

Snoring...

Waking at Night...

Daytime Sleepiness...



**You may have
Obstructive Sleep Apnea**



What Now?

**Find out more about the Symptoms,
Diagnosis, and Treatment of
Obstructive Sleep Apnea**

Contents

| | |
|---|----|
| What is Obstructive Sleep Apnea (OSA)? | 1 |
| What are the symptoms of OSA? | 2 |
| How is OSA diagnosed? | 2 |
| What are the treatment options for OSA? | 3 |
| What are the benefits of using CPAP Therapy? | 4 |
| Getting into the mindset to use CPAP | 6 |
| Sleep Apnea Facts and Myths ¹ | 7 |
| How do I obtain a CPAP Machine? | 8 |
| Common Obstacles to Using CPAP ¹ | 8 |
| Ways to Improve Regular Use of CPAP | 13 |
| Before You Travel/Deploy | 14 |
| How to Travel/Deploy with Your CPAP Machine | 14 |
| Service-Specific Regulations | 15 |
| CPAP Cleaning and Maintenance | 17 |
| General Recommended Safe Practice Cleaning Tips | 18 |
| References | 21 |

Diagnosis of Obstructive Sleep Apnea (OSA) usually leads to many questions. This booklet contains information about OSA, how it is diagnosed and treatment options. Extensive information is included about the most common treatment therapy for OSA called Continuous Positive Airway Pressure (CPAP), how to adjust to sleeping with a CPAP machine, and how to maintain a CPAP Machine.

What is Obstructive Sleep Apnea (OSA)?

Obstructive Sleep Apnea (OSA) affects many military personnel and Veterans. OSA occurs when the muscles of the upper airway relax during sleep, obstructing or blocking the airway. This makes it hard to breathe air into the lungs, which causes the body's oxygen level to drop. This can cause many health issues, such as high blood pressure, heart disease, stroke, or death.

Loud snoring that bothers your bed partner, gasping, and choking at night are symptoms suggestive of sleep apnea. During the day, you may have sleepiness at work, while driving, fatigue. There are many treatments for OSA that are discussed in this booklet. If you think you have OSA, you should let your healthcare provider know. In order to diagnose OSA, a sleep study is required.



What are the symptoms of OSA?

If you experience one or more of the symptoms below, you would benefit from discussing your symptoms with your healthcare team.

- Complaints of sleepiness, sleep that is not sufficiently refreshing or restorative, fatigue, or insomnia.
- Excessive daytime sleepiness that may cause you to fall asleep during work, while watching television, while driving, and causes difficulty concentrating during the day.
- Snoring loud enough to disturb your sleep or that of others. Note: not everyone who snores has obstructive sleep apnea.
- Waking up gasping or choking.
- Being overweight.
- Your bed partner or other observer reports habitual snoring, breathing interruptions, or both during your sleep.
- You have been diagnosed or are being treated for high blood pressure, coronary artery disease, stroke, congestive heart failure, atrial fibrillation, or type 2 diabetes mellitus.
- You have been diagnosed with a mood disorder or trouble with attention, verbal and nonverbal learning, short-term memory, or problem-solving.

How is OSA diagnosed?

There are two sleep study options for diagnosing OSA:

- In-Lab sleep study.
- At home sleep apnea test (HSAT).

Both studies measure the oxygen levels and the number of times per hour breathing stops. Apnea-hypopnea index (AHI) will be used to determine the presence and severity of OSA. A positive diagnosis for sleep apnea is an AHI of more than five events per hour with symptoms of sleep apnea.

What are the treatment options for OSA?

Positive Airway Pressure (PAP) therapy

PAP is the primary and most effective treatment for OSA. A PAP machine delivers normal air through the nose and/or mouth to keep the airway open to allow for normal breathing whenever you are sleeping.

- Fixed-pressure continuous positive airway pressure (CPAP) uses only one pressure level that doesn't vary over time.
- An automatic positive airway pressure (APAP) machine determines how much pressure is required to keep the airway open and adjusts during sleep.
- In this booklet, CPAP will be used to refer to any form of PAP.

Mandibular Advancement Device (MAD)

The MAD works by moving the jaw forward to open the airway and maintaining it in this position while wearing it during sleep. To obtain a MAD, consult with a dentist who is experienced in making and fitting these devices. The dentist will conduct a full evaluation of your teeth and mouth to make sure your teeth and jaw structure are healthy enough to wear a MAD.

Surgical Procedures

A variety of surgical procedures exist as alternative options to treat OSA. Talk to your health care team to see if surgery might work for you. Surgical procedures are not always successful.

Losing Weight

While weight loss alone doesn't always work as the single treatment for OSA, weight loss may result in improving sleep apnea just as weight gain can make sleep apnea worse.

NOTE: Alcohol, opioids, and sedating medications can cause and/or worsen sleep apnea and should be avoided at bedtime.





What are the benefits of using CPAP Therapy?

Nightly use of CPAP to treat your sleep apnea can result in many benefits to improve your life and make each day better.

Daytime Alertness

Sleepiness and daytime fatigue are common symptoms of OSA. CPAP can improve your normal sleep pattern and increase your total sleep time by eliminating breathing pauses in your sleep. This may help you wake up feeling more refreshed and boost your energy throughout the day and may reduce the risk of motor vehicle accidents.

Emotional Stability

Untreated sleep apnea increases your risk of depression. CPAP can help improve your mood, reduce your risk of depression, and improve your overall quality of life.



Concentration

Left untreated, sleep apnea can disrupt your sleep and may affect your brain function. As a result, you may have trouble concentrating. Using CPAP may improve your ability to think, concentrate, and make decisions. This may also improve your productivity and decrease your chance of making a mistake at work.



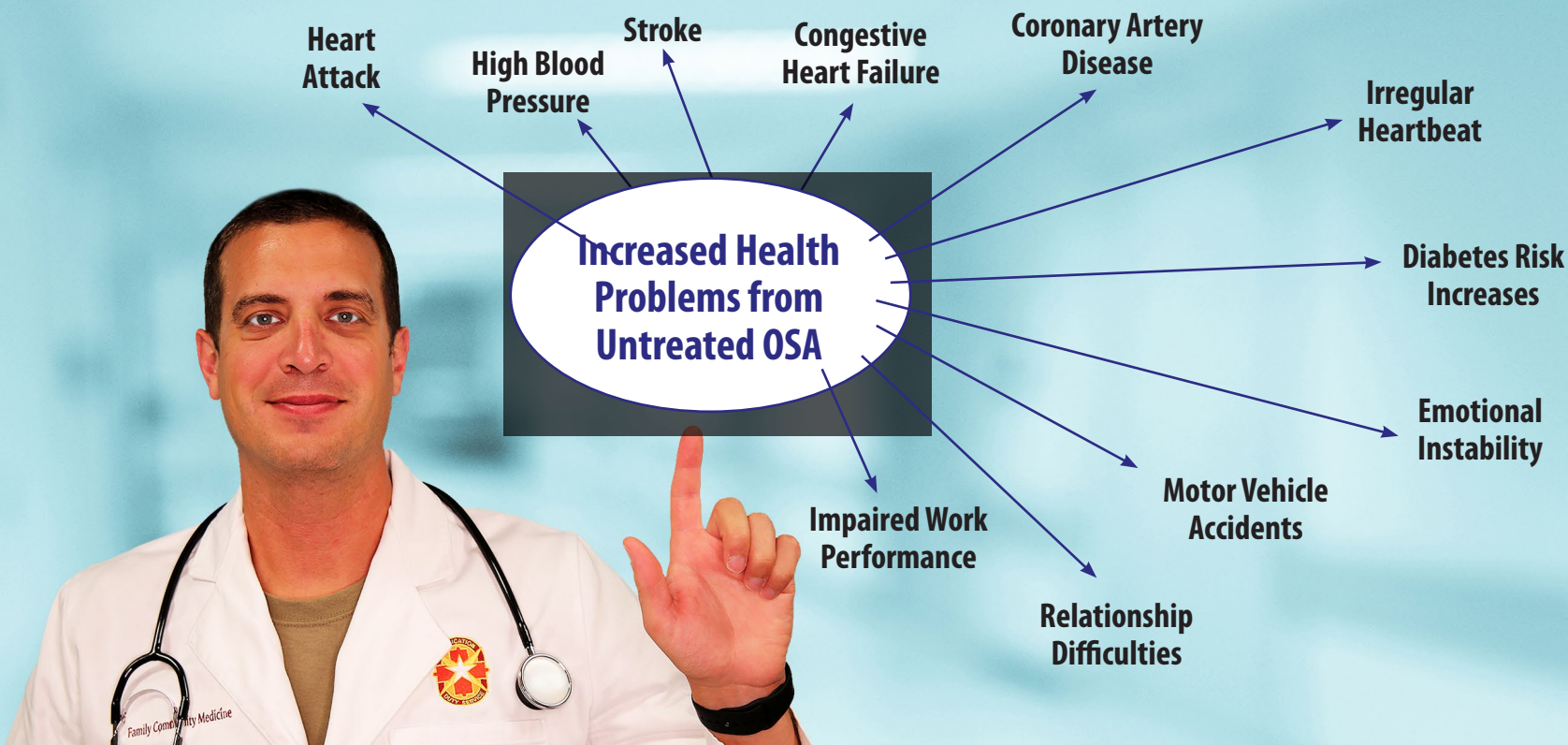
Snoring

By keeping your airway open as you sleep, CPAP reduces or eliminates your snoring. While you may not notice, your bed partner may benefit from a quieter sleep environment.



Better Overall Health

Sleep apnea is associated with many health problems including heart disease, high blood pressure, stroke, and diabetes. Addressing sleep apnea may help prevent or improve these diseases.





Getting into the mindset to use CPAP

Understanding that there are consequences of untreated OSA may help motivate you to use CPAP therapy as instructed by your provider.

Having a positive mindset about CPAP therapy can help you accept your need for it. However, using CPAP is not always easy, and there can be setbacks. Try to focus on the health benefits of using therapy.

Provider Support

Both your sleep medicine specialist (if you have one) and your primary care provider can support you in adhering to your CPAP therapy by reviewing data from your machine, discussing unwanted side effects, identifying barriers to use, and confirming that your symptoms (daytime sleepiness, snoring, etc.) are being addressed.

If you are using Mandibular Advancement Device (MAD) therapy, your provider should inquire about your usage of the device. Schedule a follow-up appointment with your provider within 1-3 months of starting therapy.

Patient Education

Your provider can supply patient education regarding OSA and CPAP or MAD therapy, as well as help you establish treatment goals.

Support Methods

Tolerance of CPAP varies from person to person. If you are having problems, contact your provider early on to help address the challenges. Individual and group support programs are available to help, as well as skilled providers such as clinical psychologists, nurses, respiratory therapists, health educators, physicians, and sleep technicians. These providers can deliver educational, behavioral, and supportive interventions that have been found to improve the use of CPAP therapy. For patients with OSA who cannot tolerate or who have declined these primary treatments, your provider can assist you in selecting alternative, patient-focused interventions.

Sleep Apnea Facts and Myths¹

Many people with sleep apnea are not aware they have it.

TRUE. Sleep apnea is a sleep disorder and many individuals with sleep apnea are not aware they are stopping breathing in their sleep and their sleep is disrupted.

A person with sleep apnea may stop breathing hundreds of times each night.

TRUE. The cycle of sleep apnea (stopping breathing in sleep) can occur over and over throughout the night.

Continuous Positive Airway Pressure (CPAP) works by maintaining a constant pressure to keep the airway open.

TRUE. A CPAP machine takes in room air, filters it, and blows it out at a higher pressure. It is not an “oxygen” machine.

People with untreated or undiagnosed sleep apnea are at no greater risk of heart attack and stroke than those without sleep apnea.

FALSE. Sleep apnea strains the heart and significantly increases the risk of cardiovascular problems.

Sleep apnea is related to high blood pressure, diabetes, and obesity.

TRUE. Sleep apnea can be caused by obesity and can make high blood pressure and diabetes more difficult to control.

Sedatives, muscle relaxants, anesthesia, and alcohol do not affect sleep apnea.

FALSE. Any substance that relaxes muscles will make the airway more likely to collapse and worsen apnea.

Snoring and daytime sleepiness are the most common symptoms of sleep apnea.

TRUE. Snoring is caused by tissue vibration from partial airway obstruction. Sleep apnea causes sleep disruption leading to excessive daytime sleepiness.

I only need to use CPAP for part of my sleep at night.

FALSE. In order to get the full benefit of treatment, CPAP should be used for your entire sleep period.



How do I obtain a CPAP Machine?

The process to obtain your machine may be different depending on where you are, and whether you are associated with the VA or the DoD. In general, you will require a prescription for the machine from your provider which will allow you to obtain the machine from a CPAP distributor.



How am I fitted for CPAP?

A technician or therapist will demonstrate mask options and help you select the correct size. There is no single style or size that is best for everyone. You may need to try a few options to find the best fit.

Common Obstacles with CPAP

CPAP devices have been improved to make them more user-friendly, less noisy, and more comfortable. Even so, only about one-third of people who are prescribed CPAP are successful at using the device as recommended without additional assistance. The first two weeks after being prescribed CPAP are the most important in terms of long-term use of the device. It is important to start out right!

Most people have some difficulties adjusting to CPAP when they start, or they encounter obstacles after they have been using it for awhile. Understanding some of the most common obstacles and having a plan for solving them makes it more likely for you to be successful in adjusting to your CPAP therapy. Below are some of the common obstacles people encounter when using CPAP, as well as potential solutions.

Common Obstacles to Using CPAP¹

My mask leaks air

- This is a common problem, particularly if you have facial hair and/or are using a full-face mask (a mask that covers your nose and mouth).
- Try making small adjustments to the straps and mask.
- Do not over-tighten the straps, as this may create more air leaks.
- If these suggestions don't work, you may need a different size or style of mask. Let your sleep apnea provider know you are having problems so they can help you find a mask that fits well. There may be a need to use a chin strap if there is a mouth leak.

The mask is causing a sore on my skin

- Irritated, sore, or broken skin can be a sign of a poorly fitting mask. If you start to develop a sore, stop using your mask and contact your sleep apnea provider to discuss interventions or trying a different mask style.
- Do not use any salves or ointments on your face when you are wearing the CPAP mask because over time, the salves or ointments can break down the silicone of the mask, making it more difficult to get a seal.

CPAP gives me a headache

- A headache may be a sign that your mask is too tight.
- Try loosening the straps. The straps should be just tight enough that the mask stays in place.
- Talk to your sleep apnea provider to investigate other causes or contributors to headaches.



Not feeling motivated to try CPAP

Air pressure too high or low

Nasal dryness or congestion

Mask comfort

Mask leakage

Not understanding the importance of treatment

Throat dryness



The CPAP machine is too noisy

- Fortunately, most of the CPAP machines today are very quiet. However, if the noise bothers you, try placing the machine on top of a mouse pad to dampen the sound.
- You can also place the machine on the floor or in a bedside cabinet.
- Do not place any items over the top of the machine.

The air pressure feels too high

- Sometimes, it may feel like the air pressure is too high as you are trying to fall asleep.
- Use the RAMP button on the top of your machine to temporarily lower the pressure.
- If you continue to feel that the air pressure is uncomfortable, talk to your sleep apnea provider about other options or solutions.

The air pressure feels too low

- If you feel like you are not getting enough air with CPAP, you may need a pressure adjustment.
- Talk to your sleep apnea provider.

I have a stuffy nose

- Nasal congestion, whatever the cause (allergies, cigarette smoke, common cold, etc.), may make it very difficult to tolerate CPAP.
- Sometimes using CPAP can cause nasal congestion. Your sleep apnea provider or your primary care physician can advise you on the best way to manage your nasal congestion. Treatment may include saline nasal spray and/or medications.

My nose or throat is too dry

- Using CPAP can sometimes dry out your nose and throat.
- Using the humidifier that came with your machine can help with dryness.
- If you continue to experience dryness even though you are using the humidifier, contact your sleep apnea provider for additional recommendations.

I fall asleep before I put the mask on

- Some people like to read or watch TV in bed at night and may fall asleep before putting the CPAP on.
- Create a new habit of applying the CPAP whenever you get into bed.
- Ask a family member to wake you up and remind you to put the CPAP on if they see you sleeping without it.
- If you sometimes fall asleep in the evenings while watching TV outside the bedroom (e.g. living room, den), set an alarm or have a family member wake you up at bedtime so you can sleep in your bed with the CPAP.

I forget to put the mask on at bedtime

- Some people forget to put the CPAP on when they are really sleepy at bedtime.
- If this happens to you, try getting your CPAP cleaned and ready earlier in the day and then draping the mask and tubing across your bed pillows. This way, you cannot forget to put it on.
- You can also set an alarm or ask a family member to remind you to wear your CPAP.

I just don't want to use CPAP

- CPAP can be a hassle to use. But it is important in keeping you healthy.
- If you find that your motivation to use CPAP is low, make a list of all the reasons why you want or need to use CPAP. Keeping this list by your bed can help remind you of the importance of this treatment.
- Ask for support from your family, friends, or healthcare providers.
- Reward yourself with a fun activity or special meal for making the choice to use the CPAP.
- Keep in mind that once you get into the habit of using CPAP regularly, it is much easier to use.

My bed partner doesn't like me to use CPAP because it disrupts their sleep

- Most of the time, bed partners are thrilled that their partner is using CPAP, because the loud snoring stops. Once in a while, a bed partner is bothered by the CPAP.
- It may be helpful to share information with your bed partner about sleep apnea, how it can be impacting your health, and how CPAP will benefit you. For example, if your bed partner understands that you may have more energy and be less irritable during the daytime when you are using CPAP and sleeping better, he or she is more likely to be supportive. Some couples choose to sleep in separate bedrooms. If your bed partner is bothered by the CPAP noise, ask if he or she would be willing to try earplugs.

Common Obstacles with CPAP



I am embarrassed to be seen wearing CPAP

- Let's face it, CPAP is not going to win any fashion awards. If you are concerned about how your partner will respond to seeing you wearing CPAP, it may be helpful to have a discussion with them about what CPAP is and why you need it.

When I wear the CPAP, I have more nightmares

- During the first month or so of using CPAP regularly, you may experience more dreams or nightmares. This happens because your brain is making up for lost sleep, and it should resolve on its own. With regular CPAP use, you will reduce your chance of nightmares because you will no longer be sleep deprived.
- If you continue to have nightmares with CPAP, you may have a nightmare disorder and should discuss this with your healthcare provider.



I have to get up during the night to use the restroom

- It is normal to have to use the restroom during the night. You can remove the CPAP mask and re-apply it when you return to bed. Some people find it easier to leave the mask on and detach the tubing when they get out of bed.
- Because sleep apnea can cause individuals to urinate more frequently at night, using the CPAP may reduce the number of bathroom visits.

I wake up with the CPAP and have trouble going back to sleep

- It may take some time to get used to sleeping with the CPAP.
- If you find that you still have problems sleeping even though you are using CPAP regularly, you may have insomnia. Insomnia (trouble falling asleep or staying asleep) can have many different causes and can interfere with CPAP usage. Let your healthcare provider know if you have insomnia to discuss potential treatment options.

Learning How to Clean and Maintain the CPAP Machine

- It may take some time to get used to cleaning and maintaining the CPAP.
- Refer to the manufacturer's instructions for cleaning and maintenance of your CPAP and for additional information, refer to pages 16-19 in this booklet.

For more questions or ways to troubleshoot common obstacles to CPAP use, please contact your sleep apnea provider or refer to <https://www.cpap.com/blog/cpap-problems-solutions/>.

Ways to Improve Regular Use of CPAP

There are various things that can help you to improve regular use of your CPAP including education, therapy, or using the right equipment.

Education

Education programs can help you learn about the benefits and results of using CPAP. Your primary care and sleep apnea provider can give you additional educational materials and resources.

Equipment

- There are different types of CPAP to consider.
 - Fixed continuous positive air pressure (CPAP).
 - Automatic positive airway pressure determines how much pressure is required to keep the airway open and adjusts during sleep.
- Mask type – a variety of mask types exist (full face mask, nasal mask, nasal pillows mask, etc.) and ensuring the appropriate mask choice may make CPAP easier to use.
- A dental device-CPAP hybrid may be an option.
- Expiratory pressure relief (EPR) adjustment on the CPAP can help with feelings of breathlessness.
- CPAP machine humidification and heat levels can be adjusted.
- Investigate and address issues of high leak.



Therapy

- Cognitive Behavioral Therapy (talking with a counselor) can help with your view of sleep apnea and help encourage a positive association with using CPAP.
- Motivational therapy or counseling can help motivate you to use your CPAP.
- Other behavioral therapies such as combining therapies, using an incentive-based program, joining a support group, or a desensitization program may help you to use your CPAP.
- Remote support such as web-based support or using mobile apps can be helpful.

Monitoring Programs

Remote CPAP monitoring may occur as your primary care or sleep apnea provider downloads data from your CPAP machine. Another example is the Remote Veterans Apnea Management Platform [REVAMP] program. REVAMP pairs with your CPAP machine and enables you and your VA sleep care team to track your sleep data. <https://veteran.mobilehealth.va.gov/Revamp/Login.aspx>

Surgical Procedures and Medicine

Your provider may discuss other options such as nasal or sinus surgery or other medical treatments to improve your use of CPAP.



Before You Travel/Deploy

Make an appointment with your healthcare provider/sleep apnea provider preferably 4-6 weeks before your departure (if possible) to discuss your travel plans, any medications that you are currently taking (if applicable), and the need for any replacement durable medical equipment (DME).

Talk to your healthcare provider/sleep apnea provider to obtain power adapters for trucks or RVs or battery packs for remote travel. Smaller portable CPAP machines also exist and may be an option for you.

Ensure you have adequate supplies for your CPAP prior to travel/deployment (i.e., tubing, mask, straps, and a possible replacement battery, etc.).

How to Travel/Deploy with Your CPAP Machine

Plan your trip in advance

- Pack your CPAP machine in its carrying case.
- Make sure you completely empty the humidifier tank.
- Label your CPAP case with a medical equipment luggage tag which you can purchase out of pocket.
 - Check with your travel carrier if a specific tag is required.
 - Many different styles are available for purchase online or in some medical supply stores.
 - Use of the medical equipment tags may help to avoid concerns about your carry-on items by a TSA agent or flight attendant.
 - Under the Americans with Disabilities Act, a CPAP machine is not considered carry-on luggage and does not count toward your carry-on quota.
- Consider notifying your travel carrier (airline, cruise, train, bus) that you are planning on bringing your CPAP as they may require a minimum of 48 hour notification before your travel date, especially if you plan to use CPAP during travel. <https://www.healthsgyre.com/education/cpap-travel-flying-cpap/>.
- Obtain and bring an appropriate power adapter for the specific region where you will be staying.
- For the latest Transportation Security Administration (TSA) rules on air travel with a CPAP, refer to <https://www.tsa.gov/travel/frequently-asked-questions> prior to your travel.

Service-Specific Regulations

These are general considerations current at the time of printing this booklet and are subject to change (June 2020). Each case is reviewed on an individual basis and is subject to the discretion of the Disability Evaluation System (DES).

CENTRAL COMMAND

USCENTCOM MOD THIRTEEN - PPG-TAB A: AMPLIFICATION OF THE MINIMAL STANDARDS OF FITNESS FOR DEPLOYMENT TO THE CENTCOM:

Specific Medical Conditions: Obstructive sleep apnea (OSA). The OSA should be documented/diagnosed with in-laboratory polysomnography, with a minimum of 2 hours of total sleep time, that yields an apnea-hypopnea index (AHI), and/or respiratory disturbance index (RDI), of greater than 5 / hour. Individuals who are treated with continuous positive airway pressure (CPAP) should deploy with a machine that has rechargeable battery back-up and sufficient supplies for the duration of the deployment. Individuals deploying to a location where their sleep environment has unfiltered air will typically not be granted waivers if a waiver is otherwise required per the guidance below. Advanced modes of airway pressure (adapt-servo ventilation, BIPAP, etc.) are not permitted in theater. The following guidelines are designed to ensure that individuals with OSA are adequately treated and that their condition is not of the severity that would pose a safety risk should they be required to go without their CPAP for a significant length of time.

(a) OSA of any severity, if symptomatic despite treatment, is non-deployable. **Individualized assessment required.** (b) OSA with an AHI and/or RDI ≥ 30 /hr post-treatment requires a waiver for deployment to any location in the AOR. (c) OSA with an AHI and/or RDI < 30 /hr post-treatment does NOT require a waiver to deploy, except to Afghanistan or Yemen. (d) Mild OSA (AHI and/or RDI < 15 /hr) with or without CPAP treatment is deployable. **No waiver required.**

ARMY

AR40-501: 3-32 page 34 Sleep Disorders:

(2) Obstructive sleep apnea (OSA) that causes daytime hypersomnolence or snoring that interferes with the sleep of others and cannot be corrected with weight loss, positive airway pressure (PAP), surgery, or an oral appliance. The diagnosis of OSA must be based on a polysomnogram. Minimum adherence to PAP therapy, for mild, moderate, or severe OSA, is defined as 4 hours of therapy per day for at least 70 percent of days over a period of 30 days. Optimal adherence to PAP therapy is defined as 6 hours or more of therapy per day for at least 90 percent of days. (a) Individuals that require PAP modes other than auto-adjusting pressure, bi-level pressure or continuous pressure for control of OSA will be referred to the DES. (b) A 12-month trial of PAP therapy may be attempted to assist with other therapeutic interventions, during which time the individual will be issued a temporary profile. If PAP therapy is required for longer than 12 months and the Soldier is adherent to PAP (meets the minimum adherence criteria as defined in paragraph 3-32b(2)) with adequate

treatment of daytime sleepiness, the Soldier should be profiled as a permanent P-2 and are required to deploy with a PAP battery. (c) If symptoms of hypersomnolence or snoring cannot be controlled with weight loss, PAP therapy, surgery, or an oral appliance, or the Soldier is unable to achieve the minimum adherence to PAP defined in paragraph 3-32b(2), then the Soldier will be referred to the DES. If the use of PAP or other therapies for sleep apnea meets the definition of a disqualifying medical condition or physical defect as in paragraph 3-1, the Soldier should be referred to the DES. (d) If prescribed stimulant therapy is required to treat hypersomnolence despite adequate treatment of OSA, refer to the DES.

NAVY

NAVMED P-117 chapter 15 page 104 (June 2018)

Any disease or condition that causes chronic or recurring disability for duty assignment or has the potential of being exacerbated by the hyperbaric environment or diving duty is disqualifying. Obstructive Sleep Apnea (OSA) with cognitive impairment or daytime hypersomnolence is disqualifying. Individuals whose OSA is adequately treated (i.e., asymptomatic) using continuous positive airway pressure (CPAP) or by other nonsurgical interventions meet physical standards and do not require a waiver. Note: CPAP equipment is not certified for use in recompression chambers. Therefore, any diver with a diagnosis of OSA whose treatment plan includes CPAP is precluded from participation in saturation diving evolutions. Such an individual opting not to use a prescribed medical device does not obviate this restriction. Page 130: Obstructive sleep apnea which does not respond to standard therapeutic interventions such as positive airway pressure, surgery, or weight loss is disqualifying.

AIR FORCE

AFI 48-123. 5.3.2.1.4.1. A trial of therapy with PAP up to 12-months may be attempted to assist with other therapeutic interventions, during which time the individual will be issued a mobility restrictive profile stating that they may deploy with reliable electricity at deployment billeting location if waived by the COCOM. 5.3.2.1.4.1.1. Airmen with severe or moderate obstructive sleep apnea (diagnostic Polysomnogram AHI/RDI greater than 15) and/or symptoms despite treatment and regardless of severity require an evaluation for a Medical Evaluation Board (MEB). 5.3.2.1.4.1.2. Airman with mild obstructive sleep apnea (diagnostic Polysomnogram AHI/RDI ≤ 15) once stable without adjustments for 90 days can have the Code 31 removed without any deployment restrictions after approval by the DAWG. The DAWG will ensure a duty limitation is placed on the 469 stating "member requires reliable electricity at billeting when deployed"; see COCOM reporting instructions for guidance." 5.3.2.1.4.2. If symptoms of hypersomnolence cannot be controlled with lifestyle modifications, positive airway pressure, surgery or an oral appliance, the standard is not met. The use of stimulant medications or supplemental oxygen for treatment of obstructive sleep apnea requires an MEB evaluation. If the use of positive airway pressure or other therapies for obstructive sleep apnea result in interference with satisfactory duty performance as substantiated by the individual's commander then the standard is not met and requires an MEB evaluation.

CPAP Cleaning and Maintenance

Why should I properly clean and maintain my CPAP machine and equipment?

By routinely cleaning your CPAP machine, you will greatly reduce the number of germs (microorganisms) that may enter your lungs as you breathe in the air produced from the CPAP machine, make it less likely to re-infect yourself as you use the CPAP during an illness, and improve the quality of the air you breathe. The moist, dark, and warm environment which occurs in the mask and tubing is the perfect environment to support the fast growth of bacteria and mold which in high numbers can cause illness.

Over time the oils and dead skin cells from your hands and face can build up on your mask and head and chin strap causing irritation or rash to the skin. Facial oils and moisturizers have been shown over time to break down the silicon barrier faster.

The best way to reap the benefits of CPAP therapy without risking getting sick from poorly maintained equipment is to clean and replace the equipment, filters, and mask per the manufacturer's instructions and schedules.

Who can I call if I have any issues with the CPAP mask or machine or need replacement parts?

Contact the manufacturer or distributor of your CPAP machine to obtain replacement parts that may or may not be covered by the warranty.

Why should I follow the Manufacturer's Instructions?

The manufacturer of your CPAP machine is the expert in guiding you in the proper way to maintain your CPAP machine and associated equipment. Read and follow the manufacturer's instructions and visit their website if you have questions.

It could be costly if you do not follow your manufacturer's instructions and something goes wrong with your CPAP machine. Your manufacturer may not honor the warranty if you did not follow the instructions on using and maintaining the CPAP machine and attachments.





General Recommended Safe Practice Cleaning Tips

Read and always follow the manufacturer's instructions.

- Never clean when it is still plugged in.
- Never use harsh chemicals like bleach, which is not recommended for use by the manufacturer.
- Most manufacturers recommend cleaning solutions that are colorless, hypoallergenic and natural, or mild cleaning agents that do not leave a harmful residue.
- There are also cleaning wipes available from different manufacturers that you may purchase out of pocket.

If you have questions, first go to the manufacturer's manual or website, next go to your healthcare team, and lastly to <https://www.cpap.com/>.

How do I clean the CPAP Machine?

- Use a damp cloth or paper towel to wipe the outside of the machine, removing dust and debris that may collect in time.
- Gently dry with a dry cloth or paper towel.

How do I clean the mask and cushions or nose pillows?

▶ **Every 2 Days: Clean the mask**

▶ **Daily: Clean the cushions or nose pillows**

- Clean with a mild (fragrance-free) soap solution in a bowl large enough to fit your mask.
- To help control odors and get a deeper clean, consider washing your mask (weekly) and cushions or nose pillows with one-part white vinegar and 3-4 parts water in a bowl large enough to completely immerse the mask.
- Rinse with clean water.
- Dry with a soft cloth.
- Allow enough time to air dry before the next use.
- After drying, reassemble the CPAP machine and equipment.

Replace the mask every 6-12 months and the cushions or nose pillows every 3-6 months.

NOTE: Do not boil the mask cushion unless the manufacturer notes this is safe to do.

How do I clean the headgear and chin strap?

▶ **Weekly: Clean the headgear and chin strap**

- Clean with a mild (fragrance-free) soap solution in a bowl large enough to fit your mask.
- To help control odors and get a deeper clean, consider washing the headgear and chin strap in one-part white vinegar and 3-4 parts water in a bowl large enough to completely immerse the headgear and chin strap.
- Rinse with clean water.
- Dry with a soft cloth.
- Allow enough time to air dry before the next use.
- After drying, reassemble the CPAP machine and equipment.

Replace the headgear and chin strap every 6-12 months.

NOTE: Never clean or dry the headgear and chin strap in the washing machine and/or dryer unless recommended by the manufacturer.

How do I clean the tubing or hose?

▶ **Daily: Hang tubing over a towel rack to air dry**

▶ **Daily: Prevent pooling of any moisture from the night's use**

▶ **Weekly: Clean the tubing or hose**

- Clean with a mild (fragrance-free) soap solution.
- To help control odors and get a deeper clean, consider washing the tubing in one-part white vinegar and 3-4 parts water in a bowl large enough to completely immerse the tubing.
- Consider obtaining a tube brush to help clean the inside of the tube.
- Rinse with clean water.
- When rinsing the tubing, hold the hose so that both ends of the hose point straight up then gently swish the hose back and forth before draining.
- Allow enough time to air dry before the next use; hang over a towel rack to prevent water from pooling in the tubing to air dry.
- After drying, reassemble the CPAP machine and equipment.

Replace the tubing or hose every 6-12 months.





How do I clean the reusable foam filters?

▶ Weekly: Clean the reusable filters

- Clean with a mild (fragrance-free) soap solution in a bowl (do not soak in a vinegar solution).
- Rinse with clean water.
- Allow enough time to air dry before the next use.
- After drying, reassemble the CPAP machine and equipment.

Replace the reusable foam filters based on the manufacturer recommendation (usually every 6 months or sooner if the foam begins to degrade).

NOTE: Disposable paper-like filters are never washed and are to be replaced every 30 days or sooner if they are discolored.

How do I clean the humidifier?

▶ Weekly: Clean the humidifier

- For nightly use, it is best to use distilled water as tap water contains heavy metals and particles that can collect in the humidifier, making it harder to keep clean over time.
- Clean with a mild (fragrance-free) soap solution. Be sure to remove any film which may or may not be visible.
- To help control odors and get a deeper clean, consider performing a deep clean monthly using one-part white vinegar and 3-4 parts water, making sure to remove all film.
- Rinse with clean water.
- Dry with a soft cloth.
- Allow enough time to air dry before the next use.
- After drying, fill with distilled water and reassemble the CPAP machine and equipment.

Replace the humidifier every 6-12 months. NOTE: Never clean or dry the humidifier chamber in the dishwasher unless recommended by the manufacturer.

Automated cleaning devices:

- These are not recommended at this time because they are expensive, not covered by insurance, and are not approved by the Food and Drug Administration (FDA). (See article - FDA Reminds Patients that Devices Claiming to Clean, Disinfect or Sanitize CPAP Machines Using Ozone Gas or UV Light Have Not Been FDA Authorized <https://www.fda.gov/news-events/press-announcements/fda-reminds-patients-devices-claiming-clean-disinfect-or-sanitize-cpap-machines-using-ozone-gas-or>). Discuss this with your sleep provider for the latest guidance.
- Most CPAP manufacturers will void the warranty if these are used on their CPAP machine and attachments. Make sure you check with your manufacturer before you purchase and use an automated cleaning device on your CPAP machine and attachments.

References

- CPAP Mask Overview <https://www.cpap.com/cpap-faq/Masks#how-do-i-care-for-my-mask>
- [CPAP.com](https://www.cpap.com)
- National Institutes of Health (NIH) National Heart, Lung, and Blood Institute (NHLBI) – CPAP: <https://www.nhlbi.nih.gov/health-topics/cpap>

For more information on obstructive sleep apnea and chronic insomnia disorder:

- Sleep Education, a resource provided by the American Academy of Sleep Medicine: <http://sleepeducation.org/>
- Sleep Education, a resource provided by the American Academy of Sleep Medicine for CPAP: <http://sleepeducation.org/essentials-in-sleep/cpap>
- American Thoracic Society, Fact Sheets A – Z: <https://www.thoracic.org/patients/patient-resources/fact-sheets-az.php>
- American Academy of Sleep Medicine (AASM): <http://sleepeducation.org/essentials-in-sleep/home-sleep-apnea-testing>
- American Academy of Sleep Medicine (AASM): <http://sleepeducation.org/healthysleep/the-stop-the-snore-pledge>
- Centers for Disease Control and Prevention (CDC) – Sleep and Sleep Disorders: <https://www.cdc.gov/sleep/resources.html>
- NIH / NHLBI – National Center on Sleep Disorders Research: <https://www.nhlbi.nih.gov/about/org/ncsdr/External>
- NIH / NHLBI – Sleep deprivation and deficiency: <https://www.nhlbi.nih.gov/health-topics/sleep-deprivation-and-deficiency>
- NIH / NHLBI – Sleep studies: <https://www.nhlbi.nih.gov/health-topics/sleep-studies>
- Health.mil: <https://health.mil/News/Gallery/Infographics/2017/03/13/Obstructive-Sleep-Apnea-Diagnosis-Treatment-Guide-Active-Duty-US-Military>
- Walter Reed National Military Medical Center: https://tricare.mil/mtf/WalterReed/Health-Services/M_S/Otolaryngology/Sleep-Apnea-Referral-Guidelines
- Access to the full VA/DOD Evidence Based Practice, 2019 Clinical Practice Guideline, The Management of Chronic Insomnia Disorder and Obstructive Sleep Apnea and additional resources are available at: <https://www.healthquality.va.gov/guidelines/CD>

1 Adapted from “Successful CPAP Participant Manual” with permission from Dr. M. Leggett, Behavior Sleep Medicine Clinic, Durham VA Medical Center, pages 6-8.



This booklet is based on the VA/DoD Clinical Practice Guideline for Management of Chronic Insomnia Disorder (CID) and Obstructive Sleep Apnea (OSA), 2019. The guideline includes evidence-based recommendations for diagnosis and management of patients with Obstructive Sleep Apnea.



The full text of the Guideline can be found at
<https://www.qmo.amedd.army.mil> or <http://www.healthquality.va.gov>
Scan a QR code below with your smartphone for additional resources.

2019 Insomnia/OSA
Clinical Practice Guideline



2019 Insomnia/OSA
CPG Provider Summary



2019 Insomnia/OSA
CPG Patient Summary

