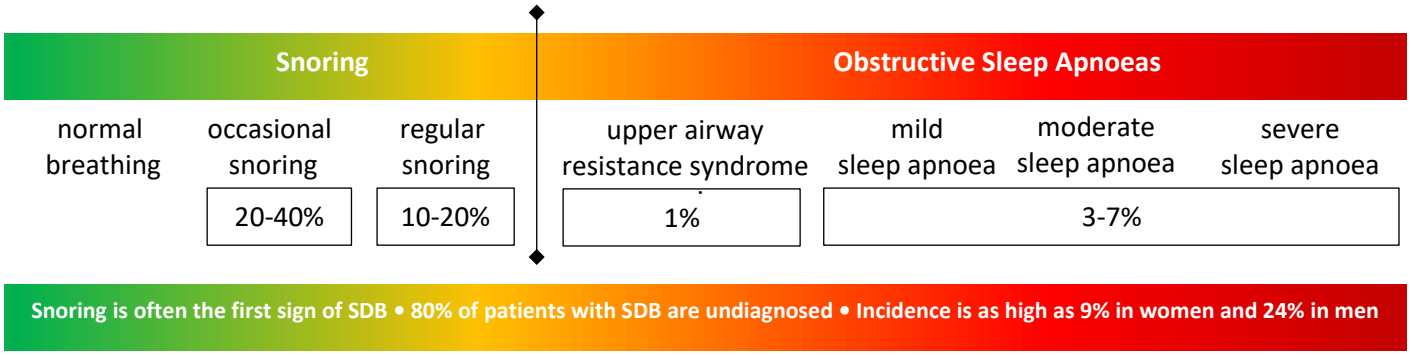
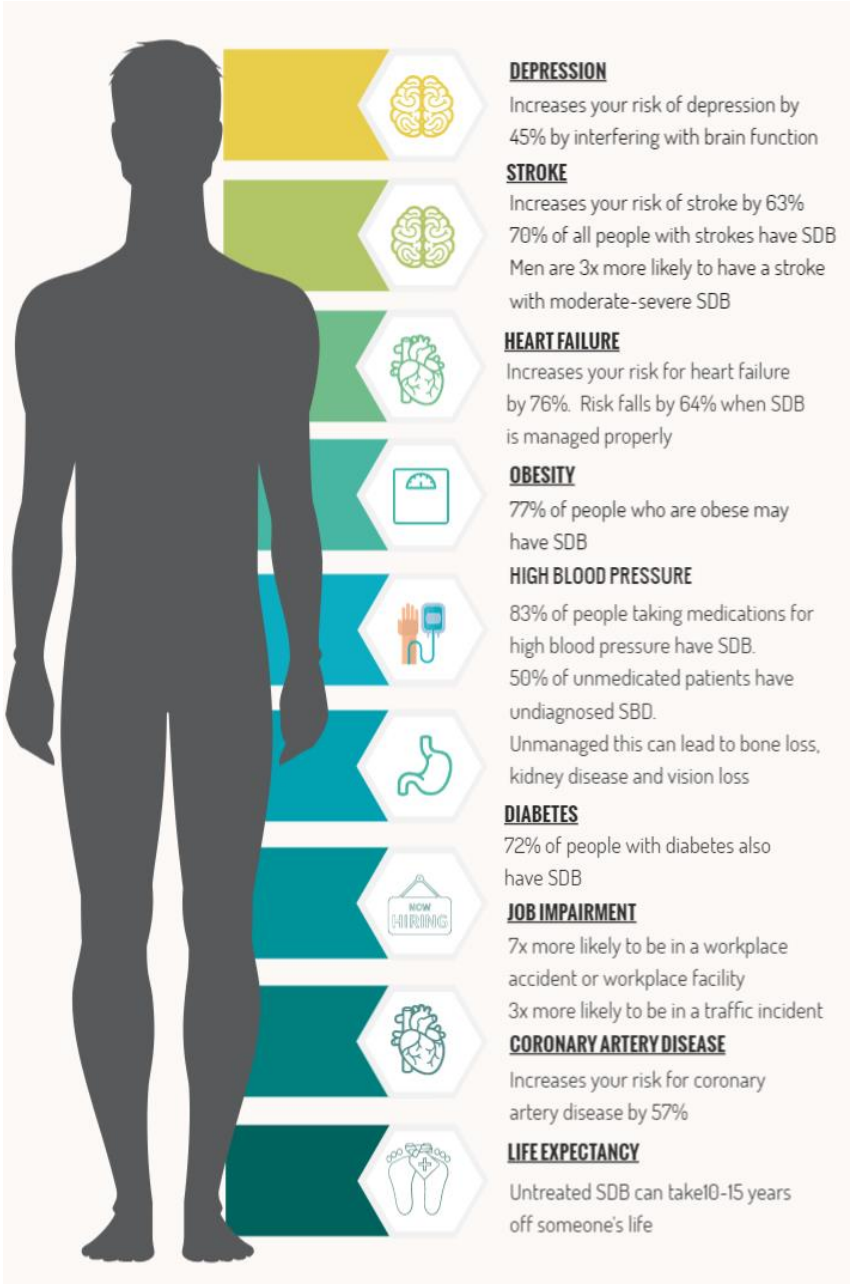
Sleep Disordered Breathing in Adults

Sleep Disordered Breathing (SDB) is a big deal. SDS is estimated to affect up to 32% of the population yet 80% of people with SDB remain undiagnosed. Furthermore, about half of all people who grind their teeth during sleep do so because of SDB. SDB goes undiagnosed so often because it is a continuum of disease ranging from occasional snoring to fully obstructive sleep apnoea. Undiagnosed SDB is a big deal because it not only affects your quality of life but can take a massive 10-15 years off your life



Snoring is often the first sign of SDB • 80% of patients with SDB are undiagnosed • Incidence is as high as 9% in women and 24% in men



DEPRESSION
Increases your risk of depression by 45% by interfering with brain function

STROKE
Increases your risk of stroke by 63%
70% of all people with strokes have SDB
Men are 3x more likely to have a stroke with moderate-severe SDB

HEART FAILURE
Increases your risk for heart failure by 76%. Risk falls by 64% when SDB is managed properly

OBESITY
77% of people who are obese may have SDB

HIGH BLOOD PRESSURE
83% of people taking medications for high blood pressure have SDB.
50% of unmedicated patients have undiagnosed SBD.
Unmanaged this can lead to bone loss, kidney disease and vision loss

DIABETES
72% of people with diabetes also have SDB

JOB IMPAIRMENT
7x more likely to be in a workplace accident or workplace facility
3x more likely to be in a traffic incident

CORONARY ARTERY DISEASE
Increases your risk for coronary artery disease by 57%

LIFE EXPECTANCY
Untreated SDB can take10-15 years off someone's life

mild to moderate SDB can be treated with oral orthotics and is more comfortable and less intrusive than CPAP

severe SDB is best treated with CPAP unless CPAP cannot be tolerated

other treatments include lifestyle modifications, diet, oral myology, good sleep hygiene habits and surgery

we make smiles

Dentists and Sleep Disordered Breathing

How is SDB diagnosed?

SDB needs a team of people. It is a medical diagnosis with medical management and is diagnosed by trained sleep physicians using a sleep study. Dentist plays two important roles. Dentists are often the first to suspect and diagnose SDB because signs and symptoms (such as tooth grinding) show in the mouth, we directly look at the airways when patients are lying down in dental chairs (visibility of the nose and mouth) and we take imaging that visualises and measures airway space (CBCT radiographic imaging). Dentists are also involved in treating SDB with oral orthotics for those with mild-moderate sleep apnoea and those who are unable to tolerate a CPAP machine. We also liaise with your sleep apnoea team including your sleep physician, GP, dietitian and any other health professionals involved in your treatment. We will also help manage any damage that may have occurred to your teeth from undiagnosed SDB such as bruxism and tooth wear.

What is an oral sleep orthotic?

Oral orthotics are custom fitted oral mouthpieces that bring the lower jaw forward and keep the airways open during sleep. We Make Smiles provides appliances which are digitally designed and laser 3D printed from nylon using a 3D scan of your teeth. Nylon splints are thinner than acrylic oral orthotics and are tolerated well by people with jaw problems and temporomandibular disorder. Our oral orthotics also use negative pressure to reposition the tongue and assist in retraining nose breathing habits during wakefulness.

How do oral sleep orthotics work?

Sleep orthotics repositions the lower jaw forward. We Make Smiles uses oral orthotics with patented fin technology which moves the hyoid bone (located at the base of the tongue) forward, allowing the airway to remain open during sleep. Patented fin technology allows for the easy adjustment of the lower jaw position where you need it to find a position that is far enough forward to keep your airways open but not so far forward that it causes jaw pain.

Our orthotics are supported by Aer Shield, which uses negative pressure to hold the tongue in the roof of the mouth. Holding the tongue to the roof of the mouth helps the muscles of the throat and the tongue to keep the airway clear while you sleep. It also helps encourage nose breathing during the day because as a low tongue posture not only obstructs the airway but hampers nasal breathing and increases tonicity in the jaw and face muscles needed to stabilise the jaw at rest and in function.

What does the process for getting an oral sleep orthotic involve?

Sleep orthotics can only be prescribed for people with diagnosed sleep apnoea. If we suspect you may have an undiagnosed sleep apnoea during your dental appointment, we will take a 3D scan of your airways (CBCT) to measure your airway and look for obstructions and organise for a sleep study with a sleep physician to confirm the diagnosis.

Once sleep apnoea is confirmed, we will explain the results of your sleep study and CBCT and work with your GP and sleep physician to get the best treatment for you. This might involve modifying your lifestyle factors, changing your diet or sleep hygiene practices, undertaking oral myology, seeing an ENT, trialling a CPAP machine or making an oral appliance. If your sleep physician agrees an oral orthotic is a suitable treatment for your SDB, we will take a 3D scan of your teeth and find the best position for the orthotic to hold your jaw during sleep.

Once the orthotic is made and fitted, we will monitor you over the following year to make sure your orthotic is working and keeping your airways open while you sleep. Sometimes, this involves a follow-up sleep study or CBCT while wearing your oral orthotic. Some people experience changes in the way their teeth come together when they wear an oral orthotic. We will track this closely over the first twelve months and make any adjustments necessary.

How long do oral sleep orthotics work?

If looked after well, your oral orthotic can last for 20 years or more. However, if you need substantial dental work like teeth removed or crown and bridge work, they may need replacement. Additionally, SDB is a disease continuum. Changes in your lifestyle, weight and health can change the severity of your SDB (for better or for worse) and therefore the effectiveness of your oral orthotic. Oral orthotics must be worn every night. If you stop wearing your orthotic for long periods of time, your teeth might move and your orthotic may not fit.

we make smiles