

An Electrodiagnostic Evaluation of the Electrical Stimulation Treatment of Temporomandibular Joint Dysfunction Syndrome

**TAREK LOTFY AL-KHATEEB⁽¹⁾, Ph.D., HUSSEIN MALIBARY⁽²⁾ Ph D
KAMAL DAGOSTANI⁽³⁾, F.R.C.S., and AHMAD ATTALLAH⁽⁴⁾, Ph.D.'**

(1) Dental Surgery Dept., (2) Neurology Dept.,

(3) E.N.T. Dept., and (4) Physiology Dept.

Faculty of Medicine and Allied Sciences,

King Abdulaziz University, Jeddah, Saudi Arabia

ABSTRACT. An electromyographic investigation of the masseter muscles was undertaken under standardized conditions. The masseteric silent periods (MSP) in healthy volunteers were compared with silent periods (SP) in patients with temporomandibular joint (TMJ) dysfunction syndrome before and after electrical stimulation treatment by Transcutaneous Electrical muscle stimulation. About 87% of the patients with TMJ dysfunction showed prolonged silent periods in the masseter muscles. Initially, 80% of the silent periods became normal range immediately after the electrical stimulation treatment. However, 24 hours after the treatment the silent periods returned to the abnormal range.