Intermountain® Healthcare

CPAP (Continuous Positive Airway Pressure)

What is CPAP and why do I need it?

Continuous positive airway pressure (CPAP) is the most common treatment for obstructive sleep apnea. In **obstructive sleep apnea (OSA)**, the back of your throat relaxes so much while you sleep that it narrows your airway or even blocks it completely. When this happens, your breathing stops or is very shallow for a few seconds or longer.

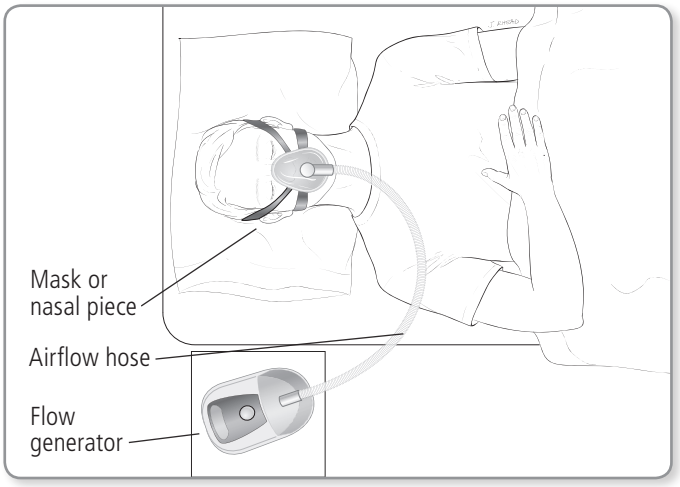
These pauses in breathing can happen frequently — up to 30 times or more each hour. The air that makes it through your airway causes snoring, often so loud that it disturbs your bed partner. OSA is a serious health disorder that increases the risk of high blood pressure, heart rhythm problems, heart disease, strokes, and impotence. It also robs you of deep sleep, so you struggle to stay awake during the day.

CPAP solves this problem by sending a continuous flow of air into your nose as you sleep, to create a air pressure that keeps your airway open. For most people, CPAP is an effective treatment for their OSA. Patients using CPAP often report feeling much better and having more energy.

How does CPAP work?

CPAP produces positive air pressure that keeps your airway open. A CPAP system has 3 general parts:

- A **flow generator**, which filters room air and produces positive air pressure. It's about the size of a tissue box, and makes a quiet, rhythmic sound.
- A **mask or nasal piece** that delivers the filtered air to your nose.
- An **airflow hose** that connects the two items above.



CPAP provides gentle air pressure to keep your airway open.

Before you begin CPAP therapy, the CPAP airflow settings are tested in a sleep lab. While you sleep, the technician adjusts the airflow so the air pressure is just right for you — enough to keep your airway open without being too strong. This can happen in the same sleep lab test used to diagnose OSA, or in a separate session after OSA is diagnosed.

How do I get started with CPAP?

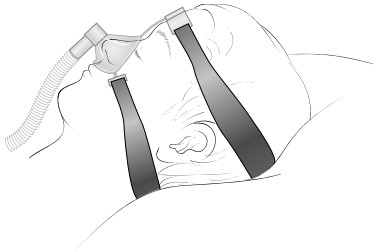
If your doctor prescribes CPAP, you will meet with a home medical equipment (HME) provider. He or she will help you get a good fit with your new equipment and answer your questions about using it. Here are some tips:

- **Tell your HME provider whether you sleep on your back, side, or stomach.** The HME provider can choose tubing that makes it easier for you to sleep comfortably.
- **Be sure to ask questions.** Ask about how to adjust the mask and tubing, how to use the features of the equipment — and any other questions that come up. The more you know, the more comfortable you will be as you start the new therapy.
- **Make sure you get a good seal between your face and the mask.** It's important to make sure the pressurized air doesn't leak out of the mask. If it does, it can irritate your eyes.

Equipment features

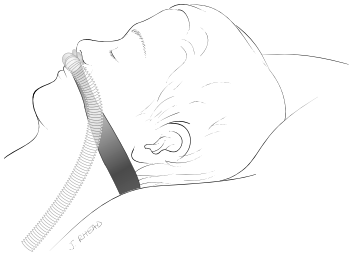
You may be able to choose the flow generator and mask type, based on your prescribed air pressure, your doctor's recommendations, and insurance coverage. Here are some features to consider:

- **Flow generator.** Many flow generators have extra features that can improve your CPAP experience:
  - A **heater and/or humidifier** moistens and/or warms the air to make it more comfortable.
  - A **pressure ramp setting** starts with a lower pressure and gradually increases it as you fall asleep.
  - Some CPAP flow generators have **exhalation pressure relief** (sometimes called C-flex or A-flex) that slightly lowers the air pressure when you breathe out.
- **Mask.** To choose a mask, think about what you liked or didn't like during the sleep study. Consider whether you usually breathe through your nose while sleeping, and whether you move around a lot while you sleep. The three most common mask types are described below.



Nose mask: A mask that covers just your nose is a good choice if you breathe through your nose while sleeping. Straps keep the mask in place. You might also wear a chin strap to keep you from breathing through your mouth.

Nose and mouth mask: A mask that covers your nose and mouth is a good choice if you breathe through your mouth while sleeping, or if you can get a better "seal" between this type of mask and your face.



Nasal pillows. If you have difficulty sleeping with a mask, nasal pillows may be the answer. With this choice, you wear a nosepiece with small, flexible cones that fit into each nostril.

What can I expect after I start CPAP?

Once you begin using CPAP every time you sleep, you will probably begin seeing positive changes in your mood and energy level. At first you might not always get as many hours of sleep. But remember — the quality of your sleep will be much better. Even with fewer hours of sleep, you might begin to feel more rested.

Of course, **as with any change in your life, it can take some time to adjust to CPAP.** The following has some tips to help you get the most from CPAP therapy.

Living with CPAP long-term

As you live with CPAP long-term, you'll need to keep several things in mind — about maintaining the equipment and what to do in certain situations.

Equipment maintenance

To keep your equipment operating well, follow these guidelines.

- **Every day:** Use a damp, soapy cloth to clean the mask seal.
- **Every week:**
  - Empty the humidifier chamber and wash it with warm, soapy water. You may soak the chamber with a solution of 1 part vinegar to 3 parts water for 30 minutes — rinse thoroughly. (Do NOT use cleaning chemicals or bleach.)
  - Clean the hose by soaking it in warm, soapy water for 30 minutes. Rinse it thoroughly and hang it to dry.
  - Check the filter to see if it looks dirty. If a filter is blocked, call for a replacement.

Replacement supplies

Tubing, masks, cushions, pillows, chin straps, filters, and headgear should be replaced regularly to ensure appropriate therapy. Please contact your insurance company to determine how often they will pay for replacement supplies.

Tips for Adjusting to CPAP

To treat your sleep apnea, you need to use CPAP every night and every time you take a nap. As with any treatment, **CPAP helps only if you use it consistently.** If you run into problems at first, don't give up. There are many ways to make things better.

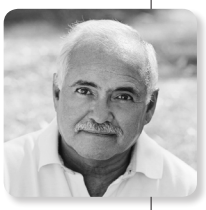
Problem/concern	Possible cause	Tips
Mask is new and uncomfortable; afraid I won't be able to sleep with it	You're not used to the mask. It may take some time to adjust.	• Wear the mask for short periods in the evening for a few days before you start wearing it to bed
Don't like the sound of the equipment		• Get a longer hose • Move the flow generator further away or lower than your bed
Skin irritation, pressure sores, or blisters	The headgear straps might be too loose or too tight, or your mask might not fit well. Your mask may also be worn out or dirty.	• Readjust your headgear straps. The mask should be as loose as possible while still creating a seal. • Talk to your HME provider about the mask fit. You might consider a full-face mask or nasal pillows for a better fit. • Check the mask for stiffness or cracks. Replace the mask if needed. • Wash your face nightly. Wipe off the mask seal daily (see page 4).
Dry throat or dry and stuffy nose, nosebleeds, runny nose	Dry air	• Get a heated humidifier for your CPAP equipment. • Try a saline nose spray at bedtime and when you wake up. • Ask your doctor about a nasal steroid (such as Flonase, Nasarel, or Nasonex) or a nasal spray with ipratropium bromide (such as Atrovent). • Try an oral antihistamine. • This problem may go away naturally over time. If not, call your doctor.
Dry mouth	You might be sleeping with your mouth open.	• Try a chin strap, or consider a full face mask with a heated humidifier.
Eyes that are sore, dry, red, or swollen	Your mask might be leaking air so that it hits your eyes, or your mask might be too tight.	• Try adjusting your headgear straps. Make sure the mask has a good seal with your face, without being too tight. • Wash your face nightly — skin oil or cosmetics can interfere with the seal. • Check the mask for stiffness or cracks. Replace the mask if needed.
Swallowing air, bloating	The pressure might be more than you can take in as you go to sleep, or you may be sleeping with your mouth open.	• If your CPAP equipment has a pressure ramp feature, use it. • Consider using a chin strap. • This problem may go away naturally over time. If not, talk to your doctor about bilevel positive airway pressure (BPAP) or autotitrating positive airway pressure (APAP) equipment.
Sinus or chest discomfort or difficulty breathing out	The pressure might be more than you can take in as you first go to sleep.	• If your CPAP equipment has a pressure ramp feature or exhalation pressure relief (C-flex or A-flex), use it. • If this problem doesn't go away over time, talk to your doctor about bilevel positive airway pressure (BPAP) or autotitrating positive airway pressure (APAP) equipment.
The flow generator is noisy	The air filter might be blocked.	Check to make sure the air filter is clean and not blocked by outside items.
Your bed partner doesn't like the equipment	Your bed partner might not understand how important CPAP is to your health.	• Give your bed partner this pamphlet and other materials that explain sleep apnea and CPAP (see page 4 for resources). • Get your partner involved in a patient support group (see page 4). • Ask your bed partner to be patient. As you begin to use CPAP regularly, he or she will see positive changes that make up for any inconvenience caused by the equipment.

What to do in special situations

Follow the guidelines below on using CPAP while you're traveling, having surgery, or getting over a cold:

- **If you travel,** take the equipment with you — you should keep using CPAP therapy even if you're away from home for just one night. If you're flying, it's a good idea to take the CPAP unit as a carry-on item. Because it's a piece of medical equipment, you should be able to have it in addition to your one allowed carry-on bag. And in most cases, you should have no problem taking it through security. If for some reason the unit doesn't pass the security check, the staff will just check it for you.
- **If you have surgery,** bring your CPAP equipment with you. Healthcare providers in the recovery room can put it on you to help you breathe as you come out of the anesthesia.
- **If you have a cold or sinus infection,** try to continue the CPAP — using an oral decongestant or antihistamine can help. And make sure to clean your CPAP equipment (see page 3) to make sure it doesn't re-infect you.

Using CPAP was an adjustment, but it literally changed my life. My blood pressure is down, and I've stopped having headaches. At first my wife wondered about it, but within a week she was sold. It didn't interfere with our love life. And I have so much more energy now. The bonus — I can watch a whole movie without falling asleep!



— *Joe,* CPAP user for 3 years

Need help or have questions about your equipment?

Please call your HME provider:

Name: _____

Phone: _____

Talking with your doctor about CPAP therapy

The table below lists the most common potential benefits, risks, and alternatives for CPAP therapy. Other benefits and risks may apply in your unique medical situation. Talking with your doctor and other healthcare providers is the most important part of learning about your treatment. Don't hesitate to ask questions.

Potential benefits	Risks and potential complications	Alternatives
Benefits of consistent CPAP therapy can include: • Better concentration • Less daytime drowsiness • Better mood, fewer symptoms of depression • Less snoring • Reduced risk of several serious health conditions, including heart disease, stroke, and diabetes	CPAP therapy is extremely safe. Any complications can usually be addressed by making adjustments (see troubleshooting table on page 3). Complications can include: • Skin irritation, sores, eye irritation, or air leaks if the mask doesn't fit well or rubs your face • Nasal congestion • Dry or sore throat • Swallowed air, which can lead to gassiness or bloating	Alternatives to CPAP therapy include: • Autotitrating positive airway pressure (APAP) • Bilevel positive airway pressure (BPAP) • Dental appliances that hold the tongue up and/or forward • Surgery to shrink, stiffen, or remove tissue from the back of the throat

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