

# PROCEDURES MANUAL

# TMJ SYSTEM™ MANUAL

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**TMJ DISORDER AND  
THE MRC TREATMENT SYSTEM**  
Immediate and Effective Diagnosis and  
Treatment.



# TMJ SYSTEM™ PROCEDURES MANUAL

## INTRODUCTION

In 1990, MRC introduced its first prefabricated appliance – the TMJ APPLIANCE™. This was the first use of CAD to produce a universally-sized, prefabricated appliance that could assist in immediate diagnosis and treatment of TMJ disorder. Since that time, not only has the TMJ APPLIANCE™ been updated but other appliances have been added to the range to compliment the treatment options for the practitioner.

The purpose of this manual is to explain simply the clinical application of the TMJ System™ of appliances from MRC.

## PATIENTS WANT

### IMMEDIATE SYMPTOM RELIEF

MRC offers simple and effective appliances for the majority of applications.

The TMJ System™ of appliances from MRC has been developed through extensive clinical experience over the last two decades. During this period the philosophy has always been to keep the diagnosis and treatment as simple as possible for the patient and practitioner, which saves doctor time and becomes less expensive for the patient to reduce symptoms.

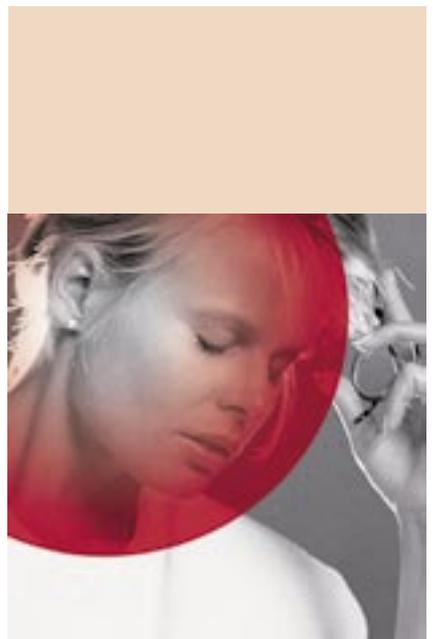
A great number of doctors seeing successful outcomes for their patients have requested appliances for treatment of a wider ranges of TMJ disorder. MRC has therefore introduced a range of appliances from the initial TMJ APPLIANCE™ to include the TMJ-MBV™ especially made for mouth breathers, snorers and diagnosis of sleep apnea.

A further development was made a number of years ago when doctors indicated that they preferred to compliment the pre-moulded range of appliances with more customizable splints. MRC introduced the TMD APPLIANCE™ and, more recently, the BRUXOGUARD™ Soft and Hard.

This range of appliances now warrants a new approach to the selection and application for the TMJ patient. This manual is written with particular purpose in mind and provides guidelines on which appliance to use, when and why.

Not only is it necessary to consider the profile of the patients, the symptoms and the most appropriate appliance to use for symptom relief, there is also a requirement as to the preference of the practitioner. Some practitioners may prefer an upper appliance or a non-mouldable appliance while others may prefer a customized appliance.

The TMJ System™ manual will outline the profile of the patient for whom the TMJ System™ is appropriate to start.



## PATIENTS WANT IMMEDIATE SYMPTOM RELIEF

**MRC offers simple  
and effective  
appliances for  
the majority of  
applications.**

## WHAT IS TMJ

The term “TMJ” relates to the temporomandibular joint. “Temporomandibular joint disorder” is also known as cranio mandibular disorder and occlusal dysfunction. However, these other names can often be inappropriate.

The term “TMJ disorder” is now preferred by many because it relates to a TOOTH, MUSCLE and JAW dysfunction. An interaction among three structural and functional components to produce pain and discomfort in the patient. The most overwhelming influence on these structures is functional. i.e. Myofunctional habits have a great bearing on the positioning of the teeth the structure of the maxilla and the mandible and, of course, the health of the temporomandibular joint.

The TMJ patient can present with a complex series of symptoms, as was documented by Costin<sup>1</sup> in the 1930s. The multitude of symptoms related to the dysfunction of the temporomandibular joint and its structures were described as potentially very distant from the joint itself.

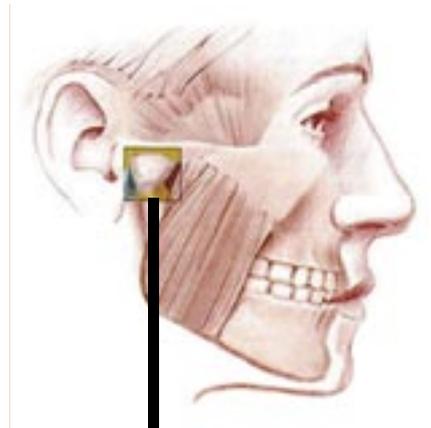
For this reason, there have been a lot of different approaches, philosophies and theories about the ethnology, diagnosis and treatment of varying TMJ disorder. Professional arguments still break out once the subject of TMJ is raised. This manual will attempt to bypass the arguments and focus on simple and effective treatment.

## THE TMJ PATIENT

Temporomandibular joint disorder can be confusing for the dental and medical practitioner because of the wide range of symptoms that these patients can exhibit. The profile of the TMJ patient is highly variable. Sometimes it is perceived that it is just a joint problem, like jaw clicking with pain, limited opening of the jaw, or a bruxing problem. More complex symptoms like head, neck and ear pain lead to suspicion of a stress or psychologically-related disorder. Dentists commonly attribute all the symptoms to an occlusal or bruxing problem. The first step to diagnosis is to ask the patient to list their symptoms **(using the TMJ questionnaire sheet)**

## CAUSES OF TMJ/D

Dentists tend to perceive that bruxing and malocclusion are the major causes of TMJ disorder because they are trained to think firstly of the teeth. In some cases this is correct but in many cases it is not correct. A common conception is that the patient is bruxing and grinding their teeth, although many patients show no signs of this. Oral surgeons, in particular, often look for pathology in the joint and using MRIs and x-rays to detect



### SELF EVALUATION TEST

#### 1. DO YOU SUFFER FROM:

HEADACHES	MUSCULAR STIFFNESS
JAW CLICKING AND PAIN	FACIAL PAIN
NECK PAIN	EAR PAIN

**use the TMJ questionnaire sheet (Ask for the TMJ DL Brochure from MRC)**



# TMJ SYSTEM™ PROCEDURES MANUAL

pathology in the joints, but quite often there are no signs of degeneration in the joints. TMJ disorder is then often ruled out as cause of the pain. This can be wrong. In many cases, there are no signs of clicking or limited opening, the joint appears normal, but the patient has many painful symptoms. In the absence of these factors, many dental and medical practitioners perceive the symptoms of TMJ disorder to be psychological and respond with appropriate medication. The theory that the patients are mad is quite often an opinion voiced in some groups of the dental and medical professions.

## DIVERSE SYMPTOMS

One of the problems experienced in diagnosing TMJ disorder is that the symptoms are so diverse and the diagnostic criteria can be so variable depending on the training of the professional, the outcome of the diagnosis and the following treatment can be highly variable between both the patient and the treating practitioner. Even as far back as 1948, Dr Victor Stohl<sup>2</sup>, a New York dentist, described the widespread symptoms of TMJ disorder which go beyond the head and neck. Interestingly, he was also the first to indicate that the dissipation of swallowing and the balance of the head on the spine are significant factors in TMJ disorder<sup>2</sup>.

## PREVALENCE of TMJ/D

The fact is TMJ disorder is a widespread problem and the American Journal of Orthodontics has published many articles relating to research on TMJ disorder. One, in particular, shows the prevalence of TMJ signs and symptoms in children and young adults is 35 – 72%<sup>3</sup>. This indicates that this is a widespread problem and also that it may be associated with growth and development problems. The number of children presenting in an orthodontic practice with TMJ disorder is well above 60% and American Journal of Orthodontics has evidence to confirm this. Doctors need to be more aware of this research to properly treat the symptoms.

## THE TOOTH, MUSCLE AND JAW DISORDER

The more enlightened name for TMJ disorder could be “Tooth, Muscle and Jaw Joint Disorder”. This name assists in encompassing many of the possible causes.

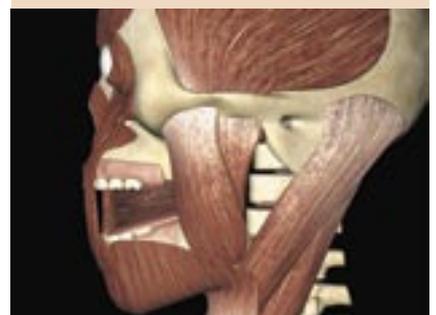
TMJ disorder is often associated with an occlusal problem, but the question remains as to what causes the occlusal problem. **(See information on soft tissue dysfunction)**. TMJ disorder certainly can be related to muscular, para- functional and myofunctional problems, but these also effect the position of the teeth and the occlusion. The damage to the temporomandibular



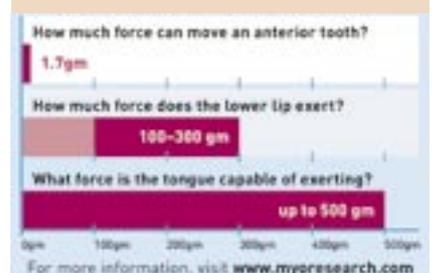
**In many cases, there are no signs of clicking or limited opening, the joint appears normal, but the patient has many painful symptoms.**



**The number patients presenting in an practice with TMJ disorder is 35 – 72%**



**TMJ is often associated with an occlusal problem**



joint from a blow to the jaw can clearly cause joint problem. This intra-capsular problem from trauma can also be caused by soft tissue dysfunction, like incorrect swallowing and mouth breathing. **(See video information on TMJ and myofunctional habits)** The Myofunctional Research approach looks at the myofunctional habits and what effects they can have on the joint. More information on the ethological factors and the TMJ disorder is contained in our library. Understanding this key aspect markedly improves diagnosis and treatment success.

## KEEPING IT SIMPLE

The approach of MRC has always been to keep the diagnosis and the clinical treatment as simple as possible. Complex treatment tends to deter practitioners from the TMJ patient, who merely want symptom relief.

It is important to get a full history of the patient to determine their profile, most of all is the diagnosis of the disorder. i.e. we first of all need to determine whether the symptoms are directly related to TMJ disorder.

It is important to get a full history from the patient, which will be most important in determining whether this patient can be assisted with the MRC appliance system. Added to this the next most important thing is the immediate reduction in pain for the patient (using the TMJ questionnaire sheet).

## DIAGNOSIS

The first differentiation is – does the patient have symptoms related to the joint itself which are intra-capsular or do they have more external pain like headaches, neck pain and other lot more wider symptoms, which are extra-capsular. Most patients have a combination of both. This is where the educational background of the practitioner sometimes clouds the issue. Dentists tend to focus on the teeth and the joints while the medical practitioner tends to focus on the extra-capsular symptoms like the headaches, the ear pain and neck pain.

As all TMJ patients usually present with some level of all of the symptoms, it is important to document all the symptoms and try to be objective and not jump to conclusions. Whatever the symptoms, TMJ disorder generally responds to the decompression of the joint, limitation of par functional habits and changing the resting position of the craniomandibular muscles.

This function is all carried out by the TMJ System™ of appliances. Some appliances are better than others at doing certain important jobs.

For the first decade of MRC there was only the



**a blow to the jaw can clearly cause joint problem.**



**use the TMJ questionnaire sheet (Ask for the TMJ DL Brochure from MRC)**



# TMJ SYSTEM™ PROCEDURES MANUAL

TMJ APPLIANCE™. As a general rule of thumb, the TMJ APPLIANCE™ will cover most of the possibilities. If, however, the patient is a mouth breather they may experience difficulties in holding the appliance in their mouth. If the patient is a heavy bruxer, they may tend to grind through it. Due to these reasons, many practitioners prefer a molded appliance that their patients can wear during the day and this is where the TMD APPLIANCE™ can be used. The TMD APPLIANCE™ is vastly superior for the use in intra-capsular problems.

Treatment with these appliances covers both intra-capsular and extra-capsular TMJ treatment. Although some variations of this disorder in the individual patient would lead towards treatment with either primarily the TMJ APPLIANCE™ or the TMD APPLIANCE™. The use of the two-phase system covers the dual complexity in diagnosis whether the problem is just the joint (intra-capsular) – clicking, discomfort in the joint or limited opening, or a cranio-mandibular/MPD type disorder (extra-capsular). These two categories are often so overlapped that the majority of patients have both intra and extra-capsular symptoms and causes.

## PATIENT EXPLANATION

Once the patient's symptom profile is decided it is important to explain to the patient what their problem is and then, using the TMJ APPLIANCE™, show the patient how they can immediately be relieved of pain at their first consultation. See the TMJ video for the muscle and joint palpation procedure.

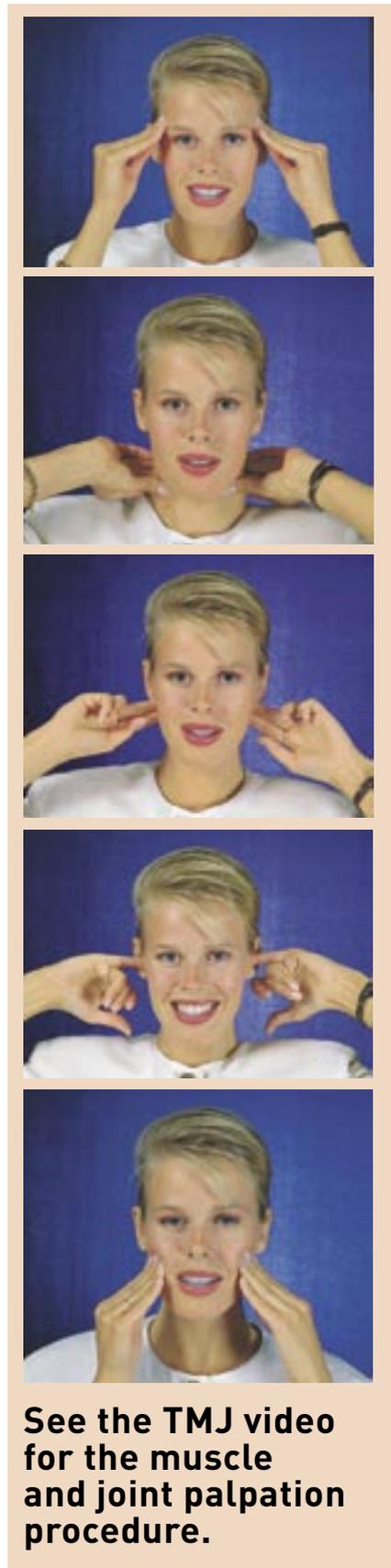
## USING THE TMJ APPLIANCE™ FOR DIAGNOSIS

The doctor should perform the muscle and joint palpation procedure as seen in the TMJ System™ video and the TMJ APPLIANCE™ brochure. The patient should then put the TMJ APPLIANCE™ in place in the mouth and the doctor should then re-perform the muscle and joint palpation procedure. Less pain and less clicking of the joint is a positive indicator of a TMJ disorder causing the pain, and the TMJ APPLIANCE™ should help with treatment. The patient should then be re-tested (as in video) without the TMJ APPLIANCE™ to determine if the pain returns soon after removal of the appliance.

**A definitive diagnosis is now achieved.**

## PATIENT CONFIDENCE

Having carried out the clinical diagnosis and the muscle and joint palpation procedure in conjunction with the TMJ APPLIANCE™, the practitioner has now established to the patient the probable advantage of the TMJ System™ of



appliances.

## THE TMJ SYSTEM™ FOR DIAGNOSIS AND TREATMENT

The myofunctional TMJ System™ for diagnosis and treatment now involves a new two-phase system. It is simple, quick and patients love it.

There are many debates about whether splints should be hard or soft, upper or lower, with canine guidance, without canine guidance, so much so that the average dentist is confused as to exactly what to do for these patients. The myofunctional system covers this area with both a hard and a soft splint or upper or lower customizable splints. The doctor's preference is catered for as well as that of the patient.

## APPLIANCE SELECTION

The first determination to make is whether the patient has intra-capsular or extra-capsular symptoms. Most patients have a combination of both.

## THE TMJ APPLIANCE™

The TMJ APPLIANCE™ has been available as an immediate diagnosis and treatment system for more than 10 years now. It has been a breakthrough in immediate diagnosis of TMJ disorder, however many dentists find that while they get good symptom relief from this appliance the next stage of treatment, which involves making an acrylic splint as they were taught, does not bring the continued expected result. Many doctors requested Dr Farrell and MRC to produce a replacement for the daytime laboratory made, acrylic appliance.

## THE TMD APPLIANCE™

With the introduction of the TMD APPLIANCE™, a harder semi-flexible, customizable daytime splint to be used in combination with the night time TMJ APPLIANCE™, an ideal, dually effective and easy-to-use appliance system is now available. **See molding instruction video from [www.TMJsystem.com](http://www.TMJsystem.com)**

If the patient primarily has joint symptoms, a full time splint is best to use because the correct mandibular position can be obtained where it eliminates the clicking. This position is usually more forward and closer to edge to edge. This prevents the disc displacement and allows healing of the capsule. A primarily intracapsular problem can be treated with the TMD APPLIANCE™ full time, but experience has shown that



**The first determination to make is whether the patient has intra-capsular or extra-capsular symptoms. Most patients have a combination of both.**



# TMJ SYSTEM™ PROCEDURES MANUAL

the combination of the TMJ APPLIANCE™ at night and TMD APPLIANCE in the day often gives superior results due to the soft/hard combination of the two appliances.

## FITTING THE TMD APPLIANCE™

The TMD APPLIANCE™ is fitted by placing the TMD APPLIANCE™ in boiled water for one-and-a-half minutes (1min 30 seconds) and then immediately placing it in the patient's mouth and applying it to the lower teeth. The patient is then asked to close into the correct mandibular position and bite up hard as possible. This biting is held for 20 seconds. The appliance is then removed, cooled under cool tap water, left for about 1 minute to allow the EVA to cool right down and then replaced back into the mouth to for the fit to be checked.

Keep in mind that within 24 hours this appliance will shrink a little further so the fit will be slightly tighter, but normally the fit will remain quite good.

## FLAT PLANE SPLINT

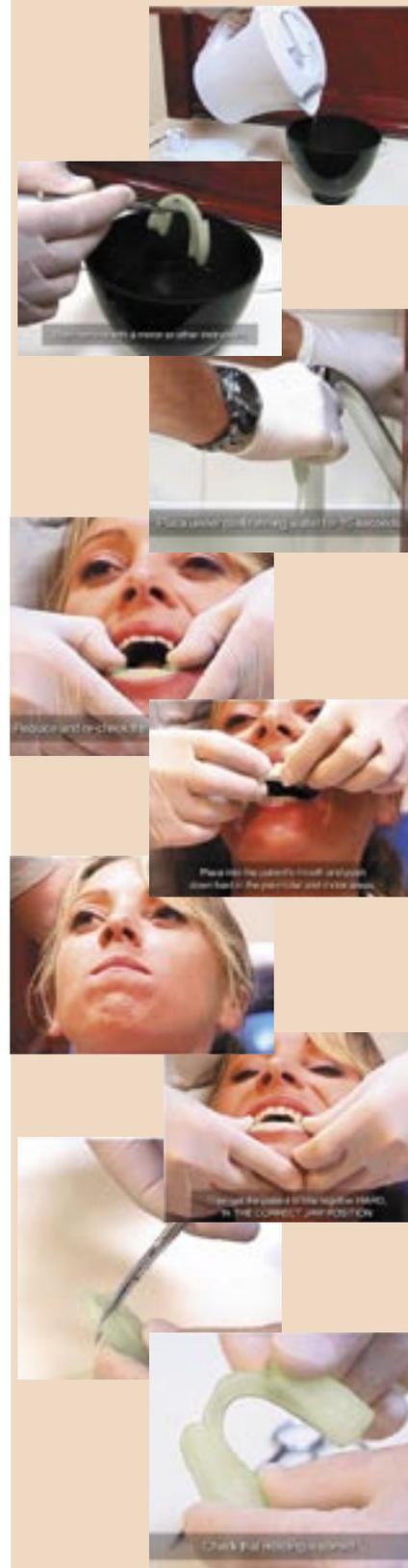
If a flat plane or pivotal splint, it may be preferable to leave the occlusal surface flat. The fitting instructions are the same but before placing the TMD APPLIANCE™ into the mouth the upper occlusal surface only is exposed to cold water (preferably in another bowl) so the lower surfaces of the appliance only are molded. The patient lightly closes to seat the appliance and obtain minimal occlusion. This will give a very light occlusion with indentation, and the possibility of customizing to a re-positioning splint, a CR splint or a flat plane splint remains available.

The patient should then be checked to ensure the joint clicking and pain is removed by the TMD APPLIANCE™ and to ensure correct comfort. Normally, no adjustments are needed. The patient is then instructed to use the TMD APPLIANCE™ during the day and the TMJ APPLIANCE™ at night. Instructions cards with the appliances contain the necessary patient information for use.

## FOLLOW UP VISITS

Suggested recall time would be approximately two weeks, where the patient is checked for symptoms, comfort of the appliance, and asked about the progress of the symptoms. Usually, even in this short period of time, lessening of inter capsular problems, and also considerable reduction in pain occurs. This is the diagnosis and, as opposed to previous times when it was necessary to go onto further treatment with acrylic splints, the introduction of the TMJ APPLIANCE™ and/or TMD APPLIANCE™

See moulding instruction video at [TMJsystem.com](http://TMJsystem.com)



can be the definitive treatment. Its slight flexibility has its advantage over the harder acrylic appliances with none of the disadvantages. Of course this still does not restrict the use of treatment alternatives.

## **NO CHANGE IN OCCLUSION - REVERSIBLE TREATMENT**

The disadvantage of the TMJ APPLIANCE™ is that of it not being able to be worn during the day is negated by the introduction of its co partner the TMD APPLIANCE™. Further follow up visits within two – three weeks can be obtained and further treatment is up to the practitioner. Most practitioners prefer to leave the patient in their habitual occlusion without making any changes. Orthodontics, crown and bridge work and other phase two treatments can be applied as appropriate once the patient has reduced symptoms.

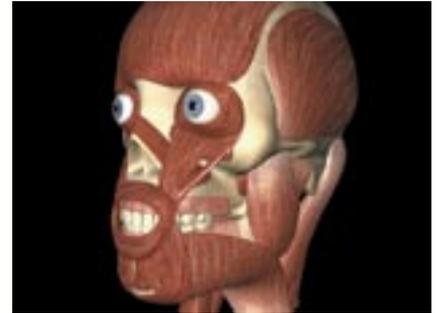
If an upper customisable splint is preferred or upper molars are missing the BRUXOGARD™ HARD in place of the TMD APPLIANCE™.

## **JUST BRUXING**

If the patient does not have severe pain and does not have severe symptoms, but has clearly a nocturnal bruxing problem, then the mouldable BRUXOGARD™ SOFT may be the appliance of choice. The single layer material is softer than the dual-molded TMD APPLIANCE™ and BRUXOGARD™ HARD and can be self-fitted by the patient without a lower occlusion. This is a soft flat plane splint which is well retained in the upper arch at night. It does not limit bruxing like the TMJ APPLIANCE™ but does have better retention for those people who have their mouth open while sleeping and have anterior tooth wear from bruxing. The BRUXOGARD™ SOFT can be said to be a tooth protector.

## **THE TMJ APPLIANCE™ MODIFIED FOR THE MOUTH BREATHER AND SNORER (TMJ-MBV™) OLD VERSION.**

The TMJ-MBV™ is a special version of the TMJ APPLIANCE™, which incorporates a thicker base at the molar area. This opens the bite by approximately 4.5mm. It also has a large breathing hole at the front which allows for mouth breathing to while the TMJ-MBV™ is in place. The disadvantage of this version is it tends to fall out at night and was not designed for the extreme snorer. The new TMJ-MBV™ was specially-designed for the mouth breather and diagnosis of sleep disorders. It allows free lateral movement of the mandible and is easy on the TM joints.



**TMJ APPLIANCE™  
at night**

**+**

**TMD APPLIANCE™  
during the day,**

**can be the definitive  
treatment.**



# TMJ SYSTEM™ PROCEDURES MANUAL

The bite opening is 8-11mm which substantially increases the airway. If the bite opening is more than what is required by the patient the distal of the base of the appliance can be trimmed 2-4 mm which will decrease the bite opening considerably. See brochure or visit the website for more information.

## TREATMENT OF SNORING

One effective concept in the prevention of snoring in selected patients is opening of the airway by opening of the vertical dimension and advancing the mandible.

This principle is used in a number of snoring devices. The problem with many of other snoring devices is that they are rigid and they hold the mandible into a downward and forward position, locking the condyles into a compressed state against the eminence.

Patients often complain about TMJ pain after wearing such hard fixed snoring appliances.

TMJ-MBV™ is made from the same soft flexible silicone material as the regular TMJ APPLIANCE™. This allows for considerable lateral and A-P movement of the mandible making the appliance more comfortable for the patient. The TMJ-MBV™ is also the most appropriate one to use for patients who already have an existing TMJ disorder. One disadvantage associated with the TMJ APPLIANCE™ is that if the patient has a severe mouth open posture, at night the TMJ APPLIANCE™ will fall out because it does not have any active retention. Careful patient selection is important in these cases.

## DIAGNOSIS

The TMJ-MBV™ can be an ideal diagnostic tool for ascertaining whether an intra-oral appliance will have some benefit for the snoring patient. Following this further, more complex appliances can be made in a laboratory with the information derived from the initial use of the TMJ-MBV™. This can be very useful in ascertaining the possible design and effectiveness of more complex appliances. In the majority of cases, however, where retention is not a problem the TMJ-MBV™ is an ideal therapeutic device.

## ADJUSTMENT

By trimming the distal end the bite opening can be varied to some extent and for a smaller mouth this is also appropriate.

**One effective concept in the prevention of snoring in selected patients is opening of the airway by opening of the vertical dimension and advancing the mandible.**



**See Videos For The Application Of the TMJ APPLIANCE™ AND TMD APPLIANCE™ at TMJsystem.com**



## EFFECTIVE AND IMMEDIATE DIAGNOSIS AND TREATMENT

The concept of applying the two-phase system at the first consultation visit or even the second consultation visit to cover both the diagnosis and treatment of these patients has found to be effective in the majority of cases. Specific case types for which these two appliances will be appropriate will be described later. The patient presenting with symptoms of TMJ disorder can be effectively treated with either appliance.

## THE ADVANTAGES OF THE TMJ APPLIANCE™

1. It is soft, flexible and easy to wear.
2. It has the double mouth guard effect with vertical sides, which limits bruxing, para functional habits and the Myofunctional Effect™ with the tongue tag and tongue guard stops tongue thrusting and other tongue habits, which are thought to be major contributing factors in TMJ disorder.
3. The TMJ APPLIANCE™ has an aerofoil shape base for joint decompression.
4. Can be fitted immediately by the patient.
5. Zero chair time to fit.

## THE DISADVANTAGES OF THE TMJ APPLIANCE™

1. The drawback of the TMJ APPLIANCE™ is that the patient cannot talk with it in place so it is primarily only appropriate as a night time appliance. The patient can, however, use it during daily activities which do not require talking such as driving in the car, around the house etc. This is not necessarily a major problem, particularly with extra capsular problems when the patients have headache, neck pain, ear pain etc. However if the patients have limited opening or jaw clicking the treatment really has to be much more during the day as well as the night time.
2. Many patients by definition are missing teeth and have very poor occlusion. The TMJ appliance™ is not necessarily as effective with these patients because it requires them to have all their teeth.



**USE 1 HOUR  
DAILY PLUS  
OVERNIGHT**

- 1. It is soft, flexible and easy to wear.**
- 2. Limits bruxing.**
- 3. Myofunctional Effect™.**
- 4. joint decompression.**
- 5. fitted immediately.**
- 6. Zero chair time to fit.**

# TMJ SYSTEM™ PROCEDURES MANUAL

## THE ADVANTAGES OF THE TMD APPLIANCE™

The introduction of the TMD APPLIANCE™ has allowed doctors to use a splint that is quite easy to speak in, is customizable to the patient, immediately applied chair side, and has a hard inner core so that if the patient is missing teeth, or has a displaced disc for instance, the appliance can be applied for very rapid results, particularly if they have limited opening. Patients can wear the TMD APPLIANCE™ all the time. Suggested use is in conjunction with the TMJ APPLIANCE™ for night time. This is the ideal combination for treatment of both intra and extra capsular problems.

## THE DISADVANTAGES OF THE TMD APPLIANCE™

1. This appliance is not recommended for patients who are heavy bruxers as the appliance does not feature vertical sides.
2. This appliance does not have the myofunctional effect. but does have some lip bumper effect.
3. It may not be suitable for some mouth or malocclusions as they may not fit appropriately.

## THE ADVANTAGES OF THE BRUXOGARD™ HARD

1. The BRUXOGARD™ HARD is an all-rounder appliance as it is customizable with dual-moulding technology, provides full coverage of the upper dentition for great retention and can be made as a flat plane splint or set to a specific anterior or centric occlusion.
2. It will not fall out at night and can be used the same as the TMD APPLIANCE™.

## THE DISADVANTAGES OF THE BRUXOGARD™ HARD

1. Good for bruxers but heavy bruxers tend to split the dual layers.
2. Bulkier than TMD APPLIANCE™.
3. No vertical sides to limit bruxing.

## THE ADVANTAGES OF THE BRUXOGARD™ SOFT™

1. Simple single use for bruxers without TMJ symptoms.



**BRUXOGARD™  
IS AVAILABLE IN  
HARD AND SOFT  
SPLINTS**

**BRUXOGARD™**

Protects your teeth and jaws  
from night time bruxing



2. Primary function is tooth protection.
3. Can be self-fitted by the patient.
4. Good retention at night.
5. Large soft base is comfortable.

## THE DISADVANTAGES OF THE BRUXOGARD™ SOFT

1. Little control of the mandible and parafunctional habits
2. Minimal myofunctional effect
3. Cannot effectively reposition mandibular.
4. Not suitable for the TMJ patient with multiple symptoms.

## THE ADVANTAGES OF THE TMJ-MBV™ FOR MOUTH BREATHERS AND SNORERS

1. Specific latest design for the snoring and diagnosis of sleep apnea.
2. Maximum opening of the airway.
3. Immediate fit - no molding required.
4. High vertical sides for good retention, even when the mouth is open.
5. Good lateral movement of mandible unlike fixed snoring devices.
6. Full Myofunctional Effect™ with thickened lingual area to raise tongue.
7. Can be adjusted to have a smaller vertical opening
8. Four large breathing holes.
9. Air spring over molars to constantly vary mandibular opening.

## THE DISADVANTAGES OF THE TMJ-MBV™ FOR MOUTH BREATHERS AND SNORERS.

1. Its bulky size may deter patients but it is actually quite comfortable once in the mouth.
2. Specialised appliance so patient selection is more critical.



- Design for the snoring and diagnosis of sleep apnea.
- Maximum opening of the airway.
- Immediate fit - no molding required.
- High vertical sides for good retention.
- Good lateral movement of mandible.
- Full Myofunctional Effect™.
- Can be adjusted to have a smaller vertical opening
- Four large breathing holes.
- Air spring over molars to constantly vary mandibular opening



## PATIENT FOLLOW UP CONSULTATION

The patient should be reviewed at two weeks and then every one - two months for the first six months. Symptom relief should be checked at these visits and appliances examined for wear. Replace appliances as necessary. Most patients will be happy to continue wearing the appliances as needed after this period. Some patients may need further dental treatment while some will be symptom-free, needing only periodic use of the appliance in the future. Patient education is important so doctors are encouraged to use MRC's Patient Information CD to save time in repeated explanations.

## TMJ APPLIANCE™ IN THE ENT OFFICE

### TMJ TREATMENT PROTOCOL

### ENT CLINIC

by DR GEORGE LEWKOVITZ

#### PRESENTING SYMPTOMS

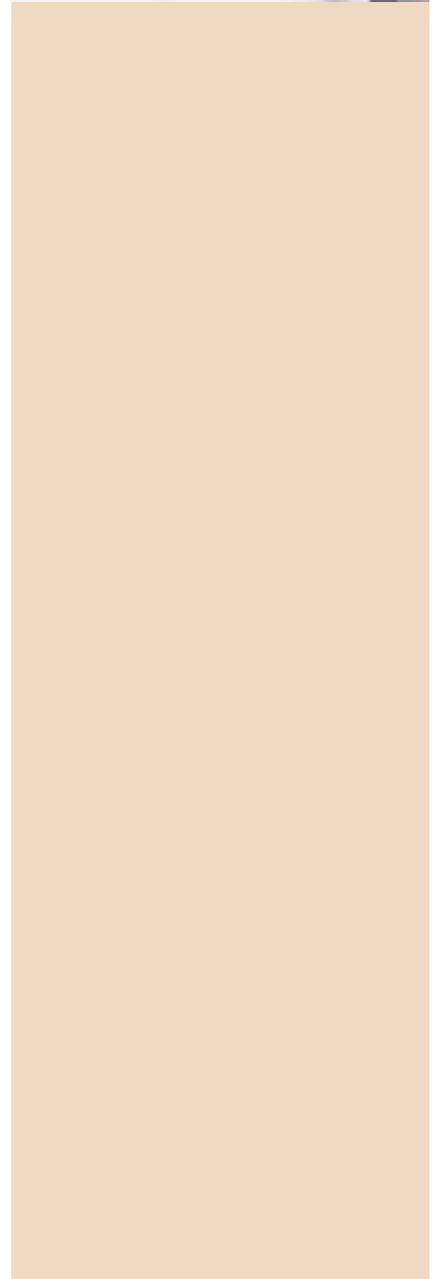
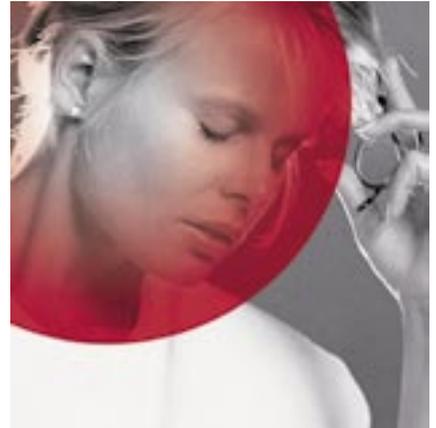
Whilst it is true that temporomandibular joint dysfunction is an extraordinary mimic of ENT head and neck disorders, most typically it presents as face pain or discomfort in the region of one and sometimes both ears. Most characteristically, there is movement of pain from the temporomandibular joint ear region to the jaw, neck or face. Such radiating discomfort is a hallmark of TMJ disorder. However, all specialists recognise the wide range of additional symptoms of the jaw and neck, ear and eye that may also be part of this disorder.

#### EXAMINATION FINDINGS

Most typically, tenderness of one or both temporomandibular joints will be elicited on examination. This tenderness may be more marked on one side. Tightness of the face and neck muscles may be noted. Palpation of the jaw during jaw movement, may reveal clicking or grating, limitation of jaw opening or a lateral deviation tendency of the jaw on one side when opening.

#### **ENT examination invariably shows no other relevant findings.**

Oral examination for signs of bruxism may show relevant oral buccal mucosal ridging and dental enamel damage. Gingivitis should be excluded as this may require intensive treatment to prevent further deterioration whilst using an oral appliance.



## **TREATMENT**

I divide my treatment regimes according to whether the symptoms are acute, being less than one month's duration, or acute on chronic, or chronic duration in nature.

### **Acute**

These patients will often settle on medication alone and I prescribe analgesics and heat therapy plus a muscle relaxant such as diazepam either at that time or two weeks later if the symptoms are not significantly improving. A soft diet is recommended.

Stress, where present, should be addressed.

Some acutely presenting patients object to medications or confess to be poor compliers with medication. In these patients the provision of a TMJ APPLIANCE™ plus yoga based muscle relaxation exercises, both whole body and head and neck based, become relevant.

### **Acute on Chronic TMJ Disorder**

Where a patient presents with acute symptoms but demonstrates evidence of bruxism of past occurrence of TM joint dysfunction in the history or clinical examination, the early prescription of a TMJ APPLIANCE™ is relevant.

Simultaneous prescription of analgesics, heat therapy, and the prescription of muscle relaxants or antidepressants depend on the clinical history and patient personality.

### **Chronic TMJ Dysfunction**

Where a patient has a recurrent history of symptoms related to TM joint dysfunction where stress is clearly an ongoing personality characteristic and where there have been longstanding and continuing dental problems, the prescription of the TMJ APPLIANCE™ plus the temporary use of analgesics and heat therapy, is an initial presentation. Dental specialist referral is often also required.

The diagnosis of TM joint dysfunction is, of course, much more complex than the functional outline given above but this treatment regime has ensured a methodical approach to this interesting and common disorder of TM joint dysfunction, often rescuing patients whose symptoms have been present for many years without satisfactory relief.

For further information, particularly about the etiology of the TMJ disorder click on the animations and also go to the library of the TMJ disorder. [www.TMJsystem.com](http://www.TMJsystem.com)

# TMJ SYSTEM™ PROCEDURES MANUAL

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