

# Advice you can sleep on

*From selecting a mattress to getting a good night's sleep*



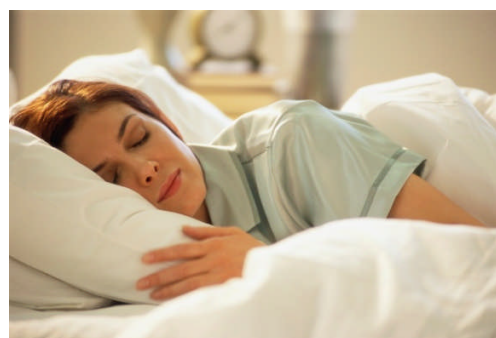
New England Spine Institute, PC

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## Selecting a mattress

Every day, we are asked for advice on how to select a mattress. Most people simply inquire whether a hard or soft mattress is most appropriate and are unfamiliar with the complexity of the answer. For a number of reasons, this is a complicated question to answer. (1) The average person spends 1/3 of their life asleep, and while most quality mattresses last at least 7-8 years, selecting one is a decision with long-term implications. (2) Mattress prices range from several hundred to several thousand dollars, making it a potentially costly decision. (3) These days, you can choose to sleep on air, foam, water, springs, or even a combination of a few. With the growing number of mattress choices, it is becoming more difficult to provide clear advice. (4) Keep in mind that the mattress that is right for one person might ruin a partner's restful sleep.



There are at least six key factors to consider when purchasing a new mattress: (1) the retailer, (2) warranty / durability, (3) comfort / support, (4) space, (5) price and (6) maintenance.

*Retailer* - Our first bit of advice is to select a quality mattress retailer. Examine the retailer's return policy. What happens if you are unhappy with the mattress? Can it be returned? What about your second choice? Some mattress retailers will allow the consumer to exchange a mattress after a set time (usually one month). Usually, if the replacement mattress is of a lesser price than the original, the balance is usually not refunded.

*Warranty / Durability* - Take note of the mattress' warranty. If the mattress breaks down or sags, for how long will it be replaced? Also, how long has the company been in business? Some custom retailers, who manufacture private labeled products, may not be around in 6-8 years when mattresses commonly demonstrate their durability.

Most mattresses have a 10 year warranty; some extend as long as 20 years. Keep in mind that these warranties are usually for material defects only. The mattress might look great on the surface, but wear out long before that time.

Many mattresses must be replaced every 7-8 years. A number of factors determine the life of the mattress. The materials used to manufacture it are important, while the body weight of the user has a heavy influence. When shopping, get clarity on the terms of the warranty.

*Comfort / Support* - Mattresses are perhaps the most awkward piece of furniture to test out in the showroom. You must remember to wear comfortable clothing and lie on the bed for 15 minutes. We do not recommend purchasing the extra-firm mattress, unless sleeping on the floor is most comfortable to you. Buy a bed that is big enough. If you share your bed, make sure that there is plenty of space available for bed hogs and thrashing children. If you cannot turn over easily on the mattress, it is probably too soft.

If you are considering a memory foam mattress, be sure to select one with temperature sensitivity. One of the most common complaints that we hear about this class of mattress is that they tend to be very hot.

If you are looking for a spring mattress, check the coil count. Coil construction and quality varies from company to company, but coils should start at 300 for a full, 375 for a queen and 450 for a king. Compare the diameter of the coils. The wider the diameter of the coil, the sturdier it is.

Quality tip: You cannot assess the quality of a mattress based solely on the number of coils it contains. A high coil count doesn't automatically mean it's a better product. It's a *combination* of top quality innerspring system and superior upholstery materials that makes the difference.

*Space* - If you are upgrading to a larger, or deeper, mattress, be sure that the box spring will be able to fit through your bedroom door. Some mattress companies sell a split box spring option, which makes them more easily maneuverable, without affecting their function.

Mattress Sizes & Denomination	USA & Canada Note: Dimensions are in inches (centimeters).
Twin/Single	39 × 75 (99.1 × 190.5)
Twin/Single XL	39 × 80 (99.1 × 203.2)
Double/Full	54 × 75 (137.2 × 190.5)
Double/Full XL	54 × 80 (137.2 × 203.2)
Queen	60 × 80 (152.4 × 203.2)
Olympic/Expanded Queen	66 × 80 (167.4 × 203.2)
California Queen	60 × 84 (152.4 × 213.4)
King	76 × 80 (193 × 203.2)
California King	72 × 84 (182.9 × 213.4)
Grand King	80 × 98 (203.2 × 248.9)

*Price* - It is essentially impossible to cost compare mattresses because each retailer has proprietary mattress names. Most retailers' price guarantees are deceptive, because there are essentially no two retailers that sell the same model names.

It is acceptable to negotiate the price at the smaller, owner-operated retailers. Most commercial retailers will not negotiate the price, but have payment plans that make this pricey acquisition more reasonable.

Remember, many of the newer mattresses are deeper than older versions. You may need to purchase all new linens.

*Maintenance* - Consider the maintenance needs of the mattress and whether you will be physically able to fulfill them. Will it need to be rotated and flipped?

Lastly, while investing a lot of your hard earned money into a mattress, also consider purchasing a new pillow. (See below for more details) We recommend a tubular pillow that provides support to the neck that can be used in conjunction with your traditional pillow. These are available at New England Spine Institute, PC.

Store your mattress receipt and warranty in a safe place, just in case it wears out prematurely.

## Cost saving considerations.

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### *Why are you considering a new mattress?*

There are many reasons to purchase a mattress. Some of the most common are as follows:

- It is “just time” to do so.
- The current mattress is breaking down.
- The current mattress is just not comfortable.
- You are experiencing pain in the morning. (See “Tips for getting a good night’s sleep”)
- You do not get restful sleep. (See “Tips for getting a good night’s sleep”)

### **It is just time for a new mattress**

Don’t rush when selecting a new mattress. Try out several brands, materials and price ranges. If possible, do not look at the price tag first. You might be surprised that some of the less expensive mattresses provide outstanding support for your body type. Coupled with a good warranty, a less expensive mattress could be a good solution for you.

If you share your bed with a finicky sleeper, be sure to shop together. Some mattresses are manufactured with different material densities on either side of the bed. Others allow the user to adjust the firmness of the mattress on each side. A good example is the Sleep Number bed, which has individual firmness controls on each side.

### **The mattress is breaking down.**

If your mattress is sagging, it might still be under warranty for material flaws. If it was purchased within the last 10 years, be sure to check with the retailer from where it was purchased.

If your bed is just too soft, place a ¼” sheet of plywood, or a bed board, between the mattress and box spring.

### **The current mattress is just not comfortable.**

Try sleeping on a different bed to see if you sleep better. Have you been on vacation recently? Was the bed more comfortable? Consider sleeping on a different bed in your home. If this helps, your bed may truly be the problem.

If your bed is too firm, purchase an egg-crate or foam cover. Different options are available at local wholesale warehouses and bedding stores. Some popular companies manufacture a memory foam mattress overlay. Also, a pillow top might work for you.

If you have not already done so, rotate your mattress every other month and flip it on alternate months.

### **You are experiencing pain in the morning**

Many people wake in the morning, or during the night, experiencing pain. Most often, the pain develops due to a poor sleeping position. Below are some of the most common complaints related to sleeping.

**Headaches** – Waking with headaches is very common. This might occur from allergies, grinding of the teeth (known as bruxism), sleep apnea (periodically stopping breathing while sleeping), neck muscle spasm and tightness or irritation of the joints and muscles of the neck and upper back.



Also, install a carbon-monoxide sensor in your home. Small amounts of carbon monoxide may give you a headache. Large amounts can be deadly.

**Hand numbness** – Many people experience the symptoms of nerve compression at night, or in the morning. The most common complaint is that the arm, or hand, “falls asleep” and must be moved about for relief. Common locations of nerve compression are found in the neck, elbow or wrist. Identifying the location of the nerve compression is the first step toward recovery. An examination at New England Spine Institute, PC can guide you to relief.

**Low back or neck pain** – In addition to the support of your mattress and pillow, the position in which you lie can stress the low back and neck. There are positions that should be avoided, and others that relieve stress on the neck and back. Read below for the details.

**Shoulder pain** – Inflammation of the shoulder tendons (tendinitis) or bursa (bursitis) may occur at night for a couple of reasons. First, sleeping with one arm over head, or sleeping on a

shoulder can injure it. Also, when the shoulder is still at night, inflammation may accumulate in the area, causing pain.

All of the above conditions very responsive to the conservative treatments that we offer. The doctors at New England Spine Institute, PC can lead you to relief after a thorough evaluation.

## Tips for getting a good night's sleep

Getting restorative sleep is an integral component of health and wellness. Inadequate sleep significantly compromises physical and mental performance. One report indicates that up to 25% of motor accidents are fatigue related. Inadequate sleep also increases lapses in memories, behavioral problems and mood disorders.

There are many reasons why people do not get restorative sleep. Potential sleep thieves include environmental, dietary and medical / physical factors. Each of these factors will be addressed below.

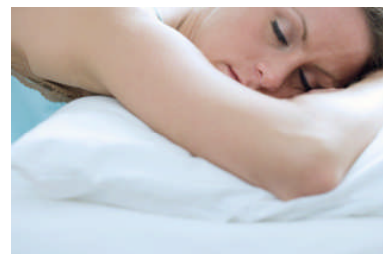
### What is the best sleeping position?

The most ergonomically beneficial sleeping position is on the back with one pillow beneath the knees and another supporting the head and neck. If you prefer to sleep on one side, place one pillow between the knees, another should support your neck and you may be most comfortable hugging a third. Attempt to avoid sleeping directly on the shoulder; rather, sleep on the shoulder blade. Also, a body pillow is a good option.

#### *Positions to avoid*

Sleeping face down can strain several areas of the body. First, the low back commonly hyper-extends (bends backward) and compresses the (facet) joints of the low back. Over time, the joints may become inflamed (swollen), painful and may degenerate prematurely.

Stomach sleeping also stresses the neck into extreme rotation and extension, which maximally compresses the facet joints of the neck. Lastly, sleeping face down commonly forces a person to hold his/her arms overhead. This may strain the shoulders and lead to rotator tendinitis and bursitis.



### Are ringing ears keeping you awake?

Ringing in the ears (tinnitus) can be maddening while you are attempting to sleep. A radio or television may drown out the noise, but this attempted solution may also keep some people awake. Many television and radio shows will call your attention to them, waken your brain activity and further disrupt sleep. Rather than leaving the radio or television on, consider purchasing a “white noise maker”.

The cause of tinnitus is often not identifiable. Some common causes include: damage to the organ of hearing from exposure to loud noises, grinding of the teeth or medication side effects (Aspirin is one of the most common). Tumors of the nerve that transmits impulses from the ear to the brain (an acoustic neuroma) are also an uncommon cause of tinnitus. It is wise to consult with your physician if you are experiencing tinnitus.

## A place to rest your head



Both the neck and head should be supported by your pillow. The ultimate objectives of a good pillow are to (1) hold your head and in a neutral position, (2) keep your head cool and (3) resist allergens. Pillows come in endless shapes, sizes and materials. All manufacturers seem to promise you a good night's sleep. Just like mattresses, you can choose to rest your head and neck on water, foam, feathers and latex products.

When purchasing a pillow, apply the same standards used to purchase a mattress. Most sales, however, are "final"; they cannot be returned.

For the best neck support, we recommend a tubular pillow that cradles the neck. These pillows can be used in conjunction with your traditional pillow to support the head. Tubular pillows are available at New England Spine Institute, PC.

Some pillow stuffing, such as down, does not draw heat away from the body, and can cause perspiration and skin irritation. Pillows such as the Climarelle claim to pull heat away from the body.

If you have allergies, avoid using a down pillow. As a general rule, replace your pillow every 6-12 months. Also, use a hypoallergenic pillow cover. Some people do best when replacing / cleaning the pillow case every night. Hot water is recommended when washing the pillow cover and case.



Do not go to bed with wet hair, but do wash your hair before going to bed. Why? By the end of the day, your hair is likely full of the allergens to which you were exposed during the day. Think about it. If you took the subway to work, walked through the city, were exposed to pollen, etc., allergens have been caught in your hair.

## Electronics in the bedroom

For years, there have been suggestions that the Electronic and Magnetic Fields (EMF) of alarm clocks by the bed, electric blankets, television and radios may cause cancer. The National Cancer Institute reports that there is not a strong relationship between low EMF exposure and cancer (<http://www.cancer.gov/cancertopics/factsheet/risk/magnetic-fields>).

## Eating for a good night's sleep

**Alcohol** – Drinking alcoholic beverages may cause a person to wake in the middle of the night, and prevent a return to sleep. This is particularly true about beverages that contain a lot of sugar, because, about 4-6 hours after consuming alcohol, your blood-sugar levels drops. This stimulates the release of adrenaline, which wakes you up. Adrenaline is your body's natural alarm clock that goes off to tell you to get up and eat. By consuming a small snack, you might be able to return to sleep in about 20-30 minutes, when the blood sugar level is leveled out again. (Done regularly, this is a good way to put on weight!)



**Caffeine** – Some people can drink caffeinated coffee just before going to bed, while others are kept awake by an afternoon cup. This is because of an enzyme that is required to break down (metabolize) caffeine. Some people do not produce a lot of this enzyme, therefore are slow caffeine metabolizers, which means that the stimulant remains active in their body for a longer time.

In addition to losing sleep, slow metabolizers of caffeine who drink coffee have a higher risk of non-fatal heart attack (up to 36% more likely). Even higher risks were found for younger slow-metabolizers. Those under 50 who drank two or more cups of coffee were up to four times more likely to have a heart attack than slow-metabolizers in their age group who drank little or no coffee.

**Fluids** – In order to prevent waking to go to the bathroom, try not to take in too much fluid just before going to bed. Many common medications and nutritional supplements are diuretics, which increase urination.

**Protein** – A small amount of good quality protein, coupled with a complex carbohydrate is best for relaxing the brain and preparing it for sleep. You might want to avoid eating too much protein before bedtime. Protein-rich foods that contain tyrosine, an amino acid that stimulates brain activity, can act as a pick-me-up. Foods that contain a high level of tyrosine include cottage cheese, seaweed, soy, egg whites, shrimp, quail and game meats.

**Tryptophan** - Tryptophan is a chemical in some foods that is converted to melatonin and serotonin. Both of these chemicals are thought to induce sleep. Tryptophan is the chemical in turkey that has been credited with causing drowsiness after Thanksgiving dinner (although the carbohydrates play an equally important role). When you pair tryptophan-containing foods with carbohydrates (crackers, sugars, cereals), it helps calm the brain and allow you to sleep better.

For even better sleep, add some calcium to your dinner or nighttime snack. Calcium helps the brain use and process tryptophan. Experiment with your food habits to determine your optimum evening meals and snacks.

Dairy foods are a good source of tryptophan. So, a cup of warm milk before bed really does have sleep inducing benefits. Other tryptophan-containing foods include oats, bananas, poultry and peanuts.

Some other examples of foods that may help you sleep include:

- A small bowl of oatmeal or cereal with low-fat milk
- Yogurt with granola sprinkled on top
- Half bagel or crackers with peanut butter, 1 ounce of cheese or a slice of deli turkey on top

- Sliced apple with 1 ounce of cheese

**Herbal tea** - There is some evidence to show that chamomile tea can assist with falling to sleep. Unfortunately, the amount that is necessary to help with sleeping is about 5 cups per day.

**If you have heartburn** - If you are prone to heartburn, avoid eating heavy or spicy foods, especially before going to bed. Eating too much may cause you to feel physically uncomfortable when lying down.

Some people who suffer with GERD (gastroesophageal reflux) experience discomfort nearly every night. One simple solution may include raising the head of the bed. Raising the head of the bed about 2-3", by placing some risers (bricks or blocks of wood) under the head of the bed can provide some relief.

## Nutritional Supplements

There have not been many scientific studies that investigate the efficacy of most nutritional products for helping with sleep. There are significant potential risks associated with the use of Jamaican dogwood, kava kava and L-tryptophan. It is wise to consult your physicians prior to taking any herbal supplements.

Some common agents that are used for sleep disorders include melatonin, valerian, 5-hydroxytryptamine, catnip, chamomile, gotu kola, hops, L-tryptophan, lavender, passionflower, skullcap, and valerian. German chamomile, lavender, hops, lemon balm and passionflower are reputed to be mild sedatives but need much more experimental examination.

*Melatonin:* Melatonin is a natural hormone that the body produces in order to control the body's sleep cycle. It is a natural dietary supplement that has been studied for its ability to decrease the amount of time that it takes to fall asleep. Current studies show that as little as .1 to .3 mg of Melatonin may be effective in helping people to fall asleep quicker and sleep longer. Reported side effects include grogginess and depression.

*Valerian:* Valerian is an herbal extract that has been used by individuals managing anxiety and has also been studied as a sleep aid. Some studies have shown that Valerian is effective improving sleep quality. Other studies report that Valerian is no more effective than placebo. Reported side effects include headache or a feeling of "hangover".

There is preliminary, but conflicting, evidence suggesting Valerian officinalis L. has efficacy as mild hypnotics over short-term use.

*Chamomile:* Chamomile is an herbal sleep remedy that has been used for many years and is most often consumed as chamomile tea. It is reported to

### Not all vitamins are created equal

Buying vitamins can be confusing. Many people will purchase the lowest cost vitamin, not realizing that they are just flushing their money down the drain.

Purchasing vitamins that are manufactured by a pharmaceutical company resolves these concerns. At New England Spine Institute, PC, we carry Anabolic Laboratories nutritional supplements. They are a giant step above "pharmaceutical grade" vitamins.

There are, at least, three key characteristics to a good vitamin .

#### Purity

Pharmaceutical laboratories regulate and test the contents of all of vitamin ingredients. You will not find any lead, arsenic or other contaminants in regulated pills. *The same cannot be said for generic brands.*

#### Precision

When formulated in a pharmaceutical laboratory, nutritional supplements must contain precise amounts of each ingredient that is printed on the label. Otherwise, the facility can be shut down. *The same cannot be said for generic brand vitamin factories.*

#### Dissolvability

If your vitamins do not dissolve, they cannot be absorbed. Generic brand factories that tightly compress and pack their vitamins simply create an expensive flush.

have a calming effect on people and also has anti-inflammatory and anti-bacterial properties.

*5-hydroxytryptophan (5-HTP):* 5-HTP is used to boost serotonin production in the body and is also the precursor of melatonin, the sleep cycle regulator of the body. Some studies show that 5-HTP is effective in reducing anxiety, depression, and insomnia and also may be effective in controlling appetite and pain. Some studies show no benefit of 5-HTP supplementation.

Natural sleep remedies may have side effects and risks. It is important to discuss with your physician all herbal supplements that you are currently taking and any supplement or herbal extract that you are considering to add to your daily regimen.

## Getting Up in the Middle of the Night

Most people wake up one or two times a night for various reasons, although many people do not remember waking. If you find that you get up in the middle of night and cannot get back to sleep *within 15-20 minutes*, you might do best not remaining in the bed and "trying hard" to sleep. Get out of bed. Leave the bedroom. Read, have a light snack, do some quiet activity, or take a bath. You will generally find that you can get back to sleep 20 minutes or so later. Do not perform challenging or engaging activity such as office work, housework, etc. Do not watch television.

How you are feeling when you wake in the middle of the night might provide some insight into solutions for preventing it in the future. Do you wake with a racing heart, a full bladder, a cluttered and busy mind?

## Exercise:

Try to exercise 20 to 30 minutes a day. Daily exercise often helps people sleep, although a workout soon before bedtime may interfere with sleep. For maximum benefit, try to get your exercise about 5 to 6 hours before going to bed.

## Habits

**Nicotine** - Researchers who tracked the brain activity of smokers while they slept found that they spent less time in deep sleep than nonsmokers. Smokers were also about four times as likely to complain that their sleep did not leave them well rested.



**Schedule** - Stay on schedule. For many people, it is best to go to bed and wake up at the same time, even on weekends. This is particularly important for people who suffer migraine headaches.

If you experience difficulty getting to sleep, develop a consistent bedtime ritual. For some people, taking a warm shower or bath is very relaxing. Read, meditate, or just take time to clear your mind before going to bed.

## Room atmosphere (brightness, temperature and humidity)

### *Temperature and humidity*

Ceiling fans, air-conditioners and open windows may cause you to experience a slight chill that triggers tension of the neck and upper back muscles, or a slight shiver. The same may occur if you sleep with your head against an outside wall that is cold. This is particularly problematic if you do not have a headboard. A shiver is the body's attempt to stay warm. Muscle tension that is sustained for a long time can cause pain and stiffness that persists throughout the day.

As a general rule, the bedroom should be kept slightly on the cooler side. As temperature rises, the capacity of it to hold water is diminished. Warm air is drier air. Dry air may lead to chapped lips, a dry throat, irritated eyes and frequent sinus infections.

The optimum relative humidity level is generally considered to be between 40% and 50%. Anywhere between 30% and 60% is acceptable. A figure below 50% is recommended to help control dust mites which are bad for allergy sufferers. Consider purchasing a Hygrometer for the room.

If necessary, use a warm mist humidifier. Warm mist humidifiers boil the water before releasing it into the air. This reduces the chance of releasing bacteria into the air. Unfortunately, warm mist humidifiers are slightly more expensive to run, yet they are quieter than cool mist devices.

If you use a humidifier, be sure to keep it clean. Most manufacturers recommend that the entire humidifier be cleaned weekly with a bacteriostatic solution. Do not use ultrasonic or evaporative pad humidifiers. Bacteria grow on the filters and pads of humidifiers, so when the humidifier is turned on, the bacteria (and algae in the water) are sprayed throughout the room.

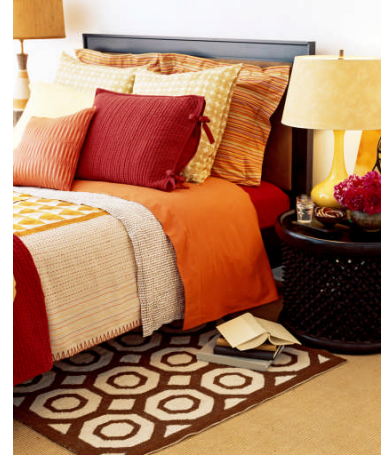
### *Light*

Bright lights can disturb sleep. Our bodies are naturally programmed to wake up when it is light out and to go to sleep as it becomes dark. If you live in an area that has a lot of outdoor lighting (in the city, or near a lot of street lights), buy room darkening shades, lined drapes or eye shades. On the other hand, if you need the assistance of the sun to wake you in the morning, purchase room lightening shades. If your bed partner likes to read in bed while you attempt to sleep, recommend a book light, rather than a reading lamp.

### *Noise*

If noise is disturbing your sleep, consider:

- ear plugs
- white noise, which comes from a noise-making machine such as a fan or generator
- rugs over hardwood floors
- heavy curtains or drapes
- double-pane windows
- relaxing music or tapes



## Aromatherapy

Experiment with aromatherapy. Smell is the strongest of the senses and can be used as a sleep aid. Lavender is a popular herbal sleep aid.

## Bedroom Respiratory Irritants

### Dust Mites



Each time you squeeze a pillow, shake a blanket, or just lie on your bed, dust mites (and their feces) are released into the air. For people with respiratory disorders, or allergies, these allergens can make for a very uncomfortable night.

Some simple guidelines that you should follow:

- Wash bedding and tumble pillows (at least) once weekly
- Encase pillows, mattresses and box springs in dust mite allergen control covers. They will keep moisture and skin scales out and prevent existing allergens from escaping.
- Keep stuffed (and live) animals off beds. Stuffed toys are miniature pillows!
- Dust and vacuum often. It's best to do this before removing the bedding for washing.

**One VERY disgusting statistic** - The weight of the average mattress doubles after ten years due to dust mite infestation, and the weight of the average pillow increases 10% after one year.



### Down Bedding

When down feathers break down, small, sharp airborne fibers are created that can be inhaled. These inhalants can irritate the respiratory tract. Down comforters may trigger skin irritation. Also, the dust mite known as *Dermatophagoides pteronyssinus* loves down feathers and eating skin scales.

Consider replacing all down bedding, including down pillows, with cotton or synthetic quilts or bedspreads.

### Waking up

If you are like many people, the sound of an alarm clock is as abrasive as a dental drill. Alarm clocks can make your heart pound and adrenaline levels rise. This sudden release of stress hormones into your blood stream is no way to start a peaceful day.

For a peaceful way to waken in the morning, consider the Soleil Sun Alarm or The Gong Alarm.

## Night time worries and some solutions

Are you kept up late waiting for your children to come home? Consider setting an alarm and leaving it outside your bedroom. If your child is not home by curfew to turn off the alarm, you will be alerted.

If you find your thoughts turning to worries at bedtime, keep a worry journal by your bedside. Jot down a brief note about what's on your mind. The next day, start your plan to relieve your brain of worries by creating a solution for the problems listed. Also, problems often seem smaller in the daylight. However, if your thoughts continue to be a problem, consider talking to your doctor or a psychotherapist.



## Not feeling rested?

Some people never feel rested, despite a "good night's sleep". If this is happening to you, it might be time to consult your primary care physician. A sleep study might be in order.

There are a number of reasons why some people do not get restorative sleep. One of the most common is sleep apnea. The Greek word "apnea" literally means "without breath." Sleep apnea is a condition during which people stop breathing while sleeping. This condition deprives the body (and brain) of much needed oxygen and results in fatigue. If sleep apnea goes untreated, it can cause high blood pressure and other cardiovascular disease, memory problems, weight gain, impotency, and headaches.