

Your patient journey & consent for care at Snoring SolutionsNI

What causes sleep apnoea and snoring?

Snoring and Obstructive Sleep Apnoea (OSA) are forms of Sleep Disordered Breathing which occur when your breathing is not healthy when you sleep. They are commonly caused by a narrowing of your airway and poor control of breathing.

When muscle tone relaxes during sleep the flexible upper part of the airway may vibrate which causes the noise we all recognise as snoring.

Partial collapse of the airway causes an increase in effort to breathe which can then progress to complete closure causing dangerous pauses in breathing called apnoeas.

These apnoeas, partial obstructions and even severe snoring cause partial brain awakenings during sleep so that muscle tone can be restored and breathing can re start.

These brain arousals are very damaging and are associated with many major medical issues such as:

- heart attack
- stroke
- diabetes
- excessive daytime sleepiness, which can cause you to be moody and increases your risks of having accidents.

Snoring and apnoea are more common in men and in post menopausal women. Snoring and apnoea increase in severity as we get older and put on more weight.

Not all snorers have apnoea but virtually all patients suffering from apnoea will snore.

Why snoring is a problem

Snoring is a major factor in many cases of relationship breakdown as it disturbs the sleep of both you and your partner.

When the conditions are resolved some patients report increased energy levels and a decrease in daytime sleepiness. In cases of OSA, many medical risks such as heart attack, stroke and diabetes are reduced and both life quality and life expectancy are increased.

Can dental appliances help in all cases?

The effectiveness of dental appliances depends on several factors:

- the severity of the sleep disorder
- your weight
- shape and position of the jaws and teeth
- airway anatomy
- how well the appliance is made which will effect how well it can be tolerated.

Additionally, an adequate number of healthy teeth to support the device is essential.

The patient's medical history, regular medication, cigarette and alcohol consumption, ability to breathe easily through the nose and even habitual sleep position may also be of relevance.

The appliances are generally prescribed for non apnoeic snoring and mild – moderate OSA. However they can also be used to treat moderate – severe OSA when a patient can't tolerate continuous positive airway pressure (CPAP) or surgery in some cases. (please refer to our website for more details on CPAP).

The use of dental appliances is simple, non invasive, reversible and cost effective and may be the basis of definitive life long treatment.

Dental appliances will only be provided after detailed examination of teeth, gums and jaw joints and after a screening for the signs that might predict OSA have been carried out.

At Snoring SolutionsNI we use the most modern digital technology both during our patient clinics and to make our oral appliances. This allows us to use techniques and materials that product less bulky appliances which are better tolerated and are proven to be more effective.

Pre-Consultation Questionnaires and Virtual Chats

Our aim is no manage your care as efficiently as possible within recommended guidelines. We are pleased to provide an initial complimentary screening for you by assessing the Pre-Consultation questionnaire that is available on our website www.snoringsolutionsni.com

We will also require you to complete the Medical History form to give us valuable information about your health that may be a contributing factor to your complaints during sleep or daytime tiredness.

These completed forms can be returned by post or emailed to info@snoringsolutionsni.com

If we require further initial clarification we will contact you to arrange a phone call or a complimentary virtual Zoom chat.

If appropriate your screening will continue when we offer a Home Sleep Test.

The assessment of the pre-consultation questionnaires and the Sleep Test can all be organised remotely for your convenience.

If you have been referred by a Respiratory or ENT consultant you may already have had a recent sleep test carried out.

Home Sleep Studies

As dentists we don't use sleep studies to make a diagnosis as this is solely the remit of medical colleagues. Our sleep studies are used to:

- screen for the severity of your sleep disordered breathing (Snoring or OSA) and ensure you are being managed under the strict guidelines that we follow with your best interests being our priority
- indicate when referral to a Respiratory or ENT consultant is required
- ensure the dental appliances are working effectively.

We currently use 2 types of Home Sleep Test monitor. Both are recognised by the leading global Respiratory company ResMed and validated by the American Academy of Sleep Medicine as Type 3 Sleep Tests:

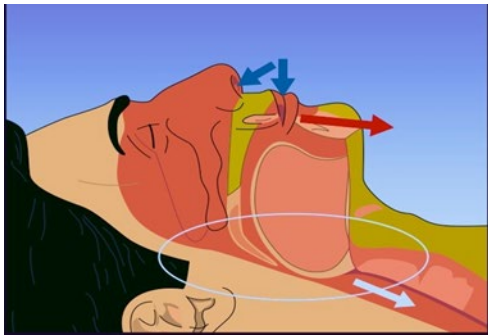
1. **Ecotosense Night Owl:** we use this to screen if you have signs of Sleep Apnoea. We can also detect if your breathing is resulting in episodes when the oxygen in your blood decreases below normal range. The results from these tests are most important to help us assess if we can provide care or if referral to a medical colleague is advised. We also use this monitor to help verify your appliance is having a successful outcome.

Each Night Owl monitor has up to 10 over night sleep reports available on each disposable monitor device and the modern technology of this device allows us to set up and read the results remotely.

2. **ResMed ApneaLink:** is sometimes used if a more detailed report is required, especially if we are referring to a Respiratory Consultant for care or advice. This monitor needs to be returned after each night used to allow the recorded data to be read.

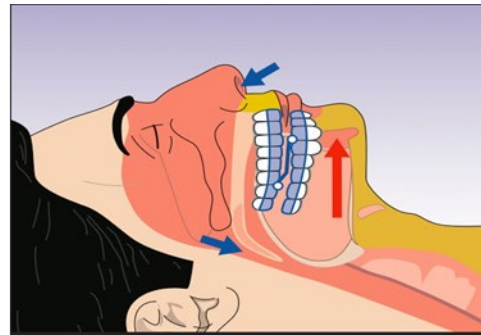
Video links on how to use these monitors are available on our website.

How do dental appliances work?



The problem

The relaxed tongue falls back and the structure of the upper airway collapses, obstructing the flow of air to the lungs



The solution

The dental appliance advances the lower jaw pulling the relaxed tongue forward and opening the pharynx allowing air to pass freely into the lungs

Blue arrows – air in.

White arrow – obstructed airflow into lungs.

White circle – area of obstruction

Dental appliances help maintain an open airway by posturing the lower jaw forward and help prevent the tongue falling to the back of the throat when muscles are relaxed during sleep. The appliance prescribed will be custom made to fit your mouth and will advance the lower jaw with a minimal increase in mouth opening.

Breathing becomes easier, the vibration which causes the snoring noise is reduced or eliminated and the number of times that the airway collapses and blocks during sleep is reduced. The damaging brain arousals seen during sleep associated with OSA or breath holding episodes are reduced.

How successful are the oral appliances?

Success rates vary depending on several factors but in general, successful management of non apnoeic snoring is very high. Recent evidence shows that these oral devices can be as effective as other treatment such as CPAP and more effective than soft tissue surgery alone. As with all options of management there are no guarantees this therapy will be successful for every individual.

Research shows that patient acceptance of this treatment is high (75-100%) at beginning of treatment and that 80% of those initially successfully treated also experienced good long term control of severe OSA.

Our most commonly provided appliances can be seen on our website www.snoringsolutionsni.com

Those judged to be suitable for your individual condition and oral status will be demonstrated so that you can have a valuable input to selecting your appliance.

Obviously the costs of the appliances vary and this too will be discussed prior to proceeding with treatment. It doesn't necessarily follow that the more expensive the appliance, the more effective the appliance will be for you. We have an immense experience to help select the appliance that is best suited to you and your lifestyle.....the opinion of your sleep partner is always considered as well.

There are many problems with patients either electing to self diagnose and self treat their own snoring problem using an over the counter 'non custom' device (such devices being very similar to 'boil and bite' gum shield appliances) and/or non dentally qualified personnel recommending the purchase and use of such devices.

These over the counter, 'non custom' devices may often prove relatively ineffective (mainly because they are often uncomfortable and are poorly retained) and in some cases damaging to the oral structures. These devices are not used or advised under any circumstances. There are times when an oral appliances are inappropriate and we have the experience and network of colleagues who we can refer you to if necessary for other management options.

Our priority is to manage you successfully and ethicallynot simply to "sell" you an appliance.

Are there any side effects?

Dry mouth, increased salivation, facial / jaw discomfort, temporary bite change on waking have been recorded as short term problems and are insignificant compared to the potential complications of surgery to the back of the throat.

Most patients adapt to the dental appliance in a few weeks and these minor problems soon disappear.

In the long-term, jaw joint problems and unwanted movement of teeth have been reported. For this reason, it is important that any gum disease and/or untreated dental disease is treated before treatment starts.

Digital video scans taken during your initial consultation record the shape of your teeth and the relationship of the upper and lower jaws. Regular long term follow up review appointments will be organised so that any unwanted changes can be detected and discussed with you at an early stage.

All new patients will be instructed in simple muscle stretch exercises which need to be carried out on removing the device in the morning. Additionally a small 'morning jaw/tooth re aligner' may also be provided. 5 minute use of this re aligner is recommended to try and ensure (as far as possible) that longer term side effects are minimised.

Are the appliances suitable for everyone?

These appliances are not appropriate for patients with

- poorly controlled epilepsy
- poor periodontal (gum) health, especially if teeth are mobile

Patients must have an adequate number of healthy teeth in each arch to support and retain the appliance (usually more than 8 healthy, well distributed teeth per arch is the minimum number required).

However, in some cases, appliances can be made for patients who do not have any upper teeth at all. If patients do not have any lower teeth, then such appliances can only function if at least 2 dental implants can be placed to support and retain the appliance.

Longterm follow up

After fitting the oral appliance you will be reviewed at short intervals until you are happy with your appliance and you have stopped snoring and any apnoea has been suitably controlled. Overnight sleep studies will be repeated to ensure the appliance is effective and to communicate the outcome to your doctor. In cases when this outcome is less than satisfactory we may have to discuss alternative treatment options with your doctor.

We will recall you for reviews and you should accept that longterm monitoring is part of current recommended guidelines.

Professional fees

Initial assessment of pre-consultation questionnaires: no charge / complimentary

Home Sleep Test

Ecotosense Night Owl : (disposable with up to 10 overnight reports available) £95

ResMed ApneaLink Sleep report (1 night) £75

(the sleep tests can be reported by a trained Respiratory Consultant if required for an additional fee)

Appliance Fees

Fees for the individual appliances include the initial reviews and are available on the website www.snoringsolutionsni.com

Payment terms for the appliances are 50% when ordered and the balance payable when fitted.

Finance agreements are also available to help spread the costs.

In the rare occasion if you wish to return the appliance within 3 months of it being initially fitted, we are pleased to refund 10% of the initial appliance fee in lieu of time that would have been provided for future review appointments.

Consent

When you consent for treatment this includes consent for all screening questionnaires, clinical assessments and sleep studies to be shared with your general doctor and hospital consultants to appropriately manage your care safely and to ensure the best possible outcome.

(Consent protocol based on the protocol courtesy of Dr Roy Dookun)

Our experience providing your care

Dr Paul Reaney BDS, MFGDP(UK), DPDS, Dip PCOrth RCS(Eng), MDTFEd RCS(Edin)



Paul is a Dentist with Special Interest in Orthodontics and has successfully incorporated a Dental Sleep Medicine Clinic, Snoring SolutionsNI, within his general practice.

He gained accreditation by examination to the European Academy of Dental Sleep Medicine and is currently a Committee member of the Irish Society of Dental Sleep Medicine.

His implementation of digital technology in Dental Sleep Medicine and his workflow have been recognised by winning the:

- Best Digital Practice at the 2019 International Digital Dentistry Awards
- Winner of the Best High Technology Practice category in the 2020 Irish Dental Awards.
- Winner of the Best Dental Practice category (Scotland & Northern Ireland) in the UK Private Dentistry Awards 2020
- Highly Commended for Best Patient Care (Scotland & Northern Ireland) in the UK Private Dentistry Awards 2020

Paul has recently been appointed by ResMed to their Narval Advisory Board.