

Consent for Provision of a Mandibular Advancement Device (MAD) to assist in the management of snoring and mild obstructive sleep apnoea

Importance of good sleep

It is vitally important that we all receive the appropriate amount of sleep for our bodies to rejuvenate and maintain healthy function and homeostasis. Good sleep helps the body recover from disease and maintain cognitive function and emotional status. Sleep deprivation can be caused by our pattern of work, not respecting our body's call for sleep, or medical conditions such as snoring or obstructive sleep apnoea. What is more - when your condition results in loud snoring, it is not only your sleep that is affected but that of your partner as well. This sleep deprivation on two individuals can cause relationship strain and disharmony.



Your dentist can help you recover a healthy sleep pattern with a mandibular advancement device, but this should be in conjunction with your doctor. As your dentist is not a respiratory physician, it is VITAL that you inform your doctor of any dental intervention for snoring/sleep apnoea so that he can refer you for advanced assessment where necessary.

Why you have been recommended the provision of a mandibular advancement device (MAD)?

You are either suffering from day-time sleepiness or you are suffering from excessively loud snoring and have been advised/recommended to consider use of a mandibular advancement device. Loud snoring can affect you and your partner's ability to sleep.

You have been informed of the benefits of using an intra-oral (mouth) appliance to be worn while you sleep. This appliance holds your jaw forwards and opens your airways to enable smoother breathing, and this may help alleviate snoring or mild to moderate obstructive sleep apnoea. The result should be better oxygenation and reduced breathing turbulence and noise and this may help you sleep better.



Should you be suffering from moderate to severe sleep apnoea, you should receive full medical assessment from your doctor and respiratory support sleep centre (RSSC) rather than embark on the fabrication of a mandibular advancement device. It is not within the scope of practice of a dentist to diagnose obstructive sleep apnoea. The primary management of obstructive sleep

apnoea is to use continuous positive airway pressure (CPAP) in collaboration with a respiratory physician and not by a mandibular advancement device with a dentist.

Importance of good oral health prior to fabrication of your mandibular advancement device (MAD)

Your mandibular advancement device is precision made and fits accurately around your teeth. If you have gum disease, or teeth have any fragile fillings or need crowns this MUST be undertaken before fabrication of the appliance.

Teeth will continue to move with gum disease and the precision-made appliance will become ill-fitting very soon if gum disease is not stabilised. What is more, the appliance will be damaging to your oral health if gum disease is not stabilised.

The MAD is not easily adjusted after completion and chrome-based appliances are not adjustable at all. This means that should you suffer any significant breakages of fillings or crowns and have these repaired after a MAD is fabricated this may not readily fit afterwards and the appliance will need to be re-made. The fabrication costs of these appliances are high and so the full re-fabrication fee will be levied again should an appliance need to be re-made.

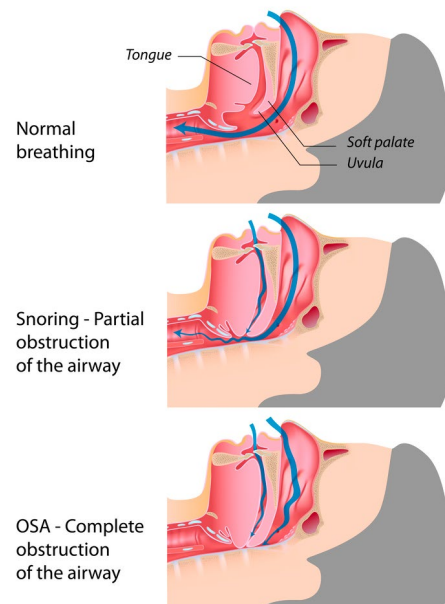
The dentist who is fabricating a MAD will advise you on the need for preparatory work, if appropriate, prior to constructing your mandibular advancement device.

The Dentist has not diagnosed your condition, nor is he/she providing medical treatment for Obstructive Sleep Apnoea (OSA)

We will re-iterate that it is not within the scope of practice of a dentist to diagnose and treat obstructive sleep apnoea. This is the role of a respiratory physician. The dentist is skilled in making intra-oral appliances. Your dentist will interview you and identify risk factors in your medical/social history and screen you for obstructive sleep apnoea based on a basic medical and social history questionnaires and use of a questionnaire known as the Epworth Sleepiness Score. Based on this score, the dentist will risk assess you as a snorer or suffering from sleep apnoea.

Snorers without apnoea, or snorers with mild apnoea may experience significant benefit from the use of a mandibular advancement intraoral appliance.

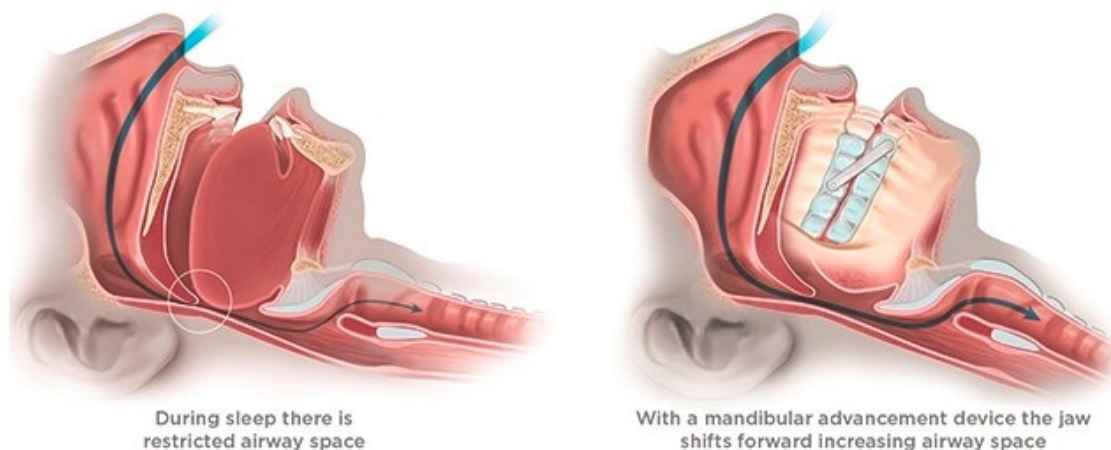
Moderate to severe obstructive sleep apnoea is a condition which can impose a significant load on the heart and result in early cardiac complications. Please do not view your wear of an intra-oral appliance as a lifestyle benefit if there is the possibility of obstructive sleep apnoea. Please do ask your doctor to help diagnose you for obstructive sleep apnoea. Your dentist may encourage this based on your initial medical/social history and Epworth Sleepiness Score and can offer a referral to your doctor.



Your doctor may ask you to write a diary outlining your sleep pattern and daytime sleepiness experience. Based on this, he/she may recommend referral to a respiratory support and sleep centre for full diagnosis of obstructive sleep apnoea. This is achieved by an overnight stay measuring blood oxygen saturation while you sleep in a sleep study. This study results in the production of a polysomnogram – a graph detailing the number of times your oxygen saturation falls below the lower recommended limit. Based on this graph, your respiratory consultant may recommend important medical treatment to help manage obstructive sleep apnoea.

How does a mandibular advancement device help an individual with signs and symptoms of snoring/mild obstructive sleep apnoea?

Very simply, a mandibular advancement device holds the lower jaw forwards while you sleep. Rather than the soft tissues converging by collapse at the back of the throat causing a restricted air-way space, the mandibular advancement device maintains a patent and open airway by holding the lower jaw forwards.



There are various mandibular appliances available with different levels of sophistication. Our view is that the gold standard appliance is a chrome based device, based on traditional metal denture fabrication and known as a Somnowell™ MAD. This appliance holds the jaw forwards while you sleep and this has the effect of opening up your airway, rather than allow the soft tissues at the back of your mouth and throat drape across a broad-based tongue to inhibit free air-flow. The chrome appliance is relatively thin compared with the other materials used in intra-oral appliance fabrication, and relatively tolerant in the mouth. The appliance has lateral freedom which allows your jaws to move sideways slightly and this will provide some measure of comfort in letting your jaw adopt natural habitual positions while still remaining postured forwards and keeping your airway open.

There are different appliance types which are more economically priced and fabricated with acrylic such as methyl methacrylate or ethylene vinyl acetate copolymer or similar materials. These materials are typically significantly thicker than the chrome Somnowell™ device. The acrylic appliances have limited lateral play and tend to constrict your jaw in a specified forward position.

Our position is that such an acrylic mandibular advancement device should be regarded as a diagnostic appliance and should only be used as a temporary device or if economy is critical for your current needs.

Whether you use an acrylic or chrome mandibular advancement device, such a device can become a tremendous relief for you or your partner due to alleviation of snoring and reduction of day-time sleepiness.



It is very important that you inform your doctor about your sleep condition and that you have been provided with a mandibular advancement device to assist sleep disordered breathing.

Are there any risks or drawbacks to using a mandibular advancement device?

For some patients, a mandibular advancement device becomes a crux during sleeping to alleviate the effects of snoring. The appliance can assist overcome anatomical factors such as a broad-based tongue sitting against tissues draped across the back of your tongue in the so-called 'pharynx'. These tissues are known as the uvula and anterior pillar of fauces and can result in breathing turbulence which causes snoring and can result in wakeful arousals while you try and sleep.

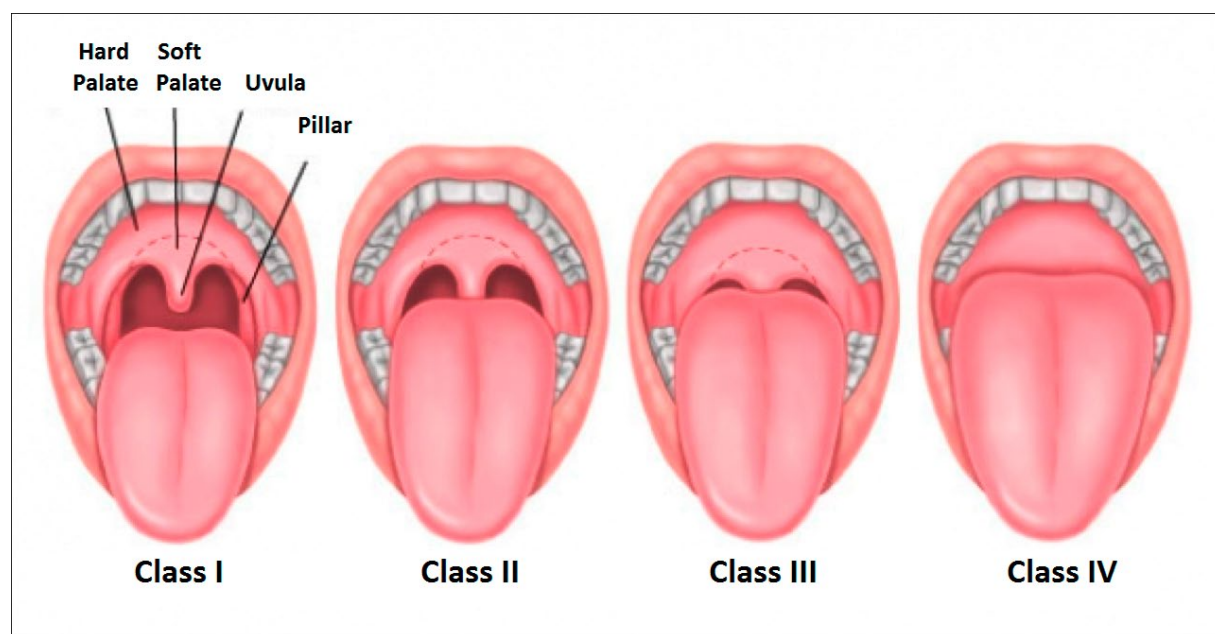
It is possible that you will become dependent on such an appliance. It is very important that this appliance is checked annually by your dentist to ensure that it is not causing any damage to the mouth and gums. Long term wear of such an appliance can cause some tooth movement and changes to the bite. Another complication is temporomandibular joint dysfunction (TMD) and this can manifest as tenderness of muscles of the face and limitation of opening. A very rare long-term complication is elongation of the jaw-joint cartilage and this can result in adverse changes to the bite and pathology of the joints.

The complications described above are very rare indeed and must be pitched against the tremendous benefit to health and well-being that a well-constructed mandibular advancement device can bring.

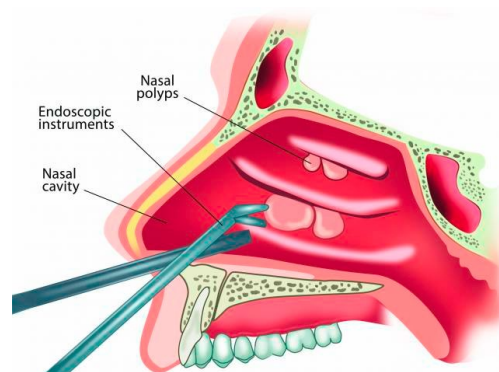
If you have a pre-existing tendency to jaw joint problems, please do inform your dentist so that he/she can make a decision on whether a mandibular advancement device is an appropriate therapy for you.

What are the limitations of using a mandibular advancement device?

Whereas a mandibular advancement device is an excellent therapy for someone suffering from snoring, respiratory physiology is complicated. It is entirely possible that you are suffering from an underlying sleep apnoea that needs further investigation. It is also possible that you may need surgical correction of the soft tissues at the back of the mouth which are contributing to snoring/sleep apnoea. This is due to excessive intimacy of contact between tissues of the soft palate and the base of your tongue.



You may also need surgical correction of the nasal passages due to the presence of nasal polyps which are soft tissue growths which can block the nasal passages.



Sleep deprivation that is caused by arousals from sleep due to moderate to severe sleep apnoea (rather than purely snoring) will NOT be successfully managed with a mandibular advancement device. This condition needs specialist management within a respiratory support and sleep centre (RSSC).

Whereas the dentist will undertake a risk assessment for obstructive sleep apnoea and will inform you about the likelihood of such (including the benefits of seeing a respiratory physician for an overnight sleep study), construction of a mandibular advancement device will incur cost. Despite the remarkable success of such an appliance in managing snoring absolute

guarantees of success cannot be provided in medicine and the risk of failure will need to be borne by the patient.

What if I do no treatment?

Doing nothing is your personal choice. If you snore, you may not enjoy full restorative sleep, and neither will your bed partner. This may affect yours or your partners emotional health and chronic sleep deprivation may affect general health.

Even when health is not affected, a lack of good sleep will cause loss of quality of life. We endorse the use of a mandibular advancement device for snoring and mild obstructive sleep apnoea to minimise adverse effects on quality of life, emotional well-being and systemic health.

Costs for ongoing management

The initial fees quoted are for fabrication and fitting of the mandibular advancement appliance.

You may subsequently require additional appointments for appliance servicing or technical complications in relation to the appliance. These appointments will be charged as a further examination fee after the fabrication fees have been incurred. If any lab fees are incurred in correcting technical complications these are surcharged on top of examination fees. Examination fees will vary dependent on the seniority of the clinician.

Summary of post-operative advice/care after appliance fitting

1. Use a toothbrush and tooth paste to clean the appliance, even with a powered brush
2. Do not use chlorine-based products for chrome appliances as this will result in loss of the passivating chrome layer and a precipitate of chromium chloride will be left on the surface which is impossible to clean
3. You may feel some muscle spasm from several muscle groups (namely distal fibres of temporalis, and lateral pterygoids) which should be self-limiting
4. There is a possibility of remodelling of the jaw joint (due to chronic displacement of the fibrocartilage at the head of the "condyle" – the jaw joint)
5. The dentist will provide a letter to your doctor to explain what we are doing just in case the doctor feels that a sleep study would be appropriate to investigate the possibility of sleep apnoea.
6. We will schedule a call 2 weeks after appliance fitting to ensure that the patient's snoring has reduce/stopped and that there is comfort while wearing the appliance.

I confirm that I have read and understood the information contained within this guide, and I have had the opportunity to ask questions. I feel that I understand the risks, benefits and limitations of the procedures described, and I understand that no promises or guarantees of the proposed outcome can be made. By signing this form, I am providing my explicit consent to render necessary treatment to assist my dental condition.

Name of Patient _____

Date of Birth _____

Patient signature _____ Dated _____

Parent/Guardian/
Legal Representative _____ Dated _____