

# Sleep apnea



Your doctor thinks you may have sleep apnea. The purpose of this fact sheet is to inform you about this disease. It also gives you details about the tests done to diagnose it and possible treatments.

## What is sleep apnea?

The term “apnea” refers to a stop, a suspension of breathing. Sleep apnea causes breathing to stop while you sleep.

## What are the symptoms of sleep apnea?

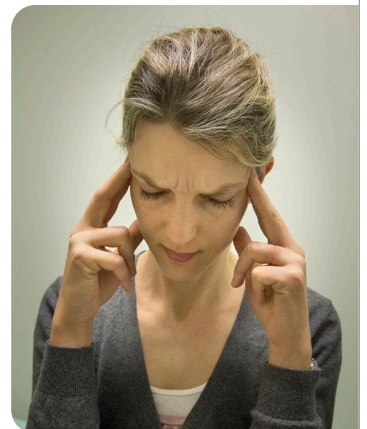
Sleep apnea causes symptoms at night but also during the day. Different people have more or less of these symptoms.

### Symptoms during sleep

- Snoring
- Pauses in breathing
- Sensation of choking
- Restless sleep
- Sleep interrupted by short waking periods (microarousals)
- Insomnia
- Frequent need to urinate
- Gastric reflux
- Sweating
- Repeated decrease in oxygen levels in the blood (hypoxemia)

### Symptoms during the day

- Headache on waking up
- Feeling sleep (drowsiness)
- Fatigue
- Decreased memory, concentration and judgment
- Irritability
- Decreased sex drive/impotence



Your family members can help you figure out if you have sleep apnea. They will notice if you stop breathing at night or if you show signs of the disease. If they see this, consult your doctor. You will also find, on page 5, a test to check if you are too drowsy.

## Is there only one form of sleep apnea?

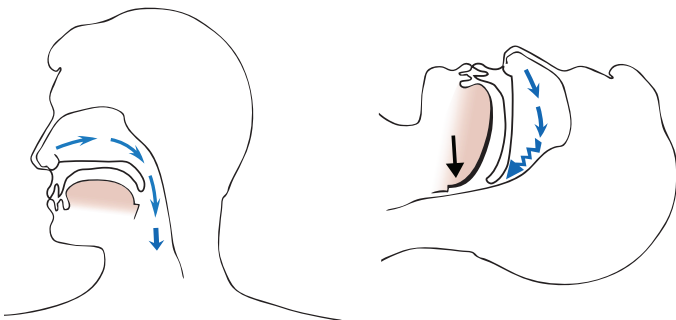
There are several types of sleep apnea due to different causes.

### Obstructive sleep apnea

This form of sleep apnea is the most common. It is a long-term (chronic) disease caused by an overall decrease in muscle tone during sleep. In the throat, this can cause certain tissues such as the tonsils, the uvula, the soft palate, etc., to be compressed.

The air passage in the throat then gets blocked (see diagram below). When this happens, breathing can stop (apnea) or slow down (hypopnea) during sleep.

Microarousals (short periods of waking), which last less than 15 seconds, help restore the tone of the throat muscles and reopen the air passage. In general, breathing problems and microarousals are not noticed but they prevent good sleep.



When the person is awake and standing, the air moves normally.

When sleeping and lying down, the air is blocked because certain tissues are compressed.

### Central sleep apnea

This type of sleep apnea is caused by poor breathing control. This is most often due to heart failure, stroke (cerebrovascular accident, or CVA), or pain medication (morphine or fentanyl patches). The start of a breath is delayed and there are short or longer pauses in breathing.

Central sleep apnea causes the same symptoms as obstructive sleep apnea, but without snoring

### Upper airway resistance syndrome (UARS)

This type of sleep apnea happens when more effort is needed to get air in through the airways. The airways might be narrow because of their natural shape or because the person is overweight.

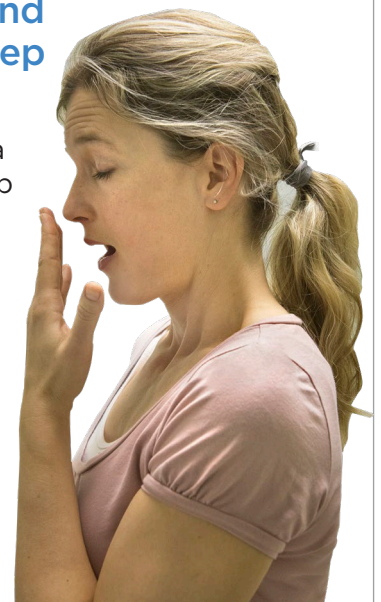
Most symptoms are the same as for other forms of sleep apnea. However, there are no significant changes in oxygen levels in the blood.

### What are some factors that can lead to sleep apnea?

- Being overweight or obese
- A large neck, either naturally or because of overweight
- Blocked nose, for different reasons (chronic sinusitis, malformed nasal passages, etc.)
- Large tonsils
- Small jaw (recessed chin)
- Cases of sleep apnea in the family
- Medication taken for sleep or pain
- Menopause
- Smoking or drinking (alcohol)

### What are the risks and complications of sleep apnea?

Left untreated, sleep apnea can make you want to sleep and take naps during the day (drowsiness). It can also have serious impacts on your social life and your health.



## Social impacts

- Road accidents
- Work accidents
- Job loss
- Divorce

## Health problems

- Physical problems, such as high blood pressure, cardiovascular disease, or diabetes, for example.
- Mental problems, such as depression or dementia.



Patient equipped with sensors to assess breathing during sleep.

## How can I find out if I have sleep apnea?

Your doctor can order a test to assess your breathing while you sleep. There are two possible tests:

- **Cardiorespiratory polygraphy:** Done at home, this test uses sensors placed on your body while you sleep. It records your blood oxygen level, your breathing, your snoring, and your position.
- **Full polysomnography:** This test done at the hospital is very similar to the home-based study but is more complete.

Your doctor will suggest the type of test that is right for you. For more information on these tests, see the relevant fact sheets for your health situation.

## What determines how serious the sleep apnea is?

- The number of times per hour your breathing stops or slows down during sleep.
- The size of the decrease in blood oxygen levels.
- The impact of drowsiness and other symptoms.

## How is sleep apnea treated?

Treatments and lifestyle changes can reduce and sometimes even clear up the symptoms. This will help to limit any long-term effects.

For more details on these treatments, see the relevant fact sheets for your situation. However, here is a brief overview of the main ones.

### Medical treatments

#### > Positive airway pressure therapy

This uses a device that produces a kind of air cushion in the throat to keep the upper airway open. This treatment is suitable for the great majority of patients. There are several types of devices geared to the different forms of sleep apnea.



Patient sleeping with a positive airway pressure device.

### > Devices to prevent back sleeping

Lying on the back while sleeping can make sleep apnea worse in some patients. Specially designed jackets or cushions make sleeping on your back uncomfortable and force you to sleep on your side.

### > Treatment of nasal congestion:

Using nasal sprays, for example.

## Dental treatments

To change the position of the jaw, a mandibular advancement device (MAD) is used. This is a useful option for patients with mild apnea who are not obese.



## Surgery

Removing large tonsils may cure apnea. Soft palate surgery, on the other hand, has low success rates.

## Weight control

Maintaining a healthy weight is very important to control sleep apnea.

## Lifestyle changes

Good sleep hygiene, stress reduction, and avoiding excess alcohol can reduce the risk of sleep apnea. People who suffer from it must also be very vigilant to avoid accidents when driving.



## Who can I contact for help or to ask questions?

Your family doctor or another health professional can direct you to the sleep clinic nearest to you.



### USEFUL RESOURCES

*Dormir - Le sommeil raconté*,  
Pierre Mayer, Édition Pierre Tisseyre, 2012

*Vaincre les ennemis du sommeil*,  
Charles Morin, Éditions de l'Homme, 2009

Association pulmonaire du Québec:  
> [poumonquebec.ca](http://poumonquebec.ca)  
Click on Lung Health → Diseases → List of lung diseases (on left) → Sleep apnea

National Sleep Foundation (United States):  
> [sleepfoundation.org](http://sleepfoundation.org)

Other health sheets published by the CHUM are available. Ask for those that might fit your situation.



You can also find them  
on our website  
[chumontreal.qc.ca/fiches-sante](http://chumontreal.qc.ca/fiches-sante)

*The content of this document in no way replaces the recommendations and diagnoses made, or the treatment suggested by your health professional.*

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## APPENDIX: EPWORTH SLEEPINESS SCALE

**This scale is used to assess whether you tend to fall asleep (sleepiness) too easily. This could indicate a sleep disorder.**

**Rate the following situations from 0 to 3, according to:**

- 0** = Would never doze in this situation
- 1** = A slight chance of dozing in this situation
- 2** = a moderate chance of dozing in this situation
- 3** = a high chance of dozing in this situation

If you've never been in one of these situations, try to imagine what would happen if you were in such a case.

	Sitting while reading
	Watching television or at the cinema
	Sitting, doing nothing, in public (at a meeting, in a show, in a waiting room, etc.).
	Being a passenger for more than one hour in a means of transportation (car, plane, train, bus, etc.).
	Lying down for an afternoon nap, if you can
	Sitting while talking with someone in person or on the phone
	Sitting quietly at a table after a meal without having had any alcohol
	Sitting at the wheel of a car stopped for several minutes in a traffic jam

Add up the answers to each question.

If your score is **10 or higher**, you have **marked sleepiness**.

If your score is **15 or higher**, you have **excessive sleepiness**.

In both cases, a consultation with a professional is recommended.

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## Questions

Write down any questions you want to ask your care team so you don't forget anything.






## Observations - Comments

Write down observations you feel are important : your symptoms, treatments, follow-up, energy level, spirit, etc.






## Upcoming appointments




## Resource people and contacts

Write down phone numbers, email addresses and websites that could be useful.






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## Things to do

Write down things you need to do : start exercising, change a bandage, change a lifestyle habit, etc.

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