

How to get a good night's sleep without medication



INTRODUCTION

This guide has been sponsored by the Michel Saucier Chair in Geriatric Health and Aging at the Centre de recherche de l'Institut universitaire de gériatrie de Montréal, affiliated with the Université de Montréal. The content is reproduced with permission from Charles M. Morin, Ph.D., based on his book *Vaincre les ennemis du sommeil*, published in 2009 by Éditions de l'Homme.

Many people would like to sleep uninterrupted for 10-12 hours per night. Few are lucky enough to achieve this goal. This booklet outlines what is realistic, and how you can get the best night's sleep for you by following 6 simple steps.



6 STEPS TO ENSURE A GOOD NIGHT'S SLEEP

STEP 1 - Start a sleep diary

Familiarize yourself with your baseline sleep profile to help you determine the best strategy to implement.

STEP 2 - Develop good sleep habits

Developing good sleep habits will improve your sleep.

STEP 3 - Dispel myths

Correct any false beliefs you may have concerning sleep.

STEP 4 - Manage daily stress

Various issues have an impact on sleep as you age: medical and psychological issues, medications, lifestyle changes (retirement for example), biological factors, or pain.

STEP 5 - Benefit from good sleep hygiene

Avoid caffeine, nicotine, alcohol and exercises before going to bed. The bedroom should be sleep-inducing: dark, quiet and at a comfortable temperature.

STEP 6 - Taper off sleeping pills

Follow the tapering-off program provided on page 19 under the supervision of your doctor or your pharmacist, if you are currently taking sleeping pills.

STEP 1 - Start a sleep diary

The sleep diary measures the efficiency of your sleep. Here is an example of a sleep diary:

	Monday
1. Yesterday, I took a nap from _____ to _____. (Indicate all your naps.)	1:50 pm to 2:30 pm
2. Yesterday, I took _____ mg of medication and/or _____ oz of alcohol to help me sleep.	Imovane 3.75 mg
3. (a) I went to bed at _____ and (b) I turned off the lights at _____.	10:45 pm 11:15 pm
4. After turning off the lights, I fell asleep in _____ minutes.	60 min
5. I woke up _____ times during the night. (Indicate the number of times.)	3
6. I was awake for _____ min each time. (Indicate how many minutes you stayed awake each time.)	10, 5, 45
7. This morning, I woke up at _____. (Indicate your final wake-up time.)	6:20 am
8. This morning, I got out of bed at _____.	6:40 am
9. My sleep efficiency is:	64%
10. When I got up, my general physical state was: 1 = exhausted, 2 = tired, 3 = average, 4 = rested, 5 = very well rested.	2
11. Overall, my sleep last night was: 1 = very restless, 2 = restless, 3 = average, 4 = deep, 5 = very deep.	3

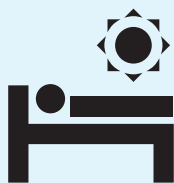
By dividing your total sleep time by the total time spent in bed, and multiplying by 100, you will get your sleep efficiency ratio.

$$\frac{\text{Total sleep time}}{\text{Total time spent in bed}} \times 100 = \text{Sleep efficiency ratio}$$

If your ratio is above 85%, this indicates that you are sleeping well. A ratio under 85% indicates that you need to take steps to increase efficiency, in order to wake up well-rested in the morning.

The first step is to fill in a sleep diary. Here is how to fill in it, line by line:

a) Instructions on how to fill in a sleep diary



Line 1 - Naps

Write the time you began to nap and when you woke up (including unintentional naps like when falling asleep watching TV).



Line 2 - Sleep aids

Indicate the medication you take to help you sleep (over-the-counter and/or prescribed) and the amount of alcohol you take to help you sleep.



Line 3 - Sleep times

Indicate the time you went to bed the night before. For example, if you go to bed at 11:00 pm but you read 15 minutes before turning off the lights, you should indicate both times (11:00 pm and 11:15 pm).



Line 4 - Time to fall asleep

Indicate your best estimate of how long it took you to fall asleep after turning off the lights.



Line 5 - Number of times you woke up

Indicate the number of times you woke up during the night.



Line 6 - Duration of wake-up periods

Estimate how long you stayed awake at night every time you woke up. If you woke up 3 times, you should indicate 3 different numbers (for example 10 minutes, 1 hour, 30 minutes).



Line 7 - Morning wake-up time

Indicate what time you woke up before getting out of bed.



Line 8 - Time you got out of bed

Indicate the time that you got out of bed to start your day.



Line 9 - Sleep efficiency

Indicate your sleep efficiency (see how to calculate it on page 7).



Line 10 - Fatigue level upon getting out of bed

Rate your morning fatigue level on a 1 to 5 scale (where 1 means not feeling great and 5 means feeling wonderful).



Line 11 - Sleep quality

Rate your sleep on a 1 to 5 scale (where 1 means a terrible night and 5 means an excellent night).

b) Calculate your sleep efficiency

To calculate your sleep efficiency, you need to divide your total sleep time by the total time spent in bed, then multiply by 100. Always work in minutes. For each factor, multiply the number of hours by 60 (minutes per hour) and add the extra minutes to get your number.

1. Total sleep time

Calculate the total time you spent asleep. Time awake in the middle of the night needs to be deducted from the total sleep time. Multiply the total number of hours by 60 (minutes per hour) and add the extra minutes to get your number in minutes.

Example: *From the example on the sleep diary on page 4, you fell asleep 1 hour after turning off the lights at 11:15 pm (lines 3b and 4). You estimate falling asleep at 00:15 am. You woke up at 6:20 am (line 7). Your time asleep would be 6 hours 5 minutes or 365 minutes ((6 hours x 60 minutes) + 5 minutes = 365). You woke up 3 times for a total of 60 minutes (line 6) without getting out of bed. Your total sleep time would be 305 minutes (365 minutes - 60 minutes = 305).*

Your total sleep time would be 305 minutes.

2. Total time spent in bed

Calculate the total time you spent in bed, from the time you went to bed to the time you got out of bed the next morning. Multiply the total number of hours by 60 (minutes per hour) and add the extra minutes to get your number in minutes.

Example: *From the example on the sleep diary on page 4, you went to bed at 10:45 pm (line 3a) and got out of bed at 6:40 am (line 8), your total time in bed would be 7 hours 55 minutes or 475 minutes ((7 hours x 60 minutes) + 55 minutes = 475).*

Your total time spent in bed would be 475 minutes.

3. Sleep efficiency

To calculate your sleep efficiency, divide your total time spent in bed by your total sleep time and multiply by 100.

$$\frac{\text{Total sleep time}}{\text{Total time spent in bed}} \times 100 = \text{Sleep efficiency}$$

Example:

$$\frac{\text{Total sleep time}}{\text{Total time spent in bed}} = \frac{305 \text{ minutes}}{475 \text{ minutes}} \times 100 = 64\%$$

** Note that if you got out of bed for the 60 minutes you were awake in the middle of the night, these 60 minutes should be deducted from your total time spent in bed calculation. This would make your sleep efficiency score higher.*

Fill in the sleep diary on the next page for one week, every morning after you wake up. Write down your best estimate. The times do not have to be exact.



Sleep Diary

Week of _____ to _____

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1. Yesterday, I took a nap from _____ to _____. (indicate all your naps.)							
2. Yesterday, I took _____ mg of medication and/or _____ oz of alcohol to help me sleep.							
3. (a) I went to bed at _____ and (b) I turned off the lights at _____.							
4. After turning off the lights, I feel asleep in _____ minutes.							
5. I woke up _____ times during the night. (Indicate the number of times.)							
6. I was awake for _____ minutes each time. (Indicate how many minutes you stayed awake each time.)							
7. This morning, I woke up at _____. (Indicate your final wake-up time.)							
8. This morning, I got out of bed at _____.							
9. My sleep efficiency is:							
10. When I got up, my general physical state was: 1 = exhausted, 2 = tired, 3 = average, 4 = rested, 5 = very well rested.							
11. Overall, my sleep was: 1 = very restless, 2 = restless, 3 = average, 4 = deep, 5 = very deep.							

STEP 2 - Develop good sleep habits



1. Take an hour before going to bed to relax.

Sleepiness is a gradual process and a relaxation period before going to bed helps quiet the mind.



2. Establish a going-to-bed routine.

Once your going-to-bed routine is established, it will signal to your brain and your body that bed time is coming soon and will induce sleepiness.



3. The time to go to bed is when you feel sleepy.

Look for sleepiness signs: yawning, heavy eyelids, etc.



4. After 20 minutes of tossing and turning, get out of bed.

If you can't fall asleep, leave the room and do a non-stimulating activity: quiet reading, listening to soft music. Go to bed when you feel sleepy again.



5. Stick to a regular wake-up time.

Getting up every day at the same time notwithstanding the time you went to bed the night before is conducive to getting a good night's sleep.



6. You should not read, use devices, or watch TV in bed.

It is recommended to only use your bed for sleeping.



7. Limit naps during the day.

Time spent sleeping during the day counts in your total sleep time. Napping after dinner could disturb your night's sleep.



8. Time spent in bed should equal total sleep time, as much as possible.

Your sleep efficiency ratio should be above 85% on most days.

Step 3 – Dispel myths

1. With age, most older adults function normally with 5-7 hours of sleep.



TRUE. Most older adults only need 5 to 7 hours of sleep per night. With age, sleep patterns change naturally: less time is spent in deep sleep, there are more frequent nighttime awakenings and napping during the day is more common. Consequently, it is normal for older adults to go to bed later and wake up earlier compared to when they were younger.

2. Sleep troubles are a normal part of aging.



FALSE. Although deep sleep is harder to achieve and you wake up more frequently as you age, not everyone over the age of 65 has trouble sleeping. Just as your physical strength and energy levels diminish as some people age, the same goes for sleep. It is normal to wake up once or twice at night. As long as you get a weekly average of 6 ½ hours of sleep per night and can lead a normal day the next day, you should not worry about your sleep.

Step 3 – Dispel myths

3. Sleeping patterns do not change as you age.



FALSE. Sleep patterns do change over time. Different factors explain this: normal aging, psychological and medical issues, lifestyle changes (retirement for example), your biological clock, physical discomfort or chronic pain and side effects of some medications can prevent you from getting a good night's sleep.

4. Sleeping pills can make you sleep like when you were younger.



FALSE. No medication can bring back the sleep of your youth. Sedative hypnotic drugs induce and maintain sleep but do not improve the quality of your sleep. You should not use sleeping pills, especially as you age. These drugs remain in your body longer, affect your memory and balance, and can contribute to the onset of dementia, even if you only use them a few times per month.

STEP 4 – Manage daily stress

Various strategies can help you manage stress. Some techniques help reduce the physical and mental reactions to stress. Others help you change your outlook on things (changing your thoughts, beliefs, perceptions). In this section, we offer a choice of strategies to help manage stress.

Whichever technique you select, you should use it regularly. For the first two weeks, you should practice every day. It is preferable to practice the technique during the day. When you master the technique, you will be able to apply it when you go to bed or if you wake up in the middle of the night.

You can find recorded or guided relaxation tapes in stores or download an app from the Internet. They can be useful if you never tried them before. For more techniques, refer to the book by Charles M. Morin, *Vaincre les ennemis du sommeil* or check out the website Sleepwell (mysleepwell.ca), which offers online cognitive behavioural therapies to improve sleep.



DEEP BREATHING

Deep breathing starts in your abdomen. If you put one hand on your upper belly and one hand on your chest, you will feel the difference between breathing with your abdomen or breathing with your lungs.

Find a comfortable place to lie on your back. Breathe in slowly, letting the air go through your lungs and into your abdomen. You should feel the hand placed on your abdomen rise. If you feel your hand on your chest lifting, then you are breathing too superficially. Breathe in and out slowly. Practice deep breathing for a few minutes at a time at different moments of the day.

Use deep breathing when you feel overwhelmed. This will help you relax and release muscle tension. The breathing will also help you fall back to sleep after waking up in the middle of the night.



MUSCLE RELAXATION

Relaxing each group of muscles in your body in a progressive manner through a series of tightening and relaxing movements will help you achieve mental relaxation.

- Hands, arms
- Forehead, scalp, eyes, nose
- Cheeks, mouth, lips, jaws, chin
- Neck and throat
- Shoulders, chest, upper back
- Abdomen and lower back
- Buttocks
- Legs and feet

Find a comfortable place to lie on your back. Take a few deep breaths to help you connect with your body. Start by tightening one muscle group for 5 seconds before releasing it for 20 seconds. Repeat this sequence for every group of muscles. Concentrate on the tightening for 5 seconds before relaxing and appreciating the release in your muscles for 20 seconds. Do one side of muscles before moving to the next side. It is recommended that you start with your dominant side (left if you are a leftie). You should feel the muscle group become heavier, as if sinking into the surface you are lying on. Once you have tightened and relaxed every group of muscles in your body, take a few seconds to feel your entire body, before counting backwards from 3 to slowly open your eyes.

Once you are comfortable with this technique, you will be able to omit the tightening step and simply do the relaxing part.

If you have arthritis or if this technique causes you discomfort, you should skip the tightening part and concentrate on relaxing your muscles only.

MODIFY THE WAY YOU THINK ABOUT STRESS

One way to manage stress is to change the way you view a situation. You must first be aware of the thoughts that are going through your mind that are creating stress. If you have trouble identifying your negative thoughts, go over the situation once it has been solved. List the thoughts you had in that particular situation. You can ask yourself : “What was I thinking ? What was I repeating in my mind ? How can I break this cycle?”.

MENTAL IMAGERY (Relaxation visualization)

This stress-reduction technique can bring about deep relaxation of your mind and your body. You can listen to a recording or create your own scenario and record it to play it back. This is an example of a relaxation visualization:

Lie down on your back. Find a comfortable position. Close your eyes and concentrate on your breathing. Feel your body relax. Visualize yourself walking on a white sandy beach. You can see the ocean and the sky touching the horizon. You can hear the waves gently rolling on the beach. The sand is warm under your feet. You feel good. You hear seagulls. Your bare feet are buried in the sand. You feel the sand going through your toes. With each wave, you feel your body relax more. A sense of wellbeing engulfs you. You linger in that peaceful moment. You now start reconnecting to reality by listening to the surrounding sounds. You open your eyes slowly. You know you can return to that peaceful spot when you want or need to.



STEP 5 - Benefit from good sleep hygiene



Caffeine is a stimulant and should be avoided at least 4 to 6 hours before bed time.



Nicotine is a stimulant. Smoking before bedtime or in the middle of the night can hinder your sleep.



Alcohol is a depressant. It can make you fall asleep but will wake you up shortly after.



A light snack before bed time may help you sleep. Eating too much will have a contrary effect, and will cause heartburn.



Exercise will deepen your sleep, especially aerobic activities. However, strenuous activity too close to bedtime will have a stimulating effect.



Keep your bedroom uncluttered and clean. Your mattress and pillow should be comfortable.



Keep your room at a comfortable temperature.



Sleep in a dark and quiet room.

STEP 6 - Taper off sleeping pills

Natural sleep cannot be bottled. Sleeping pills do not create natural sleep. Sooner or later there will be consequences.

If you have been using sleeping pills regularly for more than a few weeks, your body has probably become addicted. It is time to break the habit. Addiction may be more psychological than physical. Sleeping pills are a quick fix to relieve perceived sleep problems. To reduce the need for sleeping pills, some people use sleeping pills sparingly. However, even sporadic use can be dangerous by increasing fall risk, memory problems and motor vehicle accidents the next day.

On the next page, we offer you a tapering program that you can follow with the help of your physician or your pharmacist to break your need for sleeping pills.

Even if you are eager to put the risks of sleeping pills behind you, we urge you to follow the program as it is written. Doing so will reduce the risks of withdrawal symptoms.

We suggest you first start to master a few relaxation techniques. You can use them should sleep elude you at some point while tapering off the pills. Congratulations !



TAPERING-OFF PROGRAM

We recommend that you follow this schedule under the supervision of your doctor or your pharmacist.

WEEKS	TAPERING SCHEDULE							✓
	MO	TU	WE	TH	FR	SA	SU	
1 and 2								
3 and 4								
5 and 6								
7 and 8								
9 and 10								
11 and 12								
13 and 14								
15 and 16								
17 and 18								

EXPLANATIONS



Full dose



Half dose



Quarter of a dose



No dose