

Continuous Positive Airway Pressure (CPAP)



Important Things to Know About CPAP

- CPAP is a very safe treatment for obstructive sleep apnoea.
- It is made up of an air pump and a mask which are joined by a tube.
- It is used only during sleep.
- The pump blows air under low pressure. This goes through the tubing and mask and into the throat to hold the airway open. The machine is very quiet.
- Some people also use a humidifier. This adds moisture to the air to make it less dry.
- CPAP will stop your snoring.
- CPAP starts working straight away.
- As soon as you stop CPAP, the sleep apnoea will come back. But the occasional night without it is usually not a big problem.
- It is easy to travel with many new types of CPAP machine.
- Before starting CPAP treatment, you need to have your sleep apnoea diagnosis confirmed.
- Your GP can refer you to a sleep specialist.

What is CPAP?

CPAP is Continuous Positive Airways Pressure. It is the most effective way to treat sleep apnoea. If you have **Obstructive Sleep Apnoea**, your **Sleep Specialist** may give you a range of treatment choices and CPAP may be one of these.

How does CPAP work?

CPAP is a simple concept. The equipment has three basic parts. The first is an air pump. The second is a mask that covers the nostrils or nose and sometimes the mouth. The third is a tube to link the two. The CPAP pump takes air from the room and gently pressurizes it. The air blows through the tube and mask into the throat. The pressure of the air keeps the throat open while you are asleep.

The pump should not stop either you or your partner from sleeping well during the night. In fact, it is designed do the reverse and should help both of you to sleep better. It is very quiet and makes you quiet as well. You do need to make sure that the mask fits comfortably without any leak (apart from that coming from the exit port in the mask). If it leaks, this can be noisy and air may blow into your eyes or at your partner.

There are many different types of pumps and masks, so there will be one that suits you.

How long does CPAP take to work?

CPAP will stop your sleep apnoea straight away. You might start to feel better on the day after your first night of using it effectively. But some people find it takes a bit longer. It might take some time for both you and your partner to get used to CPAP. At first, you might not be able to use it for the whole night. This is common. It is better to build up use slowly than to try very hard too early and give up. What you need to do is to get any problems you are having seen to by your CPAP supplier and to keep trying. Be patient with yourself and with the device. Ask for help. Almost all the problems with CPAP can be solved with a little help and persistence

How do I start on CPAP treatment?

The pressure delivered by the pump needs to be adjusted to the right level to hold your airway open. Some people

need more pressure than others. There are two ways to find out how much you need:

- **Sleep Lab CPAP study.**

You will have an overnight [Sleep Study](#). This may be like the one used to diagnose the sleep apnoea. With this sleep study, you will sleep in a Sleep Laboratory with the CPAP on. There will be someone there who will gradually turn up the pressure on the pump. They will do this until it is just enough to keep your airway open. In the morning, you will get a prescription. You can take this to a CPAP supplier. This will tell them what mask is likely to fit well. It will also say what pressure you need on your pump.

or

- **Home CPAP study.**

You will meet with a CPAP therapist during the day. He or she will show you how to use the CPAP pump. They will fit you with a comfortable mask as well. You then take the pump and mask home to use at night. You might have it for only 1 night, or you might have it for a week or two. The machine will work out how much pressure you need and keeps a record of this. When you go back to the CPAP therapist, they will download the information from the machine. You will be given a prescription for the pressure and best mask for you. With some CPAP suppliers you can hire a CPAP machine for several weeks to make sure that it is the right one for you.

Two basic types of CPAP Pump

There are two basic types of CPAP pump: those that deliver a *fixed pressure* and those that *automatically adjust* the pressure. Fixed pressure pumps run at a pressure that has been set to suit your needs. They have a ramp function (see below) which allows this pressure to increase slowly to this level after it is put on, if you prefer. They are cheaper than auto-adjusting devices and highly acceptable to many patients, particularly if they have average pressure requirements. Auto-adjusting devices monitor airflow and continuously adjust pressure overnight to keep the throat open. They are very useful in patients where pressure requirements vary a lot during sleep and are high at times. Your sleep specialist and CPAP therapist can help you decide which is best for you

Does it have any side-effects?

CPAP is very safe. It has few side effects. The most common problems are:

- **Mouth leakage.**

Some people find it hard to sleep with a nose mask at night with their mouth closed. For them, when the machine goes on, the air goes in through their nose

but then rushes out through their mouth. This can be uncomfortable and may wake them. But this extra flow of air can also go unnoticed at night yet lead to drying of the nose and throat, a runny nose, a stuffy nose or sneezing. One way to solve this is with a chin strap. This is a band of fabric that goes around the head and holds the mouth closed. Another solution is to use a mask that covers both your mouth and your nose.

- **Nose and throat difficulties.**

Another way to solve problems with airway drying or a stuffy or runny nose is with a humidifier which fits onto the pump. It is filled with water. When the pump goes on, the water heats up and warms and moistens the air. Not everyone needs it. Some people only need it in cold weather. Some people need it every night.

- **Water in the mask and tubing.**

This often happens in cold weather. If you are using a humidifier, the air that is being blown into the tubing is warm and moist. If the air in your bedroom is cold, this warm, moist air condenses in the cold tubing and the water is left in the tube and mask. To prevent this, the tube must be kept warm. An easy way to do this is to insulate it. You can wrap some aluminum foil and a towel around it, run it under your blanket or use a commercial tubing "cosy". Some CPAP manufacturers have an adjustable heating wire in the tubing which helps to prevent the problem. Where you are using this heated tubing it should not be wrapped in insulation.

- **Leaking mask.**

If your mask does not fit well, it will leak. You can often solve this by adjusting the mask and straps, but you may need to change your mask. CPAP should be very quiet. When patients complain that it is not, it is usually due to a leaking mask.

- **Manufacturer's User Guide/Manual**

As with any medical device, make sure you read the user guide for your pump before using it so that you understand it well.

Are there any dangers with CPAP?

CPAP is extremely safe. If you are having surgery, talk with your surgeon about when it is safe to use CPAP. This is especially the case if the operation is on your nose or airways. Many surgeons and anaesthetists prefer their patients to bring their CPAP into hospital with them, because it helps your recovery after the operation.

How long will I need to use CPAP?

Unfortunately, CPAP does not cure sleep apnoea. All it does is keep the airway open to control the symptoms. If

you stop using CPAP, your airway will once again repeatedly obstruct during sleep. Sometimes if you lose a lot of weight, you may need less pressure or even be able to do without CPAP. But you should talk about that with your sleep specialist.

Do I need to use CPAP all night?

Almost as soon as you stop CPAP your sleep apnoea will come back. You should use your CPAP whenever you sleep, including if you take daytime naps. Some people find this hard, but you should try to use it all night, every night. Remember that if you don't use it, it does not work. Recent studies show that the more you use it, the more you get out of it.

What happens if I can't use CPAP for one or two nights?

One or two nights with no CPAP (e.g. if you are on holidays) is not likely to be a big problem to you. Most people with sleep apnoea have had it for years before they knew and during this time they didn't have any treatment. But you need to know that all your symptoms will come back very quickly. You will snore at night and feel tired during the day. You may need to adjust your lifestyle (e.g. not drive) if you are sleepy or tired during the day. If you have a cold with a blocked nose, use a nose spray which is available from your chemist. It is fine to use these across-the-counter sprays for up to a week, but avoid more prolonged use of them. Sometimes CPAP with the humidifier can help the blocked nose. Using a full face mask is an alternative if you have prolonged nose obstruction. Your CPAP supplier may have one for you to use temporarily if needed.

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Sleep Disorders Australia

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A voluntary group offering assistance and support to people and their families living with sleep disorders

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The peak national association of clinicians and scientists devoted to investigation of sleep and its disorders

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Ongoing concerns about sleep or other medical conditions should be discussed with your local doctor.

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What is a ramp?

Most CPAP machines can be set to start with a lower pressure. This goes up over 15 to 30 minutes until it gets to your pressure. This is to help make CPAP more comfortable for you as you fall asleep.

Can I take my CPAP on holidays?

You should certainly try to use CPAP on holidays. It will help you and those you travel with enjoy the holiday more. Most CPAP machines now work on both 110 and 240 volts. Many can also run on a 12 volt battery. This means they can be used when overseas and while camping. To learn more, see [Travelling with CPAP](#).

Sources of help and information

If you are concerned about sleep apnoea, you should talk with your GP. They can refer you to a [Sleep Specialist](#). Patient support groups such as Sleep Disorders Australia have branches throughout Australia. They hold information sessions as well.

Where can I find out more?

<http://www.nhlbi.nih.gov/health/health-topics/topics/cpap/>

See also our page [CPAP: Making it Work for You](#) for help with this using this therapy.



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