

## Is an Oral Appliance the Right Option for You?



Oral appliances are one of the options that you can use to treat mild or moderate obstructive sleep apnea (OSA), as well as snoring and bruxism (tooth grinding). They are also called Mandibular Advancement Splints (MAS) or Devices (MAD).

When used to treat OSA, they are worn intraorally at night in order to advance the lower jaw thus reducing the collapsibility of the upper airway. They are more readily acceptable for many and there is demonstrated success with patients' compliance in terms of regular, consistent use.



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# Oral Appliances

for obstructive sleep  
apnea & snoring



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## HOW DO ORAL APPLIANCES WORK?

An oral appliance (OA) is a sophisticated device with upper and lower dental parts that work as a team, stabilising your jaw in a slightly forward position while you are asleep. The forward dimension is enough to open your throat and improve your airway and avoid obstruction and reduce noise (snoring).

## IN WHOM DO THEY WORK?

As with all treatments, some people respond better than others. The oral appliance will work best if you have:

- Mild to moderate obstructive sleep apnea although severe patients can also have treatment
- Positional dependant obstructive sleep apnea (improves while side sleeping)
- Weight in the non-obese range (general guideline BMI limit is 35)
- Female with smaller neck circumference and younger age<sup>1</sup>
- Short square facial profile or condensed lower facial height

## HOW WELL DO THEY WORK COMPARED TO CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)?

Although efficacious, CPAP effectiveness is often limited by low usage. Current guidelines recommend that oral appliances should be offered to patients with mild to moderate obstructive sleep apnoea syndrome and to those with more severe disease who are not able to tolerate CPAP or have declined its use.<sup>2</sup>

OAs and CPAP yield similar effects on cardiovascular health but there is increased preference for and usage of oral appliances.<sup>3</sup> An updated meta-analysis showed that even though CPAP can better decrease the severity of OSA, more patients opt for an OA

<sup>1</sup> Eur Respir Rev. 2019 Sep 25;28(153):190083. doi: 10.1183/16000617.0083-2019. PMID: 31554705. <sup>2</sup> J Clin Sleep Med. 2015 Jul 15;11(7):773-827. doi: 10.5664/jcsm.4858. PMID: 26094920; PMCID: PMC4481062. <sup>3</sup> Am. J. Respir. Crit. 2013 Apr 15;87(8):879-87.

which shows better results in severe patients, especially with adjustable appliances.<sup>4</sup>

## WHAT ARE THE SIDE EFFECTS OF ORAL APPLIANCES?

Most oral appliances require a period of adaptation of a few weeks to a month. During this time, transient dental side effects of excess salivation, dry mouth, tooth discomfort or mild jaw stiffness may occur and usually pass within a few hours in the morning and eventually dissipate with time. Some people experience nothing at all. Smaller profile devices have become more sophisticated.

In the long term, it is important to return for an annual review to have your occlusion (bite) checked as well as jaw joint function. In some patients, tooth movement or bite changes may be experienced and instructions of jaw exercises and or a bite template can be provided to mitigate this risk.<sup>5</sup>

## HOW CAN I GET ONE? WHAT IS INVOLVED?

Your GP can refer you to a sleep specialist to determine if you have OSA. In many cases this will involve a sleep study. If you have had an existing sleep study and have not been able to comply with CPAP, your GP can refer you directly to our dentist who can take a 3D digital image and construct the device. The device will then be fitted, checked and reviewed.



<sup>4</sup> Cranio. 2019 Nov; 37(6):347-364. doi: 10.1080/08869634.2018.1475278. Epub 2018 May 24. PMID: 29793390. <sup>5</sup> J Clin Sleep Med. 2020 May 15;16(5):835. doi: 10.5664/jcsm.8394. Epub 2020 Feb 24. PMID: 32105210; PMCID: PMC7849794.

## DOES IT NEED TO BE SPECIFICALLY FITTED OR IS THERE A “ONE SIZE FITS ALL”?

Some devices are available over-the-counter or via the internet. Generally these are considered inferior due to not being customised or adjustable and result in poorer fit, comfort and outcome. Not all devices are created as equal; some have unnecessary features while others are bespoke.

## WHAT MAINTENANCE IS REQUIRED?

It is critical that you maintain your oral hygiene with regular visits to your general dentist. Our devices are constructed of the highest quality patented materials passing Australian standards. Specific cleaning agent and instructions will be provided. All devices come with a 3-year warranty against breakage and generally have no ongoing cost. Most last 6-8 years.

## I HAVE ONE BUT I’M NOT SURE IT’S WORKING, WHAT SHOULD I DO?

If you suffer persistent symptoms of tiredness or snoring while using your device you should seek review with either your physician or doctor or dentist. Occasionally, devices can be adjusted further and become more effective. It is a usual protocol to have a sleep study with the device in place to test efficacy. Lifestyle and dietary changes can alter the treatment response over time. A broken or worn device will cause jaw issues and should be replaced.

## WHAT IS THE COST INVOLVED?

In addition to the appliance, the dentist will need to examine you and take certain jaw measurements and digital scans. Our fee is a package and includes follow up care and review appointments and all reporting and correspondence back to your referring Doctors. It is important that you have follow up and are confident in the use of your device. Oral appliances compare favourably to CPAP. Our dentist will provide full financial consent to assist you further.

To find out more go to [www.woolcock.org.au/clinic](http://www.woolcock.org.au/clinic).