Monte-Lowrey, Katelyn O'Donnell de la Department of Mechanical, Industrial and Manufacturing Engineering College of Engineering, Northeastern University Boston, în lucrarea „Human jaw motion simulator”. April 17, 2007
3. C. Wilkinson, G.B. Dijksterhuis, M. Minekus, From food structure to texture, Trends in Food Science & Technology 11 (2000) 442–450.