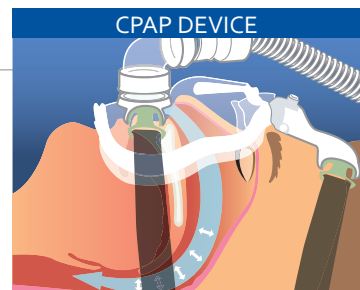


PAP Therapy—Tips for Troubleshooting to Address Problems with Use

Positive airway pressure therapy (CPAP or biPAP) is used to treat obstructive sleep apnea (OSA). A machine is used with a mask to blow pressurized air into the air passages. This helps keep the person's air passages from collapsing, allowing him or her to breathe better during sleep. This pressurized air is delivered through a tube to a mask that fits over the person's nose or nose and mouth.



Sometimes nasal pillows that fit into a person's nostrils are used instead of a mask. PAP therapy is a very effective way to treat OSA, but people sometimes can have problems with the machine and/or mask/nasal pillows. It is important to promptly address any problems that prevent you from using PAP therapy. The purpose of this fact sheet is to offer tips to troubleshoot some common problems related to PAP therapy. (For more information on OSA and PAP therapy go to the ATS patient information series at www.thoracic.org/patients)

Problem: How do I get my PAP mask on right?

- Step 1: Turn on the PAP machine. You will hear and feel air blowing out of the mask.
- Step 2: Place the mask on your face. When the mask makes an effective seal with your face, you will no longer hear air blowing out of the mask.
- Step 3: Adjust the headgear (straps that hold the mask onto your face). If there are two straps (one by the forehead and one by the lower jaw), start by adjusting the top strap first.
- Step 4: Adjust the bottom strap. You want the straps to be tight enough so when you move your head, you do not feel or hear a leak of air from the mask. You don't want the straps to be too tight. Straps that are too tight will push the mask into your face, causing pain. Also, straps that are too tight will actually increase leaks from the mask.

Possible Solutions:

- The headgear should be adjusted on a regular basis, since it does start to stretch out over time. It may need to be replaced if it has worn out and you can check how often a replacement is covered with your insurance.
- If the mask still does not fit, you may want to talk to your home care company or healthcare provider about being fitted for a different mask. Many different options are available as each person's face is not the same.

Problem: Why does my mask leak in the middle of the night?

Most people do not sleep in only one position at night. Many OSA patients hear and feel leaks from the mask after they have rolled over in bed. This often happens because the tubing pulls on the mask, causing the mask to leak.

Possible Solutions:

- One solution is to lay the PAP tubing on top of your chest and cover it with your blanket. This way, the tubing does not pull on the mask. Also, when you turn in the middle of the night, the tubing will turn with your body and not pull on the mask.
- There are some commercially available PAP tubing holders that support the tubing and minimize any pulling on the mask.
- You may also wish to readjust the headgear (as above) if there are mask leaks in the middle of the night.
- Sometimes when you turn at night, your sleeping pillow may push your mask out of place. There are commercially available sleeping pillow options designed for PAP users with cut-outs or indentations designed to accommodate a PAP mask.

Problem: Why do I have water in my tubing?

Water (condensation) can collect in the tubing at night. This happens when the temperature of the air in the tubing is much warmer than the temperature of the air outside the tubing.

Possible Solutions:

- Decrease the heat setting for the heated humidifier in your PAP machine,
- Increase the temperature of your bedroom,
- Use heated PAP tubing (if available for your PAP machine),
- Insulate the PAP tubing. There are commercially available fleece covers for PAP tubing that provide insulation. As above, you can also lay the PAP tubing on top of your chest and cover it with your blanket. Your body heat and the blanket will provide the insulation needed to reduced condensation or water in the tubing.

Problem: Why do I have pain in my stomach or excessive gas with PAP?

The air from the PAP machine is delivered to the air passages. Sometimes, instead of the air going through the air passages and down into the lungs, the air can go into the esophagus, causing a person to swallow air (aerophagia). This can lead to stomach pain and bloating, burping, or passing gas from below.

Possible Solutions:

- To decrease air swallowing, try changing the position in which you sleep. For example, if you sleep on your back, try sleeping on your side or vice versa.
- If you sleep on one pillow, try sleeping on two or more pillows or vice versa.
- Some PAP machines have a patient controlled setting that will allow you to decrease the pressure slightly upon exhalation (when you breathe out), which may decrease air swallowing. There are other types of machines that can help with air swallowing. An auto-titrating PAP machine uses a range of pressures during the night. The machine tries to use the lowest effective pressure setting. Sometimes with lower pressure settings, patients experience less air swallowing. Another machine that can sometimes help patients with air swallowing is a bi-level PAP machine. This type of machine gives the patient one pressure setting with inhalation (breathing in) and a lower pressure setting with exhalation (breathing out). You will need to speak with your healthcare provider to see if a different type of machine (such as an auto-titrating PAP or bi-level PAP machine) is right for you.

Problem: How can I get used to falling asleep with my PAP machine?

Many people take some time to get used to sleeping with their PAP machines. The more you use your PAP, the easier it becomes.

Possible Solutions:

- Try to practice good sleep habits- avoid excessive caffeine during the day, avoid daytime naps, make sure your bedroom is dark and comfortable, and keep your bed for sleeping (not for watching television, reading, or using your smartphone or computer).
- Some people try putting on their PAP during the day while sitting on a chair or sofa while reading or watching television to get used to the sensation of PAP.

Problem: What do I do when my PAP pressure feel too high?

It is not unusual for people to feel that their PAP setting is too high when they first start using a PAP machine. Many people get used to the pressure setting over time.

Possible Solutions:

- If this remains a problem, you can use the "ramp" function on your PAP machine. The "ramp" is a patient controlled feature on your PAP machine. You may start the PAP machine at a lower pressure setting and then have the PAP "ramp" up (or increase) to the effective pressure setting over time while you are falling asleep.
- You may also want to use the patient controlled setting on your PAP machine (if available) that allows you to slightly decrease the pressure setting when you breathe out.
- You may also want to speak to your health care provider about whether an auto-titrating PAP or bi-level PAP machine is right for you.

Problem: What do I do when my nose or mouth is dry?

Most PAP machines have an attached heated humidifier. The warmer the setting on the heated humidifier, the more moisture is provided to the pressurized air from the PAP machine. You should adjust your humidifier setting for your comfort.

Possible Solutions:

- Make sure your PAP humidifier is working properly. If you do not have a humidifier, ask your medical supply company or health care provider about getting one.
- If you are using a nasal mask (that covers your nose only) or nasal pillows, you may be opening your mouth during sleep. In this case, the air from the PAP machine will go in through your nose and out your mouth, leading to mouth dryness. One solution is a chin strap, which goes around the top of your head and under your chin, causing you to keep your mouth closed.
- You may benefit from changing to a full facemask, which covers both the nose and mouth.
- For persistent nasal dryness, you can try a nasal saline (salt water) spray or gel. If mouth dryness continues, an artificial saliva gel, spray, or mouthwash can be helpful.
- Some PAP machines can use heated PAP tubing where the tubing itself is heated on the inside. This can provide more humidity to the PAP mask which decreases dryness.

Problem: What do I do for a runny or stuffy nose?

Sometimes when cool, dry air from a PAP machine is blown into the nasal passages, the nose responds by getting stuffy or runny. There are also times when you may have a common cold or upper respiratory infection which causes a runny or stuffy nose, making it harder to use your PAP machine.

Possible Solutions:

- You may want to increase the heat setting on the heated humidifier. The moister air may be more soothing to the nasal passages.
- Heated PAP tubing may also be useful in this situation.
- If your nose remains runny or stuffy, you may want to speak to your healthcare provider about some prescription nasal sprays for these issues.

With time, patience, and practice, using your PAP machine will become easier. You should never hesitate to contact your healthcare provider if there are troublesome issues that prevent you from using your PAP machine successfully.

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Resources:

Sleep Education- American Academy of Sleep Medicine

<http://sleepeducation.org/essentials-in-sleep/cpap>

National Sleep Foundation

<https://sleepfoundation.org/ask-the-expert/cpap-101-expert-tips-getting-started-continuous-positive-airway-pressure-cpap>

National Heart, Lung, and Blood Institute

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

U.S. National Library of Medicine

<https://medlineplus.gov/ency/article/001916.htm>

American Thoracic Society

<https://www.thoracic.org/patients/patient-resources/resources/cpap-for-osa.pdf>

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