



CPAP treatment for obstructive sleep apnoea: manual

Patient Information

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OBSTRUCTIVE SLEEP APNOEA

WHAT IS APNOEA?

Apnoea: period during which breathing (temporarily) stops.

There are 2 types of sleep apnoea:

- Central sleep apnoea: the brain is not sending signals to tell your muscles to breathe.
- Obstructive apnoea: blocked airways when the soft tissue in the back of the throat collapses.

OSAS (Obstructive Sleep Apnoea Syndrome): obstructive sleep apnoea combined with feeling sleepy during the day.

Consequences of OSAS:

- Each time your breathing stops you briefly wake up (3 seconds or longer), although you are usually not aware of this.
- Your sleep pattern will be disrupted and you will not go into a deep sleep.

WHAT ARE THE POTENTIAL CONSEQUENCES OF OSAS AND HOW DOES THIS AFFECT YOUR DAILY ROUTINE?

- You will not feel rested in the morning
- You will usually feel sleepy during the day
- Risk of traffic accidents due to fatigue
- Loss of concentration
- Memory problems

WHAT ARE THE POTENTIAL CONSEQUENCES OF OSAS FOR YOUR GENERAL HEALTH?

- High blood pressure
- Arrhythmia
- Heart attack
- Cerebral haemorrhage
- Diabetes

CPAP TREATMENT

WHAT IS CPAP?

CPAP: Continuous Positive Airway Pressure. Air flow is introduced into the airways to maintain a continuous pressure, i.e. to keep them open.

WHY DO I NEED TO USE A CPAP MACHINE?

Breathing with apnoea: breathing in generates negative pressure in the airways, which can lead to frequent collapse of the soft tissue in the back of the throat.

When using a CPAP machine: positive pressure is maintained in the airways and the throat is kept free and open.

WHEN DO I NEED TO USE MY CPAP MACHINE?

- Every night
- All night

Otherwise the treatment will not be effective.

WILL I HAVE TO USE A CPAP MACHINE FOR THE REST OF MY LIFE?

Yes, because the use of the machine is a treatment rather than a cure. If you stop using the machine the symptoms will return immediately, i.e.:

- snoring
- apnoea
- tiredness

In some, milder cases sleep apnoea can be alleviated, e.g. by losing weight.

WHEN WILL I START NOTICING THE EFFECT OF THE TREATMENT?

- Most people feel the impact within a week.
- If you need to catch up on a lot of sleep it may take a little longer before you feel the optimum effect.
- Sometimes your body needs to adapt. That's why you should give it time and persevere. You should notice a significant improvement within 4 weeks.

MY CPAP MACHINE

HOW DO I SWITCH THE MACHINE ON AND OFF?

The large square button at the top of the machine is the on/off switch.

WHAT IS THE PURPOSE OF THE 'RAMP' SETTING ON THE MACHINE?

The Ramp setting allows the machine to start at a lower pressure and then gradually increase to the treatment pressure. The machine will check that you are asleep and then automatically increase the pressure.

If you're not asleep the machine will increase the pressure automatically 30 minutes after it has been activated.

The Ramp setting has been programmed into the CPAP machine. You don't need to activate it.

Remember: the Ramp time is not included in the usage hours.

WHERE DO I POSITION MY CPAP MACHINE?

- As close as possible to your bed
- Not on the floor

SMOKING AND CPAP MACHINES

Nicotine can cause irreversable damage to the machine!
Smoking must consequently be banned at all times in the room where the CPAP machine is used or stored.

HOW DO I MAINTAIN MY CPAP MACHINE?

Clean the dust filter on a weekly basis:

- Remove the filter from the machine.
- Knock off or blow off the dust (don't rinse in water).
- Replace the filter in the machine ready for use.

Never remove the SD card from the machine.

MASK WITH HEADBAND

WHY A MASK?

Everyone has a differently shaped nose, which means that different types of mask are required.

The nurse will identify the most suitable type of mask for you together with you.

HOW DO I PUT ON MY MASK?

- ➔ **Tip:** mark the position of the bands when the mask is correctly adjusted to ensure that you can easily replace them after cleaning.
- ➔ **Tip:** if you need to visit the toilet during the night, leave your mask in place and disconnect the air hose from the machine.

DOES MY MASK HAVE TO FEEL TIGHT?

The mask should never feel tight.

Tighten the bands just enough to ensure that there are no air leaks. If the bands are too tight there will be folds at the edge of the mask, which will:

- increase leakage
- risk injuring the skin
- speed up wear and tear

HOW DO I MAINTAIN MY MASK AND HEADBAND?

- **Nose piece:** rinse in water every day and clean with soap and water once a week.
- **Headband:** rinse with soap and water once a week.
- Use lukewarm water and neutral soap (never use alcohol, disinfectant, detergents, etc.).
- Use your fingers to wash items, never use a scouring pad.
- Pat dry with a clean towel.
- Leave to air dry (never in the sun or on a radiator).

→ **Tip:** clean the material in the morning to ensure that it will be dry by night time.

FLEXIBLE AIR HOSE

HOW DO I ATTACH THE AIR HOSE?

The **air hose** has 2 identical end pieces:

- 1 to be connected to the mask
- 1 to be connected to the CPAP machine

A **heated air hose** has 2 different end pieces for the mask and CPAP machine.

HOW DO I MAINTAIN THE (HEATED) AIR HOSE?

- Clean weekly.
- Clean the air hose in warm water with a mild detergent (e.g. neutral hand soap).
- Rinse the air hose well and leave it to dry away from direct sunlight and/or heat.
- Once the air hose is dry you can reconnect it.

→ **Tip:** clean the air hose in the morning to ensure that it will be dry by night time.

→ **Tip:** check for small cracks/tears whilst cleaning the air hose.

HUMIDIFIER (WHERE APPLICABLE)

WHO WILL BE GIVEN A HUMIDIFIER AT THE START OF THE TREATMENT?

- People suffering from chronic nasal congestion
- People suffering from certain allergies

WHO MIGHT BE GIVEN A HUMIDIFIER LATER ON?

If, when already using a CPAP machine, you permanently suffer from one of the following:

- nasal congestion
- nasal colds
- a runny nose
- dry sinuses and throat

These problems often manifest themselves at the start of the treatment, but should disappear after a while (4 weeks).

HOW DO I CONNECT THE HUMIDIFIER?

The humidifier fits directly onto the CPAP machine.

To connect the humidifier you first need to remove the side cover on the right hand side of the CPAP machine.

The humidifier will start automatically when the CPAP machine is switched on.

HOW DO I ADJUST HUMIDIFICATION?

The Climateline consists of a heated hose, which creates the right temperature.

Climateline AUTO is the standard setting to optimise the therapy. This setting is adjusted in advance.

The temperature and humidity level are automatically controlled.

HOW DO I REFILL THE HUMIDIFIER?

Remove the reservoir from the machine to refill it. Never refill above the maximum indication.

WHAT DO I USE TO REFILL THE HUMIDIFIER?

Do not use mains water.

Use:

- demineralised water (same as for an iron)
- a Britta filter (replace the filter in good time)
- bottled water (is an expensive option, only use it in an emergency).

When cleaning the reservoir all the water needs to be replaced.

HOW DO I MAINTAIN THE HUMIDIFIER?

Stagnant warm water will allow bacteria and mould to multiply over time, which is why the reservoir needs to be meticulously cleaned every 2 days:

- Empty the reservoir and clean by hand using lukewarm water with a little washing up liquid.
- Rinse the reservoir thoroughly and leave it to dry.
- Refill the reservoir with clean water.

In the event of lime scale: leave to soak for 30 minutes in a warm water and vinegar solution and then rinse thoroughly.

GENERAL QUESTIONS

WHAT SHOULD I DO IF THE SKIN UNDERNEATH THE MASK BECOMES IRRITATED?

- Make sure your mask isn't too tight.
- Don't apply cosmetics (creams, lotions) underneath the mask.
- Wash and dry your face well before you go to bed.

WHAT IF I SUFFER FROM SKIN INJURIES?

Skin injuries are always the result of incorrect use, usually because the mask is too tight.

Contact the Centre for Sleep Disorders.

WHAT TEMPERATURE SHOULD I MAINTAIN IN MY BEDROOM?

- In a cold bedroom the air injected into the nose soon becomes too cold and too dry. This leads to nasal congestion or a runny nose, sometimes even to nosebleeds and other airway problems.
- A dry nose and throat can also occur if the bedroom is too warm.
- The ideal temperature is 18°C or slightly higher.
- Sometimes it is enough to open the bedroom door to create the right temperature.
- Sleeping with the window open is, therefore, only advisable during the warm summer months.

WHAT SHOULD I DO IN THE EVENT OF AN ACUTE COLD OR BLOCKED NOSE?

Ask your doctor or pharmacist for a nasal spray for short term use. In some cases it may not be possible to use the CPAP machine for a few days.

HOLIDAYS AND TRAVEL

AIR TRAVEL

A CPAP machine can be taken as [hand luggage](#).

You will have received a declaration from us to use when you check in for flights. Always remember to keep this declaration with your machine when travelling.

WHAT SHOULD I TAKE WITH ME?

- Always take your CPAP machine and its accessories with you.
- In some cases you may need an adaptor and extension lead.
- The apparatus will automatically switch between 110 and 220 Volt AC.
- For usage in a mobile home, truck or car: ask the nurse for more information.

IN HOSPITAL

I HAVE TO BE ADMITTED TO HOSPITAL

- Always take your CPAP machine with you when you are admitted to hospital.
- Also use your CPAP machine when sleeping in hospital.
- Administration of oxygen is NOT a replacement for your CPAP machine. Connecting an additional oxygen supply to your mask is always possible with an adapter.
- Tell the physician who is treating you that you have to use a CPAP machine, before you are admitted to hospital.

I NEED AN OPERATION

- Always tell the surgeon and anaesthetist in advance that you have to use a CPAP machine.
- Take the CPAP machine with you to the operating wing. It can then be used immediately after the operation in the recovery room.
- If you use a CPAP machine, you will normally be kept in the recovery suite or intensive care unit for one night for observation following an operation involving an anaesthetic.

CONVENTION ARRANGEMENTS

WHAT ARE CONVENTION ARRANGEMENTS?

If you suffer from a severe form of sleep apnoea, part of the cost of your treatment will be reimbursed by your health insurance fund. The hospital will deal with the application for reimbursement.

WHICH SERVICES WILL BE FREE OF CHARGE?

On loan from the hospital will be the following:

- an appropriate CPAP machine for your treatment
- a specially adapted mask
- a flexible air hose
- a carrier
- where necessary a humidifier

The hospital will cover any repairs or replacement in the event of defects. Never attempt to repair your machine or accessories yourself.

You can call us on 016 34 25 20 or visit the Centre for Sleep Disorders in person on any working day between 09.00 and 16.00 if you have further questions or require support.

WHAT WILL I HAVE TO PAY FOR?

Your own contribution (REM patient contribution) will be approximately 0.25 € per day. You will receive an invoice from the hospital every month. If you wish to do so, you can request to pay by direct debit via medische.administratie@uzleuven.be.

Please note: if you request to pay by direct debit this will then be applied not only to the CPAP machine, but to all UZ Leuven invoices.

WHY DO I HAVE TO ATTEND ANNUAL CHECK-UPS?

Your request for (convention) reimbursement has to be renewed the first time after 3 months, and annually thereafter.

The following will be checked:

- whether the treatment is working properly;
- whether the treatment needs to be adapted;
- whether you use the machine often enough (counter reading).

WHAT IF I DON'T USE MY MACHINE OFTEN ENOUGH?

Research has shown that if the machine is not used regularly or for long enough, it will not be effective.

That is why health insurance funds have decided to no longer reimburse the treatment for people who use the equipment infrequently

➔ i.e. the convention arrangement will cease.

A **single** attempt to try again for 3 months will be allowed.

WHAT IF MY CONVENTION ARRANGEMENT IS STOPPED OR REFUSED?

- In that case you will have to return your CPAP machine and accessories to the hospital.
- Further treatment will then be entirely at your own expense.
- Monitoring and support: consultations will have to be arranged at your initiative.

WHAT HAPPENS IF I NO LONGER COMPLY WITH MY HEALTH INSURANCE FUND REQUIREMENTS OR DO NOT ATTEND CHECK-UP CONSULTATIONS?

- Reimbursement of the treatment by the health insurance fund will cease.
- The hospital will notify you accordingly by registered letter. Within 14 days of dispatch of the letter the CPAP machine and accessories will have to be returned in satisfactory condition to the Centre for Sleep Disorders.
If you fail to do so, you will be charged 800 € to cover the cost of the material.
- You can, if you wish to do so, continue the treatment at your own initiative. Any equipment and consultations will then be entirely at your own expense.

WHAT WILL HAPPEN IF MY CPAP MACHINE FAILS DUE TO INCORRECT USE, POOR MAINTENANCE, OR IT IS NOTED THAT PEOPLE ARE SMOKING IN ROOMS WHERE THE MACHINE IS USED OR STORED?

You will be charged for the full cost of the equipment, which can be as much as 800 €.

If your treatment continues and your convention arrangement is up to date, you will subsequently be provided with replacement equipment.

CONNECTED CARE

WHAT IS CONNECTED CARE?

The CPAP machine is linked via an in-built modem and secure online connection to the Centre for Sleep Disorders. The latter will be able to check data online and adjust the settings on the CPAP machine.

ADVANTAGES OF CONNECTED CARE

- The treatment is monitored more effectively and can be adapted more quickly.
- You will receive telephone back-up and support in the event of problems.

PRACTICAL MATTERS

- The sleep laboratory will activate the modem; you don't have to do anything.
- Leave the CPAP permanently plugged in to the mains.
- The hospital will pay any data transmission charges.
- Any relevant data will be automatically transmitted one hour after you have switched off your CPAP machine.

PRIVACY

Only doctors and nursing staff at the Centre for Sleep Disorders will be authorised to access your data. Data transmissions and storage are executed in accordance with European and Belgian data protection and privacy legislation.

Connected care is mandatory for health insurance reimbursements.

ADDITIONAL INFORMATION

For information concerning the use of the equipment and treatment related problems:

- on working days from 09.00 to 12.00 and 13.00 to 17 .00 hrs
- Tel. 016 34 25 20

To make or change an appointment:

- on working days from 09.00 to 12.00 and 13.00 to 17 .00 hrs
- Tel. 016 34 25 22

In the event of problems please call us on 016 34 25 20.

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