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## TREATMENT OF SLEEP DISORDERED BREATHING

This relatively new field of therapy has opened to the **dental team** the opportunity to help correct a medical problem of **sleep-related breathing disorders (SRBD)**. This ranges from benign snoring to severe obstructive sleep apnoea.

SRBD is a serious condition as there is an increased mortality rate amongst those suffering with the condition. It is imperative that the dental fraternity engages with the medical profession to establish a multidisciplinary approach in the management of SRBD

THE role of the dentist or **orthodontist** in the treatment of SRBD is more important than ever before, especially as the demand for sleep medicine services continues to grow. In order to be able to fulfil a role in the treatment of SRBD, and orthodontists should understand the basics of sleep and its architecture, features and classification of the main sleep disorders, in order to assist with screening and managing those at risk.

Snoring is a primary symptom of the serious medical condition of obstructive sleep apnoea (OSA). It is estimated that up to 50% of asymptomatic snorers demonstrate some degree of apnoea. There is evidence snoring is also linked with hypertension, insulin resistant diabetes and carotid artery atherosclerosis

Obstructive sleep apnoea results in serious sleep disruption. Daytime sleepiness is of concern as it can lead to accidents at work, at home, and when driving. It has been estimated that drivers falling asleep cause 20% of accidents on motorways and monotonous stretches of roads

There are two different types of apnoea

1. obstructive sleep apnoea (OSA)
2. central sleep apnoea (CSA)

OSA with snoring is the more common of the two types caused by total or partial blockage of the airway. A multidisciplinary team with a physician, an ENT surgeon and a dentist is the most efficient method of management.

### **Treatment options**

It is vital from a dental and medical perspective that anyone suspected of suffering from OSA should be properly assessed.

1. Continuous Positive Airway Pressure (CPAP) is regarded as the gold standard treatment for severe OSA
2. **Surgery**; this may involve maxilla-mandibular advancement as well as a variety of soft tissue procedures.
3. **Mandibular repositioning appliances (MRAs)** and are primarily indicated for the treatment of snoring and mild to moderate OSA

Suitably trained professionals and technicians with appropriate knowledge can play a key role. **Orthodontists** are especially trained in the use of functional appliances to reposition the lower jaw and are familiar with the long-term dento-alveolar and TMJ changes. MRAs are similar to functional appliances.



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Although MRAs are not as efficient as CPAP, they have been shown to be almost as effective in the treatment of OSA and in some cases better due to their higher compliance level.

MRAs are easy to wear custom made intra-oral appliances worn in the mouth and work by holding the lower jaw and tongue forward during sleep. They consist of upper and lower “aligners” (similar to sports gum guards) connected together to hold the lower jaw in a protrusive position. This is similar to functional appliances used in orthodontics.

MRAs impose significant forces to the teeth and jaw joints and the dentist or orthodontist has to be satisfied that these structures are sound and able to withstand these forces. Side effects of treatment may include excess salivation (sometimes a dry mouth), jaw joint ache and tooth sensitivity. These are short-term side effects and usually disappear once you become accustomed to the appliance. Evidence of long-term side effects include minor tooth movements and bite changes. These side effects must be balanced against the benefits of treatment. Most patients do not find these side effects sufficiently intrusive to discontinue treatment.

MRAs enhance the quality of life of those suffering from sleep disordered breathing and should where appropriate be covered by medical aids.

At present as far as I am aware there are no specific dental codes for the treatment of SRBD. Certain medical aids pay towards the MRAs, while others do not

I would like clarity on codes to be used in the treatment of SRBD. In the past I have used codes related to functional appliances, but this has at times been refused as functional appliances are only used for growing children.

Yours sincerely  
JE

#### Links

**Understanding Sleep Disordered Breathing:** <https://www.youtube.com/watch?v=-gie2dhqP2c>

British Society of Dental Sleep medicine: <http://www.dentalsleepmed.org.uk/>

American Academy of dental Sleep medicine: <http://www.aadsm.org/>



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American Association of Orthodontist  
Founded May 1900