

# BUYING A CPAP MACHINE

### Your ultimate guide

### Introduction

If you have been diagnosed with obstructive sleep apnea, and your doctor has prescribed a sleep therapy machine, this guide can help you decide what best suit your needs.

A sleep apnea therapy machine delivers pressurised air through a mask while you sleep. The air pressure helps prevent your upper airway from closing. The machine sits beside your bed on the bedside table and connects via a tube to the mask. It may take a bit of getting used to, but if sleep apnea is interfering with your health and enjoyment of life, a sleep apnea therapy machine may help.



Product pictured is a ResMed AirFit<sup>™</sup> P10 nasal pillows mask

# How sleep apnea therapy machines work

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# The parts explained

All the machines comprise of three parts: the **ventilator**, the **tube** (or hose) and the **mask**. Most new machines also incorporate a **humidifier**. With some basic or reconditioned models, you may need to purchase a separate humidifier.

#### The ventilator

The ventilator is a machine that pumps air. There are 3 types of ventilators:



### CPAP (continuous positive airway pressure)

These machines deliver a constant airflow and are known as '**fixed pressure**' machines. These tend to be the most economical positive pressure airway machines. Because these were the first machines to become available, you will hear people refer to all sleep therapy machines as CPAP machines.



### APAP (automatic positive airway pressure)

These machines are also known as automatic CPAP machines. These machines **automatically vary the air pressure** throughout the night in response to your needs to ensure that you receive the lowest pressure you require. This can increase the comfort of your therapy.



#### **Bi-level machines**

They are normally used for people who need a higher pressure for effective treatment of their obstructive sleep apnea. Bi-level machines offer **a lower pressure for breathing out**, making it more comfortable for people who need high pressure to keep their airway open when breathing in.

Pictured devices from left to right: Philips Dreamstation, F&P Icon+, ResMed Lumis<sup>™</sup> 100 VPAP S



#### The mask

Choosing the right mask is very important to the comfort of your therapy. The mask type that best suits you depends greatly on personal needs and preferences. Some things that affect mask comfort are the shape of your face and nose, facial hair, whether or not you're claustrophobic and whether you breathe through your mouth. Each mask has its own benefits, and you should discuss these with your doctor or equipment supplier. CPAP masks fall into 3 main categories: nasal pillows masks, nasal masks and full face masks. A **full face mask** covers the nose and mouth, a **nasal mask** covers the nose, and a **nasal pillows mask** rests at the entrance of your nostrils.

It's important to choose a mask that's comfortable; otherwise you may not want to use it regularly. CPAP Australia recommends getting it professionally fitted, trying on as many masks as you can, talking to other users and seeking out mask reviews online.

Nasal and nasal pillows masks are particularly light and comfortable but if you tend to breathe through your mouth when you sleep, a full face mask may be a better choice.

Masks come in a range of sizes.

Masks and machines are normally cross-compatible, i.e. you can choose a mask from one manufacturer and a machine from another, however, if you switch masks, the settings on your machine may need to be adjusted.

Masks cushions may need to be replaced about every 6 months and then completely every 12 months as the parts become worn and stretched, leading to a poor fit. Using a poorly fitting mask can reduce the effectiveness and comfort of your therapy.



#### The tube

The tube connects the ventilator to the mask. It may be heated or unheated. A heated tube can help prevent moisture from condensing in the mask and also rainout in the tube.

#### The humidifier

The humidifier may be integral to the machine, or, alternatively an optional extra. When filled with water, it adds warmth and moisture to the air that you breathe. Using a humidifier with your machine can reduce dryness and congestion and improve comfort. A humidifier is not essential, but if you don't use one, you may find that breathing dry air from the machine causes you to wake up with a sore throat.





#### Accessories

There are a number of accessories available including chin straps, to prevent your mouth from falling open while you sleep, nasal pads to relieve discomfort across your nose, and mask wipes to help with cleaning your mask.

A portable battery may be a good idea if you like to travel and for back-up power in case of blackouts.

### Comfort features

To make your therapy as comfortable as possible, manufacturers incorporate extra comfort features into some of their models:



### SmartStart<sup>™</sup> (ResMed) or Auto start or EZ-Start (Philips)

With this feature enabled, the machine starts automatically delivering air when it detects you breathing into the mask.

### Ramp and sleep onset detection

These two features can make settling down to sleep more comfortable. Ramp gradually increases the pressure over a period of time, while sleep onset detection, as the name suggests, can tell when you're asleep and will only increase the pressure after you're in the land of nod.



#### Automatic pressure algorithms

These algorithms are designed to adjust the amount of pressure delivered depending on your needs. They can detect when you're actually snoring or when your airway is obstructed and increase the pressure accordingly. In between times, they deliver a lower pressure, which can enhance therapy comfort.



#### Algorithms for women

Obstructive sleep apnea in women is different. <sup>2,3,4</sup> Typically, women take longer to fall asleep. They also have more frequent limitations to their airflow and more frequent arousals during sleep than men.<sup>2,3,4</sup> The ResMed AirSense 10 AutoSet for Her is the only machine currently available that has more sensitive algorithms that are designed to respond to a woman's therapy requirements.

#### Expiratory pressure relief

Machines with this feature offer lower pressure when you breathe out, which can also improve the comfort of therapy.



### Wireless connectivity

Want to see how well your therapy is going? You can, if your machine connects to the internet. By choosing a machine with wireless connectivity you can regularly check your progress using therapy monitoring software – helping you to better understand your treatment and improve your sleep. Some systems also enable your therapist to remotely troubleshoot and adjust your machine if you're having problems.

There are 3 main connectivity systems: **Bluetooth**, **cellular** or **Wi-Fi** and some machines offer a choice. \*



# Travelling with your machine

Being on sleep therapy shouldn't stop you from travelling. Most new machines have a universal power supply that enables you to use them throughout the world, even on an aeroplane. Just remember to pack the right adaptor.

If you're going camping or caravanning, you'll need a converter. Then you can power your machine from a 12V or 24V DC power source in a car, boat, caravan or other vehicle with a suitable battery.

# Why buy locally?

Purchasing the ideal therapy machine and mask is only part of what you need to successfully treat your sleep apnea and enhance your health. Treatment may require ongoing consultation with your GP or specialist. It is important that you receive ongoing advice and support to successfully adapt to treatment and start experiencing results.

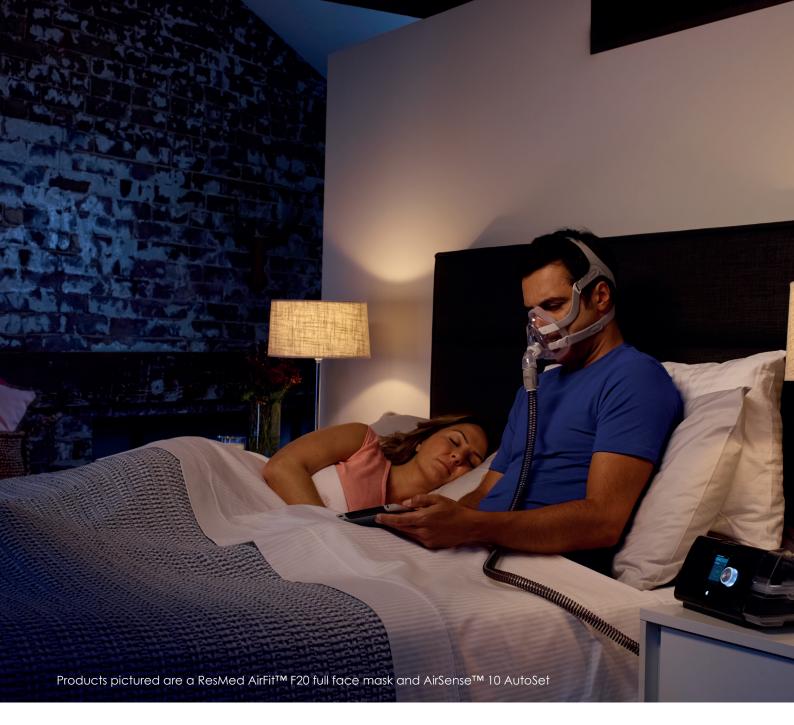
Included in the price you pay for your therapy from CPAP Australia are the following important extras:

- Reliable 'before and after' sales service which covers education and awareness, support, assistance with mask selection, fittings and adjustments, setting up, and trialling new devices and masks for compatibility.
- Additional follow-up consultations to monitor your treatment progress and to assist you to get the most out of your products.
- Access to a support program. Some manufacturers also offer Australian customers access to support programs to help you on your sleep therapy journey.

#### What if you experience a problem with your product?

We acknowledge that the products we sell may come with guarantees that cannot be excluded under the Competition and Consumer Act (Cth) 2010 (the "Australian Consumer Law").

If you are a "consumer" under the Australian Consumer Law, and the product you have purchased, either from within Australia or from overseas, does not comply with one of the applicable consumer guarantees under the Australian Consumer Law, you may at your option, pursue a remedy directly from the seller who sold you the product, If we sold you the product, you may contact us by email at cpap@cpapaustralia.com.au or phone 1300 69 2727 so that we can investigate the cause of the problem. If we did not sell the product directly to you, we are not obliged to repair, refund or replace your product. However, we acknowledge that having the product repaired or replaced is one of the most common and easiest ways to resolve any product issues and so we will work with you to ensure a mutually satisfactory outcome is achieved.



#### Products purchased from overseas

If you purchase our products from overseas, you should be aware of the following:

- Some products feature regional customisations to comply with local legislation or to conform to other local conditions. For example, wireless connectivity may not work if the product is configured for an overseas market.
- Medical devices in Australia are regulated by the Therapeutic Goods Administration (TGA) and must be included in the Australian Register of Therapeutic Goods (ARTG). Machines purchased overseas or via the internet may contravene these regulations and may also be subject to Australian Customs restrictions. [Should a product recall occur, the purchaser of a product from overseas may not be informed].
- A machine bought online from an unscrupulous dealer may be an imitation product.

## Overview of manufacturers

There are 4 manufacturers who supply sleep therapy machines to the Australian market. At CPAP Australia you can trial and purchase machines from any of these manufacturers. CPAP Australia also offers reconditioned machines and replacement parts.

#### **Philips Respironics**

Philips Respironics is the respiratory care division of Philips, a Dutch company and one of the world's biggest manufacturers of electronics. In addition to sleep apnea machines, they also design and manufacture masks and tubes.

Their range of machines includes:



#### **Fisher & Paykel**

Fisher & Paykel is a New Zealand company. As well as producing consumer electronics, they are a leading designer, manufacturer and marketer of products and systems for use in respiratory care, acute care, and the treatment of sleep apnea. They also provide masks and tubes.

Their range of machines includes:



ICON+ Premo (CPAP)



ICON + Auto (APAP)

#### ResMed

ResMed is an Australian company that designs and manufactures medical products for respiratory disorders, with a focus on sleep-disordered breathing. ResMed sells a range of products in approximately 100 countries worldwide. They also provide a range of masks and tubes.

Their range of machines includes:



AirSense™ 10 Elite (CPAP)



AirSense 10 AutoSet™ (APAP)



AirSense 10 AutoSet for Her (APAP designed for women)



AirCurve™ 10 CS PaceWave (ASV)



Lumis<sup>™</sup> 100 VPAP S (Bi-level)



Lumis 150 VPAP ST (Bi-level)



Lumis 150 VPAP ST-A (Bi-level)

#### Transcend

Transcend is a US company that designs and manufactures a small range of compact, portable sleep apnea devices. They do not provide tubes or masks.

Their range of machines includes:



Transcend II (CPAP)



Transcend Automatic (APAP)



### What to do next

If you have been diagnosed with obstructive sleep apnea and your doctor has prescribed a sleep therapy machine, you can book an appointment with CPAP Australia for a free consultation about treatment.

# Phone **1300 69 2727** (1300 MY CPAP)

or inquire online at **CPAPAustralia.com.au** 





#### References

<sup>1</sup> Babu AR et al. Type 2 diabetes, glycemic control, and continuous positive airway pressure in obstructive sleep apnea. Arch Intern Med 2005; 165: 447-452.

<sup>2</sup>Lin CM, Davidson TM and Ancoli-Israel S. Gender differences in obstructive sleep apnea and treatment implications. *Sleep Med Rev* 2008; 12(6):481-96.

<sup>3</sup> Callop N, Cassel DK. Snoring and sleep disordered breathing. *Sleep Medicine*. Lee-Chiong T Jr SM, Carskadon M, Editor. 2002 Hanley & Belfus: Philadelphia. 349-355.

<sup>4</sup> Mihai V, Rusu G and Mihăescu T. Demographic clinical and polysomnographic differences between men and women. Pneumologia 2010; 59(2): 64-7.