

Mandibular repositioning appliance for snoring and obstructive sleep apnoea

This information sheet has been given to you to help answer some of the questions you may have about the appliance that has been recommended to treat your snoring and/or sleep apnoea. If you have any questions and concerns, please do not hesitate to speak to the doctor or the dentist caring for you.

Causes of sleep apnoea

Obstructive sleep apnoea (OSA) is caused by partial or complete obstruction of the airway whilst sleeping. This can lead to a drop in oxygen levels in the blood circulating around the body. One of the most common results of this drop in oxygen levels is disturbed sleep, which can in turn result in excessive daytime sleepiness (EDS). Habitual snoring may indicate that you are developing OSA. It may also be a symptom of underlying OSA.

There are a number of factors that put you at risk of partial or complete obstruction of the airways. Some of the key risk factors are outlined below.

- **Being overweight** – This is a major risk factor because excessive body fat increases the bulk of soft tissue in the neck, which can place strain on the throat muscles. Excess stomach fat can also lead to breathing difficulties, which can make OSA worse. A body mass index (BMI) score above 25 puts you in a higher risk category of developing OSA.
- **Oedema** – At night when you lie down, oedema (an excessive build-up of fluid in the body's tissues, often causing swelling in the feet and ankles) can travel to the neck, leading to further strain on the airway muscles.
- **Being male** – It is not clear why, but men are twice as likely to suffer from OSA than women. With age, however, women catch up, especially when they reach the menopause.
- **Having a large neck** – a man with a neck size of 43cm (17 inches) and a woman a neck size of 41cm (16 inches) is at an increased risk of developing OSA.
- **Certain anatomical features** – An unusually narrow airway, unusually large tonsils or tongue, or having a small lower jaw that holds the tongue backwards increases the risk of partial or complete airway blockage.
- **Alcohol** – Snoring and OSA are made worse mainly due to the relaxing effect of alcohol on the throat muscles.
- **Smoking** – Simply put, smoking irritates your throat and airway. Smokers are three times more likely to develop snoring and OSA.
- **Family history** – Some people have a genetic predisposition to developing snoring and OSA.
- **Diabetes** – Recent research shows that type 2 diabetes sufferers have an increased risk of developing OSA. It is also true that having OSA increases your risk of developing type 2 diabetes and other metabolic disorders.
- **Allergies** – Any event that leads to nasal or airway congestion can lead to an increased risk of snoring and OSA. This is due to the swelling of nasal and airway lining.
- **Taking medicines that have a sedative effect** – Sleeping tablets, tranquillisers and some other medicines can have a relaxing effect on the airway muscles, making the passage of air more difficult.

What is a mandibular repositioning appliance?

A mandibular repositioning appliance is a dental appliance, similar to a gum shield, which is worn in your mouth while you sleep. It is also known as a mandibular advancement splint, mandibular advancement device, oral appliance or dental device. Wearing the device holds the airway open whilst you are sleeping, so that breathing becomes easier and oxygen levels in the blood are normalised. The appliance should also control your snoring.

Why should I have a mandibular repositioning appliance?

These oral appliances are used for the treatment of habitual snoring, mild to moderate OSA, and for those who are unable to tolerate continuous positive airway pressure (breathing apparatus which delivers a continuous supply of compressed air to assist with your breathing while you are asleep). The appliance is custom made for you, in order to provide relief from your symptoms.

What are the risks?

There are a number of side effects associated with this form of treatment:

- dry mouth
- excessive salivation
- pain in the muscles of the face and jaw
- gum irritation
- gagging
- tenderness of teeth
- tenderness of jaw joint (TMJ)
- minor orthodontic movement of the teeth with change in the way teeth meet (bite).

The majority of side effects diminish or resolve with time. Please note that every individual responds differently to this form of treatment. If you are worried or uncertain about anything, you should contact your dentist for guidance or reassurance.

In order to minimise or avoid any of the side effects listed above, it is important that you take good care of your teeth and gums with regular visits to your dentist.

It is essential that you have a complete dental assessment before being measured for this appliance. A dental assessment will minimise or prevent any complications in the future. If you are not 'dentally fit' the dentist may refuse to provide you with an appliance.

Why is a dental assessment essential?

To be able to wear an oral appliance successfully, it is important that your mouth is free of dental disease, tooth decay and gum disease. If your teeth and gums are not healthy, wearing the appliance will lead to worsening of the problem with eventual loss of teeth. Most appliances require you to have a minimum number of healthy teeth. This is so that the device has a surface area that is large enough to hold on to while you sleep.

Note: It is difficult to make an appliance for those people who wear complete upper and lower dentures, and oral appliances are not recommended for people with epilepsy that is not well controlled.

How do I get a mandibular repositioning appliance?

There are several ways to obtain an oral appliance. You can contact your general dental practitioner for advice. He/she may be able to provide a suitable appliance if they are suitably trained. Alternatively, you can access dentists with a special interest in mandibular repositioning at www.dentalsleepmed.org.uk. You may be given a choice of appliances, as there are several available. The choice of appliance depends on your personal preference and the dentist's experience in providing one.

Your usual dentist can make a referral to St Thomas' Dental Centre at the following address:

**St Thomas' Dental Centre
New Patient Referral Unit
Tower Wing, Floor 25
Guy's Hospital
London, SE1 9RT**

Please be aware that the clinic is not able to provide routine dental care and you may be limited to a particular type of appliance.

Note: We do not recommend appliances that are sold over the internet or at retail outlets. These devices usually have poor fit and sometimes result in severe complications.

How do I benefit from this form of treatment?

The oral appliance is designed to alleviate your symptoms. In order to achieve maximum benefit the appliance must be worn whenever you sleep, day or night.

What should I do if I forget to wear the device?

If snoring is the main problem then you will snore if you forget to wear the device. If you suffer from OSA, you may feel tired and sleepy during the next day. This is why the appliance needs to be worn regularly to achieve maximum benefit.

Is there anything else I need to know about wearing the device?

The device is made of a material that is safe and should not cause any problems when worn. It should not be worn when you are eating, as it is fragile and designed specifically to be worn during sleep. Depending on the type of appliance prescribed for you, you may not be able to drink whilst you are wearing it. Mouth breathing is also not possible with certain types of device but you should ask your treating dentist if you are not sure.

How do I care for my device?

The device is worn for a number of hours while you are asleep. This makes it even more important that good oral hygiene is maintained in order to avoid any form of dental disease.

You will be provided with full instructions on how to care for your appliance when it is fitted. The appliance must be cleaned thoroughly and regularly as per these instructions, and it should be clean when inserted in the mouth. You should also clean your mouth and brush your teeth before wearing the device. When you wake up, the device should be removed and cleaned with a little brush and soap/toothpaste. It should then be soaked in an appliance cleaner, such as Ritebrite©. Rinse thoroughly with clean water before you use it again.

Where can I get a replacement if I damage or lose the device?

The devices are made to individual prescription, so in the case of loss or damage, you should contact the dentist who provided the device.

Will I have a follow-up appointment?

If your oral appliance is fitted at St Thomas' Hospital Dental Centre, no routine dental follow-up is provided, however, the sleep disorders unit may provide a follow-up in certain cases. If the appliance is provided by your dentist, any follow-up appointments will be requested at his/her discretion.

Appointments at King's

We have teamed up with King's College Hospital in a partnership known as King's Health Partners Academic Health Sciences Centre. We are working together to give our patients the best possible care, so you might find we invite you for appointments at King's. To make sure everyone you meet always has the most up-to-date information about your health, we may share information about you between the hospitals.

Contact us

If you have any questions or concerns about your device or anything you have read in this leaflet, please contact either the **sleep disorders centre** on **020 7188 3430** (Monday to Friday, 9am to 5pm), or **St Thomas' Dental Centre** on **020 7188 8009** (Monday to Friday, 9am to 5pm).

If your oral device was provided by your dentist, you may wish to speak to him/her instead.

Useful sources of information

The British Society of Dental Sleep Medicine

w: www.dentalsleepmed.org.uk

Pharmacy medicines helpline

For information about any medicines that you have been prescribed at Guy's and St Thomas' hospitals, you can speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Patient Advice and Liaison Service (PALS)

To make comments or raise concerns about the Trust's services, please contact PALS. Ask a member of staff to direct you to the PALS office or:

e: 020 7188 8801 at St Thomas'

t: 020 7188 8803 at Guy's

e: pals@gstt.nhs.uk

Knowledge & Information Centre (KIC)

For more information about health conditions, support groups and local services, or to search the internet and send emails, please visit the KIC on the Ground Floor, North Wing, St Thomas' Hospital.

t: 020 7188 3416

Language support services

If you need an interpreter or information about your care in a different language or format, please get in touch using the following contact details.

t: 020 7188 8815 **fax:** 020 7188 5953

NHS Direct

Offers health information and advice from specially trained nurses over the phone 24 hours a day.

t: 0845 4647 **w:** www.nhsdirect.nhs.uk

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk, particularly pages on sleep apnoea.

Become a member of your local hospitals, and help shape our future

Membership is free and it is completely up to you how much you get involved. To become a member of our Foundation Trust, you need to be 18 years of age or over, live in Lambeth, Southwark, Lewisham, Wandsworth or Westminster or have been a patient at either hospital in the last five years. To join:

t: 0848 143 4017 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk

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