



# The CPAP-device

Treatment of obstructive sleep apnea

Sleep lab

Afdeling I3



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## 02 Welcome

This brochure gives you general information about the CPAP treatment.

If, after reading the brochure, you still have questions about it, feel free to ask.

You will find our contact details at the end of this brochure.

Sleep lab

## 03 CPAP treatment

### What is apnea?

- Apnea = period when breathing (temporarily) stops.
- 2 types:
  - **Central apnea:** no signal comes from the brain.
  - **Obstructive apnea:** blockage of breathing due to closing of the upper airways (throat).
- Obstructive apnea during sleep = OSAS
- OSAS = Obstructive Sleep Apnea Syndrome
- Consequences of OSAS:
  - The breathing stop causes you to wake up briefly (3 seconds or longer) but you are usually not aware of this.
  - Your sleep is disturbed, deep sleep is not achieved.
  - You haven't slept in in the morning and you easily fall asleep during the day.

### What is CPAP?

- CPAP = Continuous Positive Airway Pressure.
- Air is continuously blown into your airways to keep them open. There is a constant positive pressure in the airways.



## Why and when to use a CPAP device?

- Normal breathing: when inhaling there is a negative pressure in the airways → throat closes more easily → **SNORING + APNEA.**
- With CPAP: pressure in the airways remains positive → throat remains open → **NO snoring + APNEA.**
- Use every night throughout the night otherwise the treatment will not be effective.
- Using the device is a treatment, not a cure!
- When NOT used, the symptoms return immediately: snoring, apnea, fatigue.
- In mild forms of sleep apnea, losing weight is sufficient to resolve sleep apnea. In severe forms, losing weight can reduce the pressure that is needed.

## When effect?

- Most people experience an effect within a week (if the treatment does not cause any problems).
- If you have a lot of sleep deprivation, it takes a little longer before the effect is maximal.
- You and your body have to adapt → give it time and persevere.
- After 4 weeks there should be a clear improvement if treatment is going well.
- If there were few or no complaints of fatigue, the feeling of improvement is more difficult to feel.
- If the treatment does not go so smoothly in the first weeks, the effect will usually also come very gradually.

**Use**

- Always make sure that the plug is plugged in.
- Place the device on a table/cabinet next to your bed, close by, then you have more freedom of movement with the air hose.
- In a dust-free place.
- When switched on, the device starts blowing at a lower pressure to make it easier to fall asleep. Automatically goes to the pressure you need to stop your sleep apnea.

**Maintenance**

- Wipe weekly with a slightly damp, lint-free cloth.
- Never soak in water.
- Clean the dust filter weekly:
  - Wipe off dust, DO NOT rinse under water;
  - Replace;
  - Use new every 6 months (see white bag in carrying case);
  - If no spare filter left: call sleep lab.

## 05 Accessories

### Mask with headband

- There are different masks, depending on nose, face ... a mask is chosen that is best for you.
- We stock masks of different brands and sizes, all masks are of the same, good quality.
- Put on mask: put mask on nose and then fasten strap (some masks have a click or hook-in system).
- The mask should **NEVER** be tightened but no air should escape either, there should be no leaks. Tightening the mask harder will cause creases in the mask edge, increasing the risk of leaks, skin lesions and faster wear of the mask.
- Always tighten straps left and right equally.
- If visiting the toilet at night, you can leave the mask on and disconnect the air hose from the mask.

### Maintenance

- Mask: wash out every 2-3 days with baby shampoo if necessary, no other shampoos or disinfectants such as Dettol.
- Headband: hand wash weekly.
- Pat dry with a dust-free cloth and allow to air dry, never in the sun or on a heater.
- Do not use lotions or facial creams just before putting on your mask → risk of skin irritation.
- Tip: clean the material in the morning, then it will be dry in the evening!

## The air hose

- Has 2 same ends:
  - 1 connect to the mask
  - 1 connect to the CPAP device



## Maintenance

- Rinse 1x per month (smokers 1x per week), may also be immersed in lukewarm water with some baby shampoo and then rinse well, hang to dry. Also check the air hose regularly for any cracks.

## Humidifier

- At the beginning of treatment with a CPAP device, complaints such as a stuffy nose, runny nose, nasal cold or dry nose and/or throat can occur.
- Usually these complaints disappear after a while (max. 4 weeks).
- If the complaints are permanent or very intense, a humidifier is added to the device.
- Always use demineralized water (iron), britta filter (replace in time), bottled water (only in emergency).
- Pour out the rest of the water every day and use new water in the evening (stagnant warm water can breed germs and mold). Soak in lukewarm water with some vinegar, dishwasher.



- Water consumption can vary from day to day, depending on the humidity level of the bedroom and the environment.
- CPAP device with humidifier must always be lower than your head otherwise water (condensation) can run into the mask.
- The humidity level can be adjusted through my options (possibly see also manual).

## 06 General questions

### Skin irritation under mask

- Do not over tighten the mask.
- Wash and dry your face well before going to bed.
- Do not use creams or lotions just before putting on the mask.
- With small wounds, a piece of "Compeed" or protective film (Cavillon, Opsite) can sometimes help.
- Sometimes the treatment has to be stopped for a while to allow the wounds to heal.
- If you have wounds, always contact the sleep lab nurse.

### Cold or stuffy nose

- Occurs frequently at the beginning of treatment, should be better after 2 weeks.
- Nasal spray Mometasone may be used for a short period of time.
- If the problem persists: contact the sleep lab nurse for a humidifier.
- In the case of severe nasal colds, it is sometimes necessary to stop the treatment for a few days.

## Temperature room/window open

- In a cold bedroom, the air that is blown into the nose is quickly too cold. This causes a stuffy or runny nose.
- In a bedroom that is too warm, the air is too dry, which causes a dry throat and nose.
- Sometimes it is enough to open the door to the rest of the house.
- Placing the air tube under the covers can help.
- Sleeping with the window open in winter also causes the same problem of too cold air being blown.

## Going on a trip?

- **ALWAYS** take your CPAP device and accessories with you.
- Always put it in your hand luggage - take a customs certificate with you.
- Think about a travel plug.
- Devices automatically switch between 110 and 220 volts.
- An inverter may be needed for a car or mobile home.
- For information and extras: <https://vitalaire-winkel.nl>

## Admission to hospital/surgery

- Always take your CPAP device with you when you are admitted to hospital.
- Also sleep in the hospital with your CPAP device.
- E.g. oxygen can be connected to mask.
- Always tell your treating doctor/surgeon that you have sleep apnea and use a CPAP device.
- Also take the device with you to the operating room. It can already be used in the recovery room.

## My device or an accessory is broken

- If you are in the convention, simply contact the sleep lab on 011 69 97 18 or 011 69 97 19 and we can make an appointment for repair or replacement. If necessary, you can also call the pneumology secretariat on 011 69 96 15.
- Never attempt to repair your device or accessories yourself.

## 07 The refund/convention

### What is the convention?

- If you suffer from sleep apnea, you will be reimbursed part of the costs of the treatment by your health insurance.
- We apply for a refund.
- What do you get:
  - You will receive a CPAP device from us that you rent from VitalAire. The rent is paid by the convention.
  - You will receive an adapted mask, air tube, carrying bag and possibly a humidifier.
  - We provide repair or replacement in the event of defects or wear and tear.
- The initial reimbursement approval is valid for 3 months. You will be called back before that period to make an appointment to make a new application. You always bring your device and accessories to this consultation. These 3 months start the day after your second sleep study.
- If you use your device too little, <4 hours per night, an application can be made for three months, which must show that you have used your device for >4 hours. If so, the doctor can reapply for reimbursement for another 12 months. You will then retain your refund provided that you use your device on average >4 hours in the next two consecutive periods of 12 months.

- If you have used your device for <4 hours/day anywhere on inspection, you will be suspended for reimbursement for 1 year. You will then have to cover all costs yourself (purchase device, mask and accessories).

## **What do you have to pay yourself?**

- The co-payment or personal contribution is 0.25 euros per day.
- That comes to about 7.5 euros per month for which you receive a monthly invoice from the hospital.
- Additional accessories such as cables for car or mobile home, plugs, converters ... you have to purchase yourself. This can be done via the VitalAire website (see above).
- Demineralized water for the humidifier.
- Bandages and medication for skin or nose problems.

## **Why do I have to go for a check-up every year?**

- The application for reimbursement (convention) must be renewed every year. In doing so, a sleep doctor must check:
  - whether your treatment is working well;
  - whether adjustments need to be made to the treatment;
  - whether you are following the set treatment properly. We must send along the counter readings of your device to request a renewal of the approval.
- The sleep lab nurse will check the device and counter readings, including the accessories; you will be given a new mask and filters.

## 08 Treatment tips

- Use your device every night and preferably all night. Always take it with you when you go to sleep elsewhere.
- Maintain your device and accessories properly.
- Lead a healthy and regular life:
  - Maintain a healthy and varied diet.
  - Get at least half an hour of exercise every day.
  - Watch your weight; losing weight improves your sleep apnea.
  - Try to go to bed and get up at a fixed time.
  - Stop smoking.
  - Moderate your consumption of alcohol.
  - Maintain good sleep hygiene.

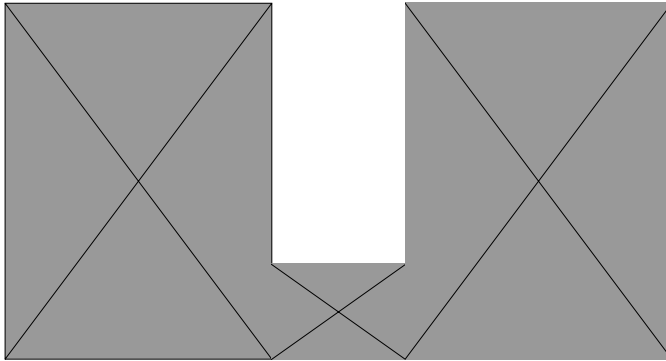
- Do not drink coffee or cola (including diet or zero) 4 to 6 hours before you go to sleep.
- Do not use nicotine before going to sleep or during the night.
- Do not drink alcohol 4 to 6 hours before going to bed.
- Don't do any major body exercises before you go to sleep.
- Don't go to sleep feeling hungry or overfull.
- Take time to transition from day to night. Build a routine with activities you do every night before you go to sleep, e.g. quiet music, warm bath. This way your body prepares for the night ahead.
- Go to sleep only when you are really tired.
- Keep the bedroom for sleeping and sex.
- Avoid light, noise (computer, TV, smartphone, tablet, ...) and extreme temperatures in the bedroom.
- In case of sleep problems, turn the alarm clock away from you.
- If you are still not asleep after 30 min, get up and leave the room.
- Avoid naps during the day.

We wish you good luck with your treatment and the CPAP device.

## 10 Help with CPAP problems

### Mask does not fit onto the air hose

Check if both ends of the air hose are the same and ensure you completely remove the old parts from the hose before attaching the new mask.



### Skin irritation under the mask (redness, sores, pain)

This may be caused by an allergic reaction, a mask that is too small, or by the mask being too tight.

- Make sure not to pull the mask too tightly (you should be able to fit a finger between the straps and your skin).
- Keep your skin clean before putting on the mask.
- Clean the mask at least twice a week with lukewarm water and mild (baby) shampoo. Let it air dry naturally, do not rub it dry.

### Air hose disconnects from the mask

If the rubber ends of the air hose no longer hold well, you can use a zip tie to secure the hose. Contact the sleep lab to pick up a new hose.

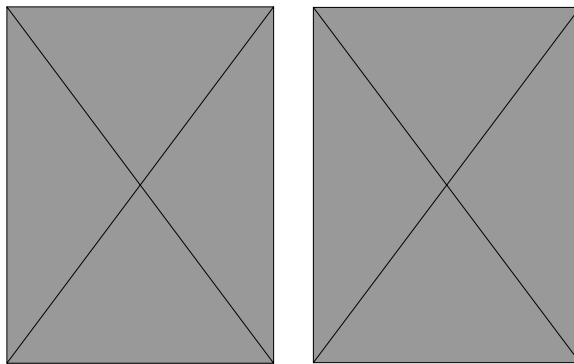
## Feeling claustrophobic

- Don't panic.
- Try wearing the mask while doing something distracting, like watching TV.
- We can also offer you a different mask and slightly adjust the pressure. Make an appointment with the sleep lab (during office hours) for further help.

## Heated hose not working

Check if the connector is properly attached and if the chip is inserted in the correct slot (see image).

If there is condensation in the hose or mask, increase the temperature of the heated hose. Contact the sleep lab (during office hours) if you need further assistance.



## Mask comes off unconsciously during sleep

Check if there is something wrong with the mask, such as air leaks or pain. Make sure your nose is clear before sleeping. If problems persist or if you have a blocked nose, make an appointment with the sleep lab.



## **Dry mouth/throat or blocked nose**

This can be caused by breathing through your mouth, dry air, or high pressure settings. Rinse your nose before going to sleep and consider using a nasal spray (e.g. Mometasone).

A chin strap can help prevent your mouth from opening.

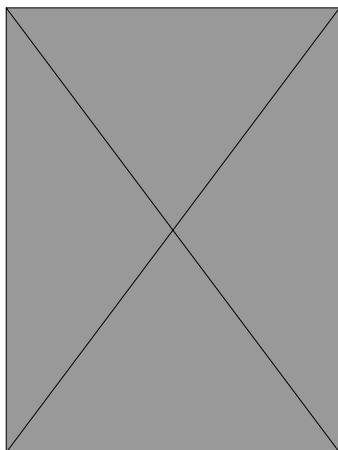
Consider using a humidifier to make the air less dry. Make an appointment with the sleep lab (during office hours) for further assistance.

## **High air leaks around the mask**

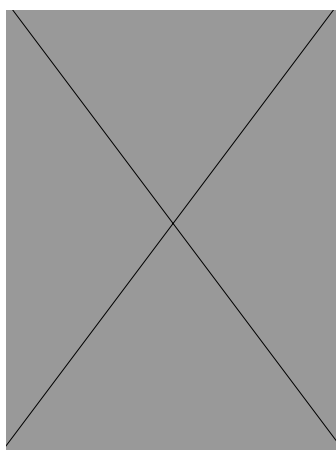
It is normal for air to escape through the ventilation holes in the mask, but not around the edges. Tighten the mask slightly and ensure your beard or moustache is trimmed. Check that the mask is properly assembled. The elbow should be on your device, not on the mask.

Ask your partner if you sleep with your mouth open. A chin strap can help with this.

Contact the sleep lab (during office hours) if you need further assistance.



WRONG



RIGHT

## **Water in the hose or mask**

This may be due to condensation or the humidifier. Ensure the room isn't too cold and keep the air hose under the blankets. Lower the humidifier setting if needed. Contact the sleep lab if you need assistance.

If necessary, we can offer a heated hose to increase the temperature.

## **Water under the device**

This indicates a faulty humidifier. Dry everything thoroughly and remove the humidifier. Use the device without the humidifier for the time being and contact the sleep lab for a replacement.

## **Bloating or air in the stomach**

The pressure may be too high or using a full-face mask may worsen the issue. Try sleeping with your head slightly elevated. Contact the sleep lab to adjust the pressure or to enable the EPR function.

## Recurring snoring

Snoring can be caused by weight gain, a poorly fitting mask, alcohol consumption, nasal blockages, or incorrect pressure settings on the device. Make an appointment with the sleep lab to have this checked.

## Problems with the device

- The device is no longer working.
  - Try a different socket and check if the light on the plug bar comes on.
- Message: "Service life exceeded, contact service."
  - The device has reached a certain number of operating hours.
  - If the device is still working normally, you don't need to take any action. Your device may be replaced at your next CPAP consultation.
  - If the device is no longer functioning properly, contact the sleep lab during office hours.
- Blowing/buzzing sound.
- Have the device checked at the sleep lab and replaced if necessary.

If you still encounter issues, don't panic.

We understand that sleeping with CPAP can be uncomfortable, but it is not life-threatening.

Contact us during office hours via phone or email. We work by appointment only. To reach the sleep lab, follow route 165.

If you cannot wait until Monday because your device/ mask is broken (and you don't have a spare mask), you can call ward G2 on Saturdays and Sundays at 011/69.97.30.

## Notes

[illegible]

[illegible]



## Questions?

Responsible sleep lab nurses

Cindy - Francine - Inge - Kathleen - Nele - Sanne

phone: 011 69 97 18 or 011 69 97 19

email: slaaplabo@stzh.be

Chief nurse department F2/ sleep lab - Fabienne

phone: 011 69 98 11

Treating doctors - dr. K. Demuynck - dr. J. Leemans

phone: 011 69 96 15



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