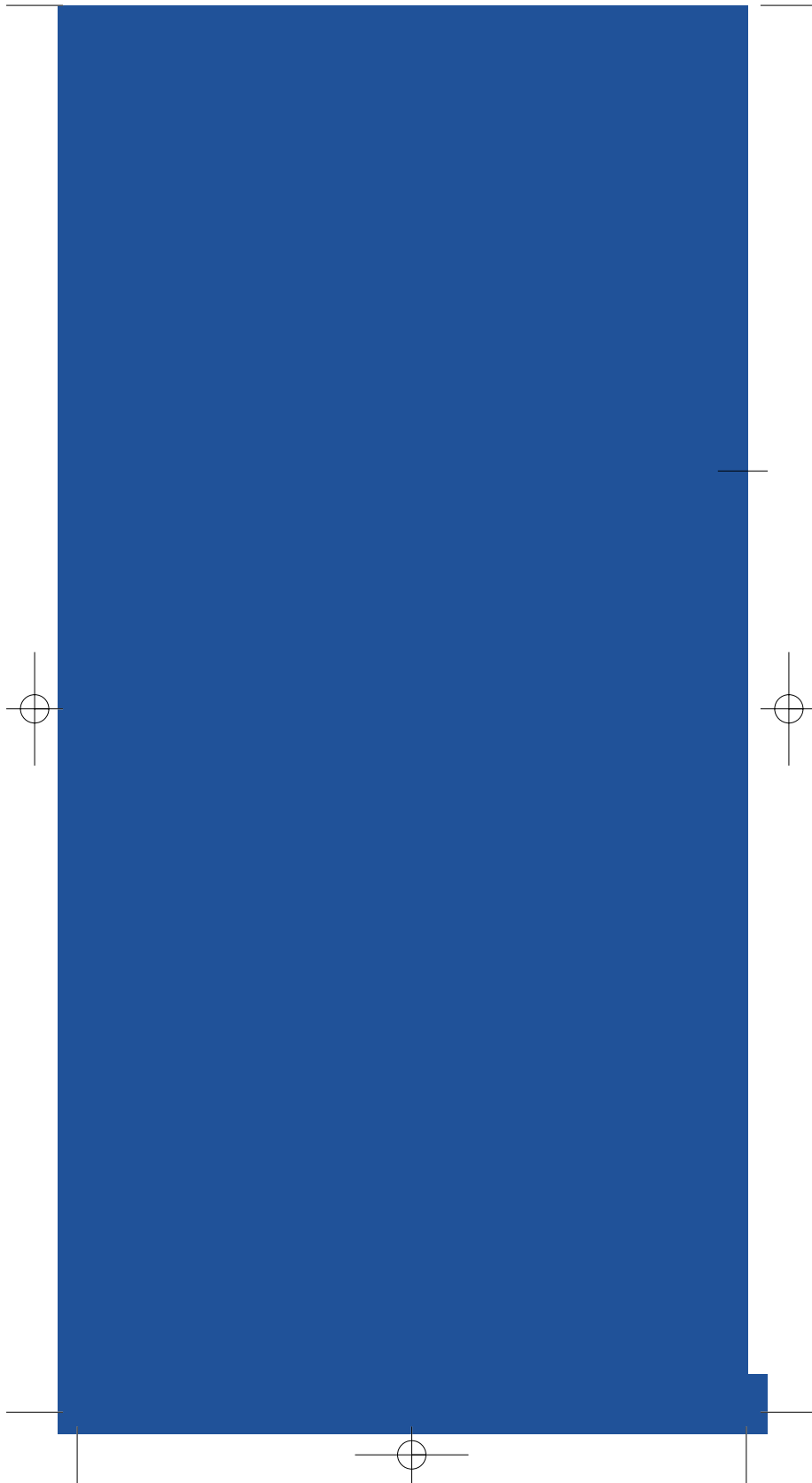


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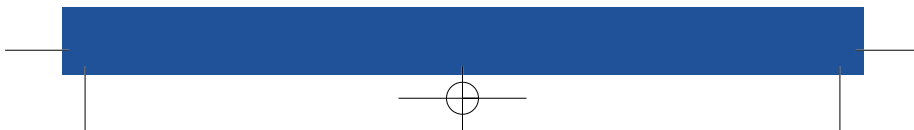
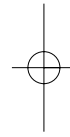
Coping with positive airway pressure treatment





Coping with positive airway pressure treatment





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Helping you cope

We often get asked the same questions by our customers. In this booklet we answer the most common queries about sleep apnea, CPAP, and other forms of positive airway pressure therapy. Our web site www.resmed.com also has a range of information to help you choose the right products and cope successfully with your treatment.

If you have any further questions or difficulties you should ask your sleep clinic or equipment supplier. They will be able to help and also put you in touch with sleep apnea support groups.

What is snoring and how is it different from sleep apnea?

During normal sleep the muscles controlling the tongue and soft palate, although relaxed, hold the airway open. However, under some circumstances, the airway becomes narrower, reducing the size of the air passage.

Stronger breathing effort exerted to overcome the narrowing causes the soft or floppy part of the throat to vibrate, causing the noise of snoring.

The airway can also narrow to some extent without snoring. The airflow to the lungs is therefore reduced and may reduce the amount of oxygen delivered to the body tissues. This may prevent you from getting the best night's sleep.



If the throat is particularly narrow, or the muscles relax too much, the airway can become completely blocked, preventing breathing. This condition is obstructive sleep apnea (OSA).

After a period of time, which can be anything up to two minutes, the brain realizes there is a lack of oxygen. It then alerts the body to wake up. Although the sufferer is often not aware of it, this cycle can occur several hundred times during the night, severely disrupting sleep.



What causes the throat to narrow and create snoring or OSA?

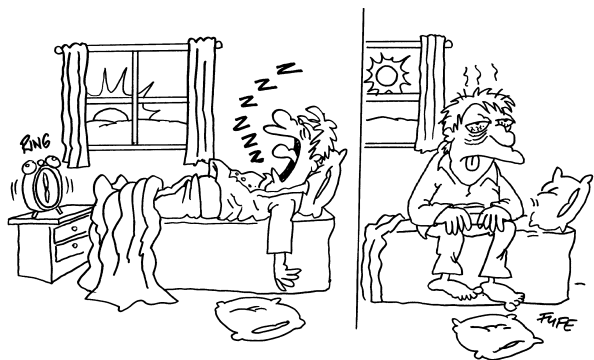
There are several different causes. Some of these include increasing age, obesity, and nose or throat problems. Alcohol consumption and sleeping tablets relax the airway muscles potentially causing, or worsening, snoring and OSA.

How common is OSA?

OSA is the most common sleep disorder. Although it is more common in men over the age of forty, OSA can affect people at any age—from newborn babies through to adults of either sex. Around 10 percent of the population suffers from OSA, a figure similar to that of asthma or diabetes.

How can you tell if someone has OSA?

You can often tell if someone has OSA. If you listen while they sleep you will hear snoring followed by a period of silence. There may then be a loud snort or a gasp as they start to breathe again. Some people with OSA do not snore and it is usually the symptoms, such as excessive daytime sleepiness, that indicate whether someone is suffering from OSA.





Is OSA life threatening?

OSA has been linked to a number of serious life threatening conditions including high blood pressure, hypertension, heart disease, stroke, chronic obstructive pulmonary disease (COPD), and congestive heart failure. As a result of severely disrupted sleep, many people suffering from OSA are excessively tired during the day. Studies have linked this tiredness to increased occurrence of traffic accidents.

Other symptoms of OSA may include morning headaches, depression, memory lapses, and sexual dysfunction.

How is OSA treated?

Sometimes losing weight or reducing alcohol intake can help reduce the severity of mild OSA. Some surgical and dental procedures can also be used to treat mild OSA. However, the most simple, effective, and well-recognized treatment is positive airway pressure treatment.

Positive airway pressure therapy involves wearing a mask, which is connected by tubing to an electric motor device that delivers air at positive pressure. This air pressure acts as an air splint to keep the upper airway open and prevent apneas.

What will I need for treating my OSA?

You will need a positive airway pressure device, a mask system, and air tubing to connect the device to the mask. Mask systems include the mask cushion that you wear over your nose or nose and mouth, a mask frame, and headgear. Humidifiers that add moisture to the air before you breathe can also improve the comfort of your therapy. ResMed has a range of humidifiers and also devices with integrated humidifiers for added convenience.

What kind of device do I need?

Your sleep clinic will usually recommend the type of device that suits you. There are three different forms of air delivery:

CPAP stands for continuous positive airway pressure. It involves air delivery at a fixed pressure, which is the optimum pressure required to prevent you from having obstructive apneas while you sleep. It is determined during a sleep study and is unique to each sufferer.

APAP stands for automatic positive airway pressure. It involves devices such as ResMed's AutoSet Spirit™ that continually adjust the air pressure to the level you require. The device monitors your breathing throughout the night and adjusts the pressure on a breath-by-breath basis to the amount needed to keep your airway open.

The amount of air pressure you need changes throughout the night and also from night to night due to sleeping patterns, sleep position, or even food and drink consumed during the day. As it delivers only the pressure you need when you need it, this type of therapy tends to deliver lower average treatment pressures and be more comfortable.

Bilevel therapy involves two set pressures: a high level for when you breathe in and a lower level for when you breathe out. Devices like ResMed's VPAP® (variable positive airway pressure) automatically sense when you are breathing in or out and change the pressure level accordingly. This type of treatment is suitable for people with lung diseases such as COPD, people who need very high pressure levels, or people who find it difficult to breathe out against one fixed pressure.

What kind of mask do I need?

Using the right mask is essential to the success of your treatment. You need a mask that is comfortable and fits properly. It should form a good seal on your face so that air doesn't leak out of the mask as this would be uncomfortable and make your therapy less effective.

A nasal mask that covers your nose is most commonly used. ResMed produces a range of comfortable, effective nasal masks to suit different face shapes and requirements. However, some people breathe through their mouth when they sleep. In this case a full face mask such as ResMed's Ultra Mirage™ Full Face Mask that covers both your nose and mouth is the best option. If you are not sure if you need a full face mask the checklist on page 16 will help.

ResMed is world-renowned for mask systems that are comfortable and effective. All systems are easy to fit and care for and come fully assembled with the cushion, mask frame, and headgear.

Complete solutions for mouth leak and mouth breathing

Most people sleep with their mouth closed when using therapy; others may find that air escapes from their mouth. Mouth leak is a problem that can make your treatment uncomfortable and less effective. There are a number of options to help this situation:

- A humidifier can help to moisten your airway so that you keep your mouth closed while you sleep. This helps to keep mild leaks under control.
- Some ResMed devices automatically compensate for leak so that your treatment remains effective. They can also record leak levels throughout the night to pinpoint when leak is a problem.
- A full face mask covers both your nose and mouth to prevent air leaks—see the checklist on page 16 to work out whether you would benefit from a full face mask

Checklist—do I need a full face mask?

- Do you often wake up with a dry mouth and/or throat?
- Do you tend to breathe through your mouth rather than your nose?
- Do you suffer from allergies?
- Do you suffer from hay fever?
- Do you find you have a blocked nose or congestion at certain times of the year?
- Have you ever had a broken nose?
- Have you ever had nasal surgery?
- Do you have a deviated septum (wall dividing nasal cavities leans towards one side)?
- If you are already using therapy with a nasal mask:
 - Are you continuing to snore even when using therapy?
 - Do you use a chinstrap with therapy?

If you can answer “yes” to one or more of these questions you will probably experience loss of air from your mouth during treatment. This can be uncomfortable and also prevent you from receiving all the benefits of therapy.

When this happens, a full face mask such as ResMed's Ultra Mirage Full Face Mask can help.

Many people will need to use a full face mask all of the time but others may find they only need it from time to time—for example during certain seasons or when they have a cold.



How will treatment affect my life?

Positive airway pressure treatment should not greatly interfere with your lifestyle. ResMed devices are fully portable so you can take them with you when you travel. They also run on virtually any power supply in the world without the need for special adjustment. All that is needed is a plug adapter for the country you are in if you are overseas. They can also be run from 12V or 24V batteries using an appropriate inverter. Some airlines have approved the use of ResMed devices on long haul aircraft; you may need to take a letter from your doctor or sleep clinic confirming that you need therapy. It is advisable to check with your airline before travel.

Frequently asked questions

How long will it take to get used to CPAP?

Most people adjust to CPAP in one to two weeks. Occasionally it may take a little longer if, for example, you are very sensitive to noise or the feel of the mask on your face.

How soon after I start using treatment will it be before I notice an improvement?

You should notice an immediate improvement when you start treatment though some people may take a little longer.

How often will I need to use my treatment?

You will need to use your treatment every night of the week while you sleep. If you do not, you will return to your previous level of snoring, sleep apnea, and daytime tiredness.

Will the pressure on my device ever need changing?

If you are using CPAP or bilevel (VPAP) therapy, the pressure will remain set at levels that suit your requirements. Sometimes, however, there is a need for fine-tuning or adjustment to pressure levels, for example if you lose or gain weight. If you find your pressure difficult to tolerate, it may be dropped slightly

for a short time at the beginning of therapy at the discretion of your doctor or sleep physician. A sleep physician will review you if symptoms of snoring and daytime sleepiness have returned.

If you are using AutoSet™ therapy the device will automatically adjust the pressure levels to suit your continuously changing needs. This type of treatment is particularly recommended if your weight fluctuates regularly, or you regularly consume alcohol or sleeping tablets

Will my blood pressure improve after I start treatment?

Yes it can but please do not alter your medication without consulting a doctor. Your doctor should review your blood pressure regularly even if your medication does not change initially.

Is it easier to lose weight when using treatment?

It may be. You should find that your energy levels increase and you are likely to feel motivated to take part in many activities that your previous sleepiness has prevented you from doing. However, permanent weight loss requires long-term lifestyle changes to diet and exercise.

My partner (or I) sleep very lightly. What do I do if I find my device a bit noisy?

ResMed devices are designed to be extremely quiet. However, if you have trouble adjusting to the noise, try placing your device on the floor next to your bedside until the noise no longer bothers you.

A humidifier can help by “muffling” the noise. Ask your sleep clinic or equipment supplier for details.

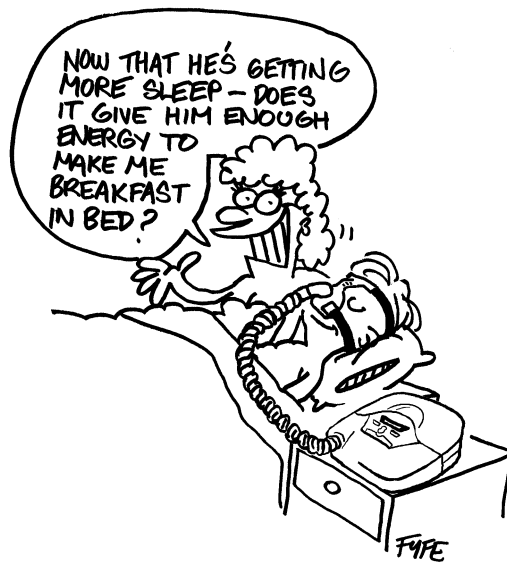
If you find the noise that disturbs you is coming from the air escaping from the vents on the mask frame, check that there is nothing blocking them.

Alternatively you could place your device in another room using longer air tubing or joining two air tubes together with an air tubing connector:

Note: If you do this you should have the pressure checked to make sure it is still adequate to treat your OSA. If your device has a SmartStart™ facility you may find that lengthening the tubing interferes with its performance. In this case you should either use just one length of air tubing or take your machine to your supplier who can turn the SmartStart feature off.

I've just started treatment and it's irritating my nose.

The cool dry air of treatment can cause a runny nose and sneezing in some people, but it usually settles down within a few days to a week. If it does not settle down, you should consider using a heated humidifier, which will help by adding warmth and moisture to the air. Remember, if you are using a fixed pressure CPAP device, your set pressure may need to be adjusted slightly if a humidifier is used. If you are using a ResMed AutoSet device, it will automatically compensate for the pressure if a humidifier is used.



I find the air delivered through the mask is cold and disrupts my sleep.

Some people experience dryness of the nose, mouth, or throat when on treatment, particularly during the winter months. If the air delivered through the mask is cold and disrupts your sleep, the alternatives are heating the room, placing the tubing under the bedclothes (as body heat will increase the temperature of the air passing through the tubing), or humidification. A heated humidifier adds warmth and humidity to the air before you breathe it, reducing these symptoms and making the air more comfortable to breathe.

My nose gets blocked regularly, so I have to breathe through my mouth. What do you advise?

Since the nose is a very effective point of entry when using nasal positive airway pressure therapy, it is necessary for it to be clear. One option is to use a nasal decongestant and we recommend you discuss this with your doctor. Please note that overuse of nasal decongestants can also cause a blocked nose over time. You may find that a full face mask is the answer to this problem, particularly if you do not wish to use decongestants on a long-term basis.

A full face mask covers both your nose and mouth so that you continue to receive effective therapy, even if you are breathing through your mouth.

I feel air leaking out of my mouth as I fall asleep.

Your mouth needs to be closed while you sleep to prevent any air escaping from the mask. A full face mask that covers your nose and mouth will ensure that you continue to receive effective therapy as you fall asleep. An alternative solution is to use a chin strap, which can help to keep your mouth closed.



Can I use my treatment if I have a cold?

If you experience an infection of the upper respiratory tract, middle ear, or sinus, you should consult your physician before continuing treatment. You may be advised to discontinue until the infection has cleared. If you continue with treatment during an infection, it is advisable to wash your mask and tubing more often. A full face mask may be a good alternative at this time as it covers both your nose and mouth so you continue to receive effective therapy.

Do I need to take my device into hospital with me if I need hospitalization for any reason?

Yes. Your recovery may take longer if you stop your treatment and your general well being starts to deteriorate. If you are having surgery, it is very important that you tell both the surgeon and the anesthetist that you are being treated. You should also inform the physician treating you for sleep apnea that you are going into hospital.

Will I ever be able to stop treatment? Will I ever be cured of my snoring and sleep apnea?

OSA is a long-term condition for which there is presently no known cure. The good news, however, is that positive airway pressure therapy will effectively control your sleep apnea—as long as you continue to use it.

I often wake and find I have taken my mask off in my sleep. How can I avoid doing this?

If you are on CPAP or bilevel (VPAP) therapy, this may indicate that your treatment pressure is not enough to completely control your sleep apnea and a slight increase in pressure may solve the problem.

Alternatively some ResMed devices have a mask alarm that alerts the user if the mask is removed. Discuss this symptom with your sleep physician.

Why do I feel that it is hard to breathe out when using CPAP?

When first using CPAP, most people find they experience a need to push against the airflow when they breathe out. It may take a little time to get used to breathing out against the pressure. Practice sessions in the daytime while relaxing or listening to music may help overcome this feeling. However, breathing out against the flow of air will happen automatically when you are asleep.

For people who have more than the usual difficulty in getting used to breathing out against the air pressure, some of ResMed's CPAP devices have options such as the ramp feature. This feature allows you to fall asleep at a lower pressure while your device ramps up to your full treatment pressure over a period of time.

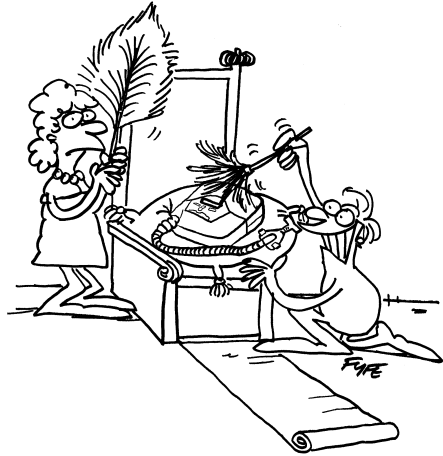
Alternatively, you could consider using an AutoSet device or a bilevel device such as ResMed's VPAP.

I'm going overseas—can I use my device in other countries?

ResMed devices have a switch mode power supply which means they will operate on the various power supplies in different parts of the world. They accept 110-240V, 50-60 Hz without any special adjustment. Please note that you will still need to use the correct adaptor for the type of power outlet in the country you are visiting.

With the use of a suitable inverter unit, your device can operate from a battery supply (eg in a truck, recreational vehicle, or boat). The inverter should be capable of supplying mains voltage in the range 110-240V and should be of sufficient capacity. Your ResMed distributor can assist in your choice of a suitable inverter for your device.

Note: A rated capacity of up to 200 W may be necessary with some brands of inverter to ensure satisfactory operation.



Caring for your ResMed device

Your ResMed device will not normally require servicing. However, to increase the life of your machine, air filters should be changed every four to six months, depending on how much dust there is in the environment. A blocked air filter may reduce your pressure. We recommend you check your filter every month for holes or dust build up.

Before going to sleep, wash your face to remove excess facial oils prior to fitting the mask. This will help prevent oil from the skin getting onto the mask and cushion.

We also recommend that you do not apply moisturizers near areas where the mask will touch your face. This will help prevent as much oil as possible from the skin finding its way onto the mask and cushion.

Please refer to the user instructions for details on caring for your mask system.

The air tubing needs cleaning too. Warm, soapy water will do but don't hang it outside to dry—the UV rays will break down the plastic. Do not use any bleach compounds, eucalyptus oils, or chlorine compounds as these can discolor or deteriorate the plastic.

After cleaning all products, rinse thoroughly so as not to leave a soapy residue.

Warnings relating to treatment

If you experience any of the following symptoms during treatment, consult your physician immediately.

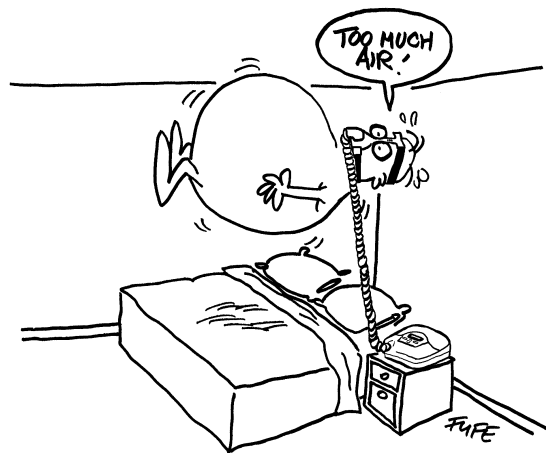
- Headache
- Middle ear or sinus discomfort
- Chest pain

A slightly bloated feeling is usually the result of excessive swallowing of air in response to the pressure sensation from your device while you are awake. Using a ramp feature may help but contact your physician if symptoms persist.

If any of the symptoms of sleep apnea recur during the course of your treatment, consult your physician.

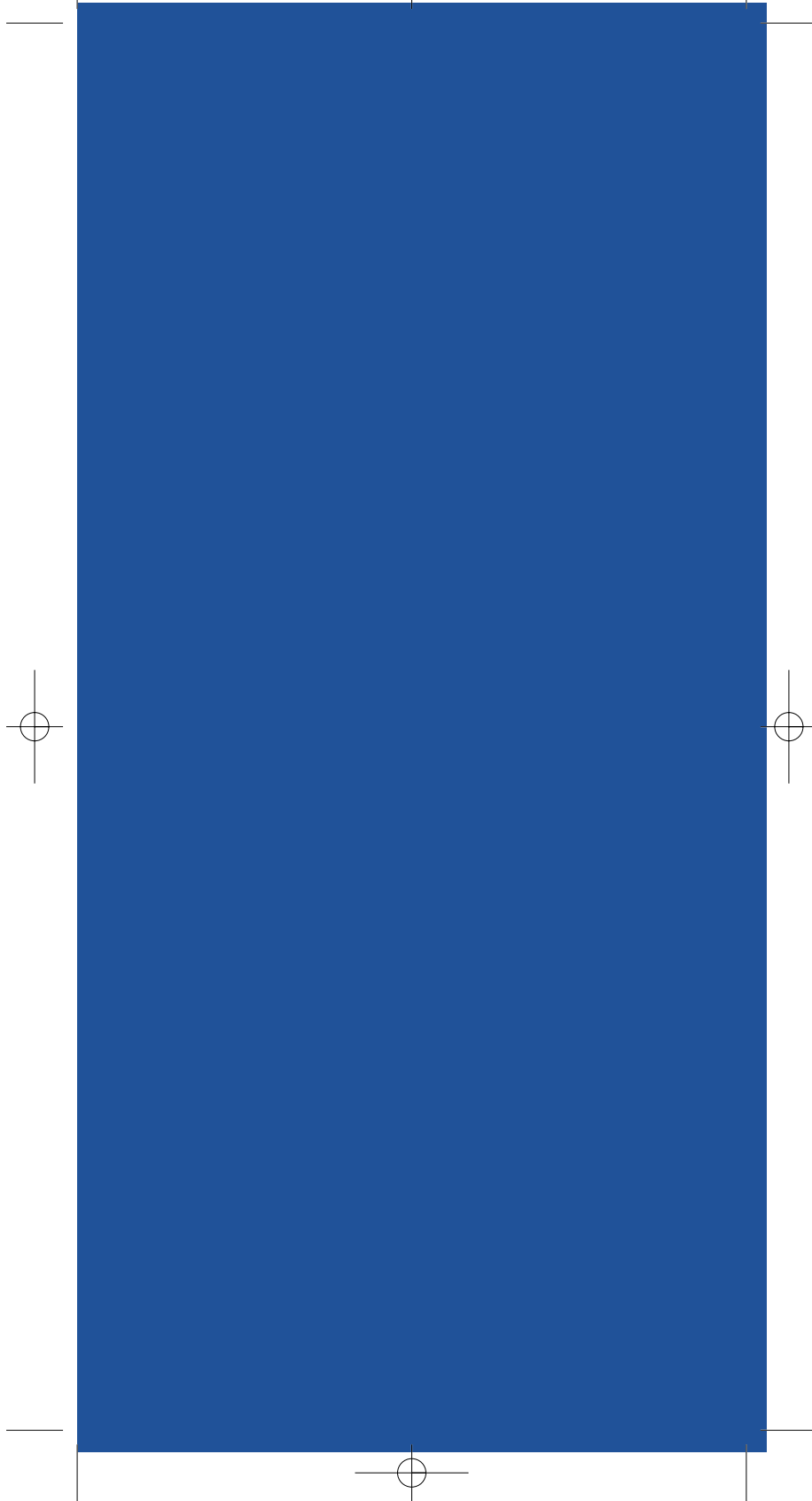
You may experience sneezing, a runny nose, or nasal obstruction, especially during the first few weeks of therapy. This may need treatment such as a nasal spray, or if the symptoms persist you may need a humidifier. Consult your physician or equipment supplier for advice.

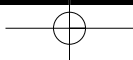
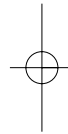
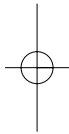
Do not stop your CPAP treatment without the approval of your physician. Always consult your physician if you expect to be in a situation where you cannot use your therapy for more than a few days.



Contact ResMed

ResMed has offices and distributors throughout more than 60 countries. Please visit our web site at www.resmed.com for details of locations.





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SPECIFICATION - PRINTED MATERIALS

Document No	10189
Revision	7
Page	1 of 33

Rev	Change Note	Date	Create/Revised by		Checked by	
			Name	Initial & Date	Name	Initial & Date
0	Original Issue					
1	C2077					
2	C2587					
3	C3684					
4	C4072					
5	C4370					
6	C4684					
7	C9155	2/6/03				

Coping with positive airway pressure

1. DETAILS

- Dimensions:** Finish size 210H x 100W ± 5 mm
- Colour of printing:** Cover: 4 colour. Inside Pages: 2 colour (PMS 287 + black).
- Stock:** Booklet. Cover: 250gsm Chorus Silk and laminated.
Inside pages: 115gsm Chorus Silk.
Saddle stitched.
- No. Pages:** 33 pp
- Art Work:** As shown on following pages. If retypeset, the same styles and sizes must be maintained
- Manufacturer:** External printer

2. RESMED QC INSPECTION

- ResMed's QC inspection regarding attributes shall be according to Australian Standard AS 1199-1988 Table 1 Special Inspection Level S1.
- ResMed's QC inspection regarding variables shall be according to Australian Standard 2490-1997 Special Inspection Level S3.

3. INSPECTION REQUIREMENTS

Refer to R04P003 - Printed Materials