

Sleep Disorders Unit ST VINCENT'S HOSPITAL

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Information for your Continuous Positive Airway Pressure (CPAP) Titration Study

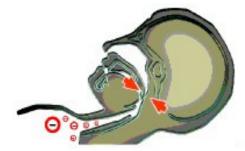
During your diagnostic sleep study we detected a sleep-related breathing disorder called Obstructive Sleep Apnea (OSA). This is a common sleep disorder, affecting approximately 4-8% of the adult population, in which the upper airway at the back of the tongue collapses or obstructs partly or completely while you are sleeping.

WHAT CAUSES OSA?

Your upper airway contains muscles which support the soft, floppy tissues in this area including your tongue and tonsils, your soft palate at the roof of your mouth, and your uvula which hangs from the soft palate at the back of your mouth. The upper airway muscles contract while you breathe in an out to hold your airway open.

When you fall asleep a general 'relaxation' of your muscles occurs resulting in the upper airway muscles having reduced muscle tone or strength.

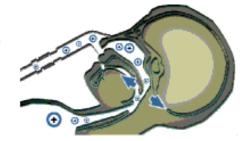
If you have OSA, this means that when you breathe in, your tongue and soft palate are sucked against the back of the throat causing your airway to become narrowed or even completely blocked, preventing air from entering your lungs. These episodes of obstruction last for at least 10 seconds and may occur hundreds of times throughout the night. The combination of a lack of oxygen, frequent arousals and disrupted sleep can place a significant strain on your body and have negative consequences for your health.



CPAP THERAPY

Continuous Positive Airway Pressure (CPAP – pronounced 'see-pap') is currently considered the most effective treatment for obstructive sleep apnoea. CPAP was developed by an Australian Professor, Colin Sullivan, who first used it for treating OSA in the early 1980's. It is now used worldwide.

The CPAP device consists of a small, electrically powered machine which delivers pressurised air to your upper airway. This increased air pressure holds or splints your upper airway open and prevents it from collapsing during sleep. The pressurised air generated by the CPAP device is delivered via a length of tubing to a small mask worn over your nose. The air then passes through your nose and into your throat. The nasal mask is held snug to your face with adjustable straps or headgear, to ensure the pressurised air doesn't escape.



WHY DO I NEED ANOTHER SLEEP STUDY?

A sleep study is the preferred approach for determining the optimal CPAP setting you require to keep your airway open during sleep.



Unlike medications that have fairly standard prescription dosages, CPAP therapy requires an individual patient-specific titration or adjustment.

A **CPAP Titration Study** involves monitoring your sleep pattern, body position, breathing and blood oxygen levels whilst a skilled Sleep Technologist adjusts the air pressure delivered to your airway to eliminate snoring, airway collapse, and the drops in blood oxygen and arousals from sleep that result.

Your pressure needs may vary during the night, depending on sleep stage, body position and other factors so it's important that the CPAP setting we recommend for you is adequate in all situations. Our aim is to provide the lowest pressure possible to achieve an open airway.

I DON'T LIKE THE IDEA OF WEARING A MASK!

Most people feel apprehensive at the idea of wearing a mask while they sleep. It does take some getting used to in the first few weeks of starting CPAP therapy. Most people find, however, that with more CPAP usage they become less aware of the mask on their face and are able to fall asleep and sleep comfortably.

A range of mask systems is available. While a basic nasal mask will be adequate for most people other options such as nasal pillows (which fit directly into your nostrils) or naso-oral masks (that allow you to breathe through your mouth) are also available. Another reason for performing a CPAP Titration Study is to allow you to trial several different mask systems during preparation for your study so that you can select which feels most comfortable to you.

DURING YOUR TITRATION STUDY

To allow us to determine your optimal pressure setting and confirm that CPAP improves your sleep pattern, breathing and blood oxygen level overnight you will again have a number of electrodes and sensors attached (as for your previous diagnostic sleep study) in addition to wearing the CPAP mask. We understand that trying CPAP in a Sleep Unit for the first time, whilst wearing other monitoring equipment, can be a little uncomfortable. Keep in mind that once home in your own bed CPAP will be much easier to use. Our Technologists are there to provide assistance and support during your study so please alert staff if you are experiencing any discomfort or have any concerns during the night.

CPAP PRESCRIPTION & OBTAINING A CPAP MACHINE

Following your CPAP Titration Study you will be given a **CPAP Prescription** outlining your recommended CPAP pressure setting and the mask system used on your study night. CPAP machines for home use can be hired or purchased from a number of CPAP supplier companies (contact details will also be provided following your study). We recommend you hire a CPAP machine for an initial 1-2 month trial period to determine whether you are able to use this treatment successfully at home, and whether you are satisfied with the symptomatic benefit obtained, before committing to purchase of a machine. The CPAP supplier will require your prescription be brought to your appointment when collecting the rental machine. During your initial rental many companies offer a mask exchange program which allows you to swap masks should you experience discomfort and/or leaks.

STARTING CPAP THERAPY – KEYS TO SUCCESS

Treatment success means sleeping better, and getting more enjoyment out of your waking hours.

The correct treatment pressure, a comfortable mask system, and good education often mean the difference between success and failure for CPAP users. It's very important to maintain close contact with your Sleep Physician, Sleep Clinic or CPAP supplier company in the first few months of starting CPAP therapy as most people experience a few technical difficulties which, if not resolved quickly, can stop you from gaining the maximum benefit from your CPAP therapy. A variety of CPAP machine features including heated humidification which warms and moistens the delivered air, pressure relief during exhalation, and pressure delays to allow you to fall asleep more easily, can be activated or added to your CPAP machine to improve comfort.

CPAP DATA DOWNLOADS

Another important reason for attending regular follow-up appointments with your Sleep Physician is to allow them to review therapy data from your CPAP machine which can be downloaded via computer software. This data allows your Physician to determine whether your mask system is sealing effectively during sleep or whether there are pressure leaks which may reduce the air pressure reaching your airway. Persisting episodes of apnea or airway closure on your current pressure setting can also be viewed. This information allows your Physician to make appropriate adjustments to your CPAP machine so that it provides you with optimal treatment and benefit.

HOW LONG DO I HAVE TO USE CPAP?

Currently there is no simple cure for OSA. CPAP is an ongoing treatment which is very effective, but which must be used consistently whenever you are sleeping.

As success rates for other OSA treatment options, such as mandibular advancement devices or upper airway surgery (which you may have already discussed with your Physician) are generally lower compared to CPAP therapy, CPAP is usually the first-line treatment for this type of sleep disordered breathing.

Other measures you can take to improve your OSA and health in general, include maintaining a healthy weight, following the National Guidelines for alcohol consumption (no more than two standard drinks per day) and ceasing smoking.

We recognise that CPAP can be a challenging therapy, but for the majority of patients who start CPAP the benefits obtained in terms of symptomatic improvements and health outcomes far outweigh any initial difficulties.