



Healthy and Happy Monthly Newsletter

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WAKE UP! The Truth about Sleep...It is not Overrated:

Part II Sleep Techniques and Remedies

Not surprisingly, getting a good night's sleep helps you to be more energetic, productive, emotionally balanced and mentally sharp the next day; and yet, over one third of all Americans report that they do not get enough sleep. Some 50 to 70 million American adults suffer from sleep and wakefulness disorders, and many of these cases go unreported. As we explored in the February newsletter, part one of our sleep series, not getting enough sleep is a significant risk factor for mental stress, anxiety, depression, obesity, hypertension, heart disease, diabetes, and high cholesterol, just to name a few. It is clinically evident that getting at least seven to eight hours of sleep can result in optimal mental alertness, better work and school performance, a better quality of life and an overall better sense of wellbeing. Would you be interested to know that there are several safe, effective, and inexpensive ways to establish and maintain consistent, healthy sleep habits? If so read on as we explore some sleep techniques and natural sleep aids that can help you to get back on track with your sleep schedule and enable you to feel more like the "you" that you remember before you began to experience a stifled sleep pattern.

Look back to the picture on the back cover of the February newsletter, a humorous yet sobering depiction of the prescription sleep medication market, one of the fastest growing segments of the pharmaceutical industry. Some of the most recent statistics indicate that between the years 2000 and 2004, prescription sleep medication use nearly doubled for the 20-44 year old age group, and rose nearly 85% for children aged 10-19 years old. While these prescription sleep aid medications are effective and can be helpful, there are side effects. Also, the alarming rate at which the use of these prescriptions has increased is curious and noteworthy. Often, evening and late night television will play prescription sleep aid commercials, a clear indicator that these medications are a profitable endeavor for the pharmaceutical industry.

The extended use of prescription sleep medications may make insomnia worse over the long term, and many of these medications can be habit-forming. Moreover, these drugs often do not treat the underlying cause of sleep problems, and serve only as a crutch instead of a cure. Sleep medications are generally intended to be used intermittently and for brief periods of time, but many people find themselves using these prescription sleep aids for several months and even years at a time, often switching from one to the next to determine which one works the best for them. Unfortunately, long-term prescription sleep aid use, as well as switching to determine which will produce the best results can alter brain chemistry and make it more difficult to ever become sleep aid free again. Fortunately as we will see, there are many natural solutions to address the causes of insomnia and sleep problems that are non-habit forming, side effect free, and can help to improve overall health.

Our sleep-wake cycle is regulated by our brain and is better known as our circadian rhythm. Present in humans and animals, circadian rhythm is generated by an internal clock that is synchronized by dark-light cycles and other factors, such as environmental stimulants or pacifiers. This internal clock accounts for falling asleep and waking up around the same time every day even without an alarm clock.

Circadian rhythm can be disrupted by changes in daily schedule, especially if you sleep and wake differently during the week than you do on the weekend or if you take frequent long naps during the day. For example, if you are used to getting up at 5:30 a.m. to get to work on time during the week, but you sleep in until 10 a.m. on Saturday and Sunday, it is no wonder that you feel brain fog all day at work on Monday. Or, if you stay up until 2:00 a.m. and then you take a two to three hour nap during the day to catch up, it is likely that you will be more alert during the evening when you are supposed to be

winding down and getting ready to go to sleep. Also, keeping a regular sleep-wake schedule, that is going to sleep and waking up at the same time each day, will help you to feel more energized and refreshed than if you sleep the same number of hours each day but at different times.

Regulated by our brain, nervous system chemicals such as melatonin and cortisol tell our mind, body, spirit when it is time to go to sleep and wake up. Sleep deprivation results in an elevation of cortisol, which promotes the development of insulin resistance, a significant risk factor for obesity and diabetes; more on melatonin in the paragraphs to come. By keeping consistent sleep hours, we can strengthen our circadian rhythm, helping us to fall asleep more easily and wake up feeling more refreshed.

With this in mind, the cure to sleep difficulties and eliminating feeling fatigued, brain fogged, and run down during the daytime can often be found in your daily routine. Your sleep habits, bedtime habits, and day to day lifestyle choices are of enormous importance in determining the quality and duration of your nightly slumber. So, in short, the key to getting a good night's sleep is consistency. But achieving consistency can be easier said than done, and so having certain tools in your "sleep tool box" can help you to fine tune the process and get you back on the road to sleep reposition.

Our quality of sleep is mainly affected by our choices. That is to say, what we eat and drink, what we do before bedtime, what we have in our bedroom and next to our bed, stress, and health conditions all play a role in the sleep that we experience each night. Once you begin to focus on these factors, lifestyle changes can be made, if you are willing, and your sleep duration and quality can be markedly improved.

What you eat and drink can have a significant impact on your ability to fall asleep or stay asleep. Certain foods and beverages can induce drowsiness, while others can produce wakefulness. Obviously, energy drinks, sodas and coffee contain caffeine, a psychoactive drug that can produce a heightened state of awareness. Also, the sugars in these beverages and in high carbohydrate foods can be taxing on the liver, making it more active, which can cause you to awaken or be restless during periods of sleep. The same goes for alcohol. Many people like to enjoy a glass of wine before bedtime to produce drowsiness, but the rebound effect, the detoxification of the alcohol that takes place by the liver once you are asleep, can actually cause you to awaken prematurely to an alert state of mind, making it difficult for you to fall back asleep.

Also, as a good rule of thumb, try to avoid eating a big meal at least two hours before going to bed. A big meal may produce drowsiness, but the risks far outweigh the benefits. The most typical problem that people have after eating and then going to sleep right away is gastro-esophageal reflux. Many people who have this condition experience a burning pain in their chest and throat, causing stomach contents or acid to come up into the throat or mouth.

Eating a meal and then going right to sleep can put pressure on the diaphragm causing you to snore. Other than being seriously annoying to the person trying to sleep next to you, snoring can often lead to lack of air, and lack of oxygen to the body and brain, increasing adrenaline and blood pressure, making the heart pick up its pace. Similar to sleep deprivation, other complications such as obesity, insulin resistance, diabetes, heart attack and stroke are all possible risk factors with eating a large meal directly before bedtime.

If you must ingest food or drink before bedtime, try a small snack like a slice of bread with some peanut butter and a small glass of warm milk. The carbohydrates from the bread can help to produce drowsiness and protein from the peanut butter can help to provide the amino acid tryptophan which is used to produce the hormones melatonin and serotonin. Milk is an excellent source of complete protein, containing all nine essential amino acids, including tryptophan. So, this small snack is an ideal "sleep-inducing" combo. Actually, a glass of warm milk can do the job quite well by itself if ingested about twenty minutes before bedtime.

What you do before bedtime and have in your bedroom can also play a major role in determining sleep duration and quality. It is important to allow yourself a dark, quiet, comfortably cool sleep environment. Sleeping for seven to eight hours in nighttime darkness promotes a healthy blood level of melatonin which can significantly suppress the growth and proliferation of certain cancers such as breast cancer tumors in women and colon cancer in men, and sleeping while exposed to light during the daytime or at night causes a significant drop in blood levels of melatonin and can alter the production of serotonin as well. Even small amounts of light from stimulants like cell phones, computers, alarm clocks, and idle television monitor red lights, can significantly decrease melatonin production, so do yourself a favor and avoid these stimulants at least an hour or two before bedtime, and try sleep in complete darkness.

In general it is easiest to sleep in a quiet environment. It may be that we are biologically programmed this way from early human development, but for some reason we tend to react or respond to external stimuli when we sleep. This may have been useful if you were a cave dweller and a lion or bear was trying to sneak up on you to eat you while you slept, but it is not very advantageous when you have a dripping faucet or a car blasting its stereo booms past your house at 3 a.m. in the morning.

There is no definitive temperature that is ideal for sleep, but in general, temperatures above 75 and below 54 degrees Fahrenheit will disrupt or prevent a good night's sleep. Sleep temperature can be affected by everything from room temperature, to bed clothes and the number of blankets, sheets and pillows that accompany you as you try to sleep. Most research reveals that a slightly cool room can increase your chances of getting a good night's sleep. The reasoning behind this is that a cooler room mimics what occurs inside your body when it falls to its lowest internal temperature about half way through your eight hour sleep cycle.

One of the easiest ways to fall asleep is to train your mind to drift into the alpha-state and trigger the brain to begin producing and releasing melatonin. The alpha-state is a condition of relaxed, peaceful wakefulness devoid of concentration and sensory stimulation. Various methods of meditation can be used to achieve the alpha state, many of which are simple, enjoyable, and can work consistently and effectively night after night. When the body is exposed to light, information from the eyes and skin are transmitted to the brain to keep it from releasing melatonin. When it is dark, melatonin is released and triggers the process by which we fall asleep. **So, the first step is to make sure that your bedroom is absolutely as dark as possible.**

Once you are in your bedroom, in complete darkness, lay down in your bed, on your back, with your head on the pillow and your arms either at your sides or crossed comfortably over your abdomen. Then close your eyes and imagine a rainbow.

The colors of the rainbow are what make up natural sunlight and this is where your transition into the alpha-state will begin. Memorize the colors of the rainbow, even right them down if you have to until you have them set in your mind. Red, orange, yellow, green, blue, indigo, violet, these are the colors of the rainbow. **Step two**, begin with the first color, red, and visualize it in your mind. Associate each color with an object that shares the same color. Tell yourself that as you go through the colors in your mind you will relax and calm yourself more and more and that by the time you reach the last color you will be in the alpha-state and ready to fall asleep.

For example, for red, imagine a strawberry, tomato, or sliced open watermelon. Once you can see that image in your mind, let it turn into a red mist and dematerialize away. Go to the next color, orange, imagine an orange, tangerine or apricot, see that image in your mind, and let it turn into an orange mist and dematerialize away. Next, yellow, imagine an unpeeled banana or a lemon, visualize that image in your mind, let it turn into a yellow mist and float away as you go to the next color, green. Imagine a field of green grass as far as the eye can see, then let it mist away as you go on to the next colors blue and indigo. Imagine vibrantly rich, cool blue ocean water, the kind that you would see in the Caribbean. Let the cool blue surround your body and feel the calm that it brings over you as it mists away, finally leaving you with the color of violet. As you begin to visualize violet in your mind, imagine that you are lovingly surrounded by a soft, velvet, violet blanket. Feel the comfort that it offers, sense the calm and security that it provides. By systematically visualizing and eliminating the colors of the rainbow, you are left with darkness instead of light, and a sedated as opposed to an active state of mind. I've used this technique often ever since I was a child, sometimes I only get through the first few colors and I'm asleep. This is my favorite, no cost, sleep technique; but for additional useful tools, read on.

Essential oils are also a synergistic accompaniment to meditative sleep techniques like the one mentioned above. For example, **chamomile, lavender, sandalwood, valerian, and ylang ylang** are all essential oils that can help to sooth the central nervous system and promote feelings of calm and peace. You can use the oils in your bedroom or on your bedding to create an environment of stress relief and tranquility. A plug-in diffuser or reed diffuser can be used to fill the room with the aroma and essence of the oil shortly before you lay down, or you can simply place a couple of drops on a piece of cotton or a handkerchief and place it in your pillow case to create a similar sensation.

If meditation and essential oils do not do the trick, there are some beneficial homeopathic, herbal, and supplement sleep aids that have proven for many people to be quite successful for helping to fall asleep and stay asleep as well.

One of the best and most widely used homeopathic sleep aid remedies is **Calms Forte** by Hyland's Homeopathic. It is a synergistic formulation that contains **passiflora**, for wakeful or restless sleep from exhaustion, **avena sativa**, for stress, nervousness, or nervous headache, **humulus lupulus**, for drowsiness with incomplete sleep, and **chamomilla**, for nervous irritability. It also contains the five phosphate cell salts, **calcareo phos**, **ferrum phos**, **kali phos**, **natrum phos**, and **magnesia phos**. These cell salts help the body to deal with stress, nervous tension, night terrors, yawning, sleepwalking, sleeplessness from worn or stressed nerves, business troubles, restlessness, and heat during sleep.

Valerian root extract is a sedative herb that is the natural form of the synthetic prescription drug Valium. Similar to valium, valerian root can improve the quality of sleep and reduce the time needed to fall asleep. Valerian is most beneficial when used in short durations, around two weeks, as the body may develop a tolerance and make it less effective over time. Therefore, after using it for a while, for best results, take a break from it and then resume it a week or two thereafter.

5-HTP and melatonin in supplement form can be useful for insomnia and wakefulness, especially during times when you are trying to fall asleep. Melatonin can help you fall asleep and stay asleep without suppressing REM (rapid eye movement) sleep like prescription sedatives and sleep aids do. Research indicates that the sedative, sleep promoting, effects of melatonin are most noticeable in individuals who's melatonin levels are low. Melatonin appears to be most effective in treating insomnia in the elderly, as research indicates that melatonin production by the pineal gland in the brain tends to decline with age, and that low melatonin levels are most common in this age group. Also, characteristically low levels of melatonin can be found in night shift workers, as discussed briefly in the February newsletter. If you have a normal to high level of melatonin then taking melatonin in supplement form will be less likely to help you get better sleep.

5-HTP is a quick acting, effective and consistent supplement for treating insomnia and sleeplessness. It is effective for dealing with sleep disorders other than insomnia as well. 5-HTP is short for 5-Hydroxytryptophan. Often 5-HTP and tryptophan are used interchangeably, but 5-HTP is a derivative of the amino acid tryptophan, which is found in protein rich foods like turkey, and milk. Neither 5-HTP nor tryptophan can be created in the body, so you must get adequate amounts through food or supplementation. The body converts 5-HTP to serotonin, which is responsible for many functions of the brain and body.

5-HTP increases REM sleep as well as deep sleep, and can make sleep more restful and rejuvenating. 5-HTP accomplishes this by shortening the amount of time that you spend in sleep stages 1 and 2, and lengthening the time that you spend in the deep sleep stages 3 and 4, without lengthening total sleep time. When you sleep more deeply and dream more efficiently you are more likely to wake in the morning with your physical and physiological batteries fully charged.

5-HTP bypasses the brain's light regulation system that controls the release of melatonin and results in an increased production of neurotransmitters like serotonin and norepinephrine, which are believed to help promote feelings of wellbeing and happiness. The release of these neurotransmitters triggers the production of melatonin regardless of how much light is present. This benefit can provide the same sleep enhancing effects as melatonin, but with the additional benefits that come from producing an increased serotonin level, as melatonin supplementation alone does not directly enhance the production of serotonin. For more explanation and dosing information on melatonin and 5-HTP, please consult with Patty Frieda, pharmacist and Certified Clinical Nutritionist at Neels Pharmacy.

While there are a number of effective sleep techniques and remedies available, we are all unique and different and there is no such thing as one size fits all scenarios. Therefore, it is important to always consult with your physician or pharmacist to determine which one(s) may be most appropriate for you, especially if you are pregnant or nursing. The information presented here embodies some of the most practical and efficient techniques and aids to achieving a consistent and reinvigorating night's sleep, and it is our goal is to help you understand that sleep is vitally important to your overall health and wellbeing. Sleep is not overrated, but a gift that you should give to yourself, and allow yourself to experience to the best of your ability on a regular nightly basis. So take what we have discussed here and apply it to your life, for the rest of your life, and it is likely that you will begin each new day with a renewed sense of self, and a sharper more energetic mind and body that will help you to be all that you can be, from this day going forward. Sweet dreams my friends.