

Maxilla to Mandible

Summer 2005

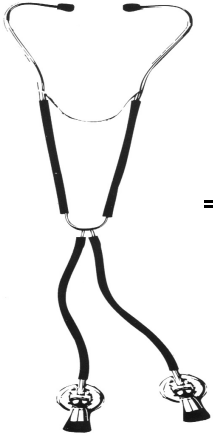
Dr. Gerald B. Wexler, B.Sc., D.D.S.

General Dentistry practice limited to

Temporomandibular Disorders, Orofacial Pain, Oral Reconstruction

2197 Riverside Drive, Suite 105, Ottawa, Ontario K1H 7X3

Phone (613) 731-2149 Fax (613) 731-0558 /www.drgeraldwexler.com



Topics In This Issue

Pre- and Posttreatment Analysis of Clinical Symptoms of Patients with TMD.....	1
TMJ Internal Derangement Treatment in the Growing Patient: Effect of Functional Appliance Therapy.....	2
Prevalence of Traumatic Stressors in Patients with TMD.....	2
Ultrasonographic Features of the Masseter Muscle in Female Patients with TMD Associated with Myofascial Pain.....	2
Temporomandibular Involvement in Juvenile Idiopathic Arthritis.....	2
Relationship Between Habitual Occlusal Position and Flat Bite Plane Induced Occlusal Position With and Without TMJ Sounds.....	2

Editorial

I have been asked on a number of occasions to review the issue of when it is appropriate to refer patients for a TMD consultation. The question usually revolves around asymptomatic clicking in one or both joints.

Clicking is the result of a disc dislocation in the joint. For some patients, this can remain constant without symptoms for their lifetime. Other patients will worsen over time and start developing symptoms. These symptoms can include joint pain, earache, muscle pain in the temporalis and/or masseters, headache, jaw stiffness and fatigue. A more severe symptom would be locking.

For asymptomatic clicking, it is wise to determine whether there has been a slow onset or a fast one. Slow onset usually indicates a more chronic and adaptable situation which will likely be less problematic. Fast onset of symptoms usually represents a more serious problem.

Patients should be referred for all symptomatic clicking and for fast onset situations. The other situations should be monitored over time - any worsening of the clicking re: frequency, severity, or intensity, should be referred even if there is no pain.

As well, cases with asymptomatic clicking may be considered for treatment with an appropriate fully balanced and cuspid guided nightguard as a preventative measure, since we never know for sure whether the symptoms we see will worsen over time.

All patients should be advised of their clicking, what it represents, potential future problems and options for treatment.

In any case, if you are not sure, then refer.

Please note we have changed the format of our newsletter for easier reference and reading. We appreciate any feedback in regards to this change!



Pre- and Posttreatment Analysis of Clinical Symptoms of Patients with TMD

TMD patients diagnosed with disc displacement with and without reduction were the subjects of this study. Complaints included clicking sounds, crepitus, and pain upon mouth opening. Some of the patients had parafunctional habits or contralateral-side mastication. Almost all the patients had side deviation and a number of them had pain upon bilateral palpation.

Treatment started with anti-inflammatory medication for patients experiencing pain. All were provided with anterior repositioning splints, and patients with limited mouth opening did exercises which increased their range of opening. A significant number of the patients received injections of sodium hyaluronate into the superior joint space.

Occlusal splinting resulted in improvement in symptoms after six months; clicking sounds were reduced by 45% and crepitus was reduced by 28.5% from pretreatment levels. There was a very significant reduction of contralateral-side mastication. The splint therapy did not eliminate parafunctional habits, and to avoid pretreatment symptoms, a night plate was used.

Quintessence Int 35: 811-814, 2004

Dr. Wexler has 26 years experience in the field of jaw treatment. He is a Diplomate, American Board of Orofacial Pain, member of the American Academy of Craniofacial Pain, American Academy of Orofacial Pain, American Headache Society, and the American Academy of Dental Sleep Medicine. He is a Fellow of Academy of General Dentistry, member of the Canadian and Ontario Dental Associations and the Ottawa Dental Society. His practice is limited to treatment of temporomandibular disorders and orofacial pain.

TMJ Internal Derangement Treatment in the Growing Patient: Effect of Functional Appliance Therapy

A 14 year-old female developed TMD after extraction of bicuspids. Functional jaw orthopedic therapy was used to move the condyle to a position as close as possible, allowing disc reduction. After 1 week of wearing the appliance, mouth opening had increased up to 32 mm and tenderness upon palpation had disappeared.

Seven months later, mouth opening, protrusion and lateral excursions showed a normal range. Magnetic resonance imaging (MRI) confirmed the re-establishment of normal condyle-disc relationships into maximum intercuspals relationships. Eighteen months after treatment, the patient had no TMD symptoms and normal facial symmetry/occlusion.

J Clin Pediatr Dent 29: 11-18

Prevalence of Traumatic Stressors in Patients with TMD

Traumatic events can lead to stress and result in more severe pain, affective distress, and disability. In this study of 1221 patients with chronic TMD pain, about half had undergone some sort of stressful event, most frequently involving death of family member or friend or sudden injury or illness.

Almost half of chronic TMD patients reported being subject to at least one major traumatic stressor occurring before the onset of jaw pain. These patients reported greater severity of pain and other psychological problems and inadequate coping skills. Learning to cope with stress should be a major part of therapy and tailored to each individual.

J Oral Maxillofac Surg 63: 42-50.

Ultrasonographic Features of the Masseter Muscle in Female Patients with TMD Associated with Myofascial Pain

In this study, the authors examined the thickness of masseter muscles in young female patients (ages 18-40) who were suffering from myofascial pain and compared the results to healthy young females. Ultrasonography was used to measure muscle thickness, which increases in patients with TMD. In this study, the patients had long-term muscle pain and showed a thicker muscle compared to healthy patients (9.7 mm vs. 8.28 mm, respectively), which was

attributed to muscle edema. There was also a significant difference in distribution of muscle types between the two groups.

Oral Surg Oral Med Oral Pathol Oral Radiol Endod 98: 337-341.

Temporomandibular Involvement in Juvenile Idiopathic Arthritis

Juvenile idiopathic arthritis (JIA) is a chronic inflammatory disease that lasts longer than 6 weeks in children younger than 16 years-old. TMJ involvement can range from 17% to 87%. The authors found that almost half of JIA patients in this study had TMJ involvement, after evaluation using orthopantomograms. The systemic and polyarticular patients had the highest risk of developing TMJ involvement.

Risk factors overall included absence of translation during maximal opening of the mouth, asymmetry of the maximal opening, and protrusion and crepitation. Impaired mouth opening was also an important indicator of TMD that should be checked regularly. The authors recommend periodic evaluation with orthopantomograms for all JIA patients, which they do at least once a year.

J Rheumatol 31: 1418-1422.

Relationship Between Habitual Occlusal Position and Flat Bite Plane Induced Occlusal Position With and Without TMJ Sounds

The mandibular displacement from the habitual occlusal position to the intercuspals position appears to be associated with TMJ sounds, since the authors found a much larger difference in the variation on the z-axis between these two positions in patients with such symptoms compared to those without.

The large variation with the occlusal position may be attributed to the instability of the mandibular position. Thus, the occlusal position described here may be useful as a reference position in asymptomatic individuals. The authors also suggest that this occlusal position could be used as a reference point in symptomatic patients by improving its reproducibility to a level equivalent to that of asymptomatic subjects, perhaps by using some form of therapy or device.

J Craniomandib Prac 23: 16-21