

Live Healthy and Be Well!

“Benefits of good sleep”

--Stephen Jarrard, MD, FACS

A good laugh and a long sleep are the best cures in the doctor's book. ~Irish Proverb

In my medical practice, I get a lot of questions about sleep. As you age and take on more stress and responsibilities, the benefits of healthy sleep patterns become more and more obvious. A lot of people talk to me about having trouble falling and staying asleep and wish they could get a good night's sleep. Too often, we turn to medicines for relief in this area, which are often a poor and artificial substitute. The best sleep comes like many other things, through healthy habits and training yourself in this regard! Let's take a few minutes to look at what sleep is, what it does for us, and then discuss some methods to improve our *sleep hygiene*.

Human sleep is a naturally recurring state in which the consciousness is put on hold. When you are asleep, you don't really experience physical sensations, and your voluntary muscle activity is suspended – lest you actively “live out” your dreams! Sleep is very important. It is a time of growth and rejuvenation of the immune, skeletal, nervous and muscular systems, and also a time for our brains to process information gained during the day, convert memory from short to longer term, and keep our emotions in proper balance. I'm sure we all agree that if we are deprived of enough sleep, “We all become tall two year olds.” (from *Farmer's Almanac*).

Sleep is divided into two main forms: Rapid Eye Movement (REM) and Non Rapid Eye Movement (NREM). NREM Sleep, which is usually the first stages of sleep, is further divided into four stages. Stage I is the state between wakefulness and sleep. The muscles relax, the eyes roll and begin to open and close. This will usually progress to Stage II where it now becomes harder for you to be alert or “awake.” In Stage III sleep, you are now less responsive to the environment, you will not respond to most stimuli. This deepens even more in Stage IV sleep, and you will go in and out of these stages in a cyclical pattern during the night.

REM sleep is also known as “paradoxical” sleep, because even though your brain wave patterns are almost the same as being awake and active, your muscles are almost totally paralyzed and it is harder to rouse you than any other stage of sleep. If we took your vital signs and measured your oxygen consumption during REM – they would often be higher than when you are awake! Your eyes do move rapidly during REM sleep (thus, the name), and this is the state where active dreaming occurs. The average adult goes into REM sleep about every 90 minutes during sleep. The latter half of your “night” is also more dominated by REM sleep activity, with the first part of your night being more restful deep sleep. This goes along with the saying that “every hour of sleep before midnight is worth two after.” While the exact reason for REM is not completely known, we do know that without it – you will not experience the true benefits of sleep. People deprived of REM sleep in controlled experiments found it harder to learn complex tasks,

their memory of events was not as accurate, and they became more irritable, emotionally fragile, and depressed.

Your sleep cycle is determined by two events, and the amount of time since your last sleep period is not necessarily the greatest factor. What tends to make you “sleepier” is when two things coincide: The level of melatonin in your system increases, and the lowering of your core body temperature. These two events are controlled by your *circadian* (meaning “about a day”) clock which is not easy to change. That is why people who have different shifts find it hard to adapt to different schedules, and why people who get up early as a habit may have trouble “sleeping in” when they get a day off. It is also of questionable value to “store up” sleep in advance – that won’t really work. You will still find yourself tired and sleepy, and feel cold in the middle of the night! However, we all do know that one can “make up” for lost sleep – and you will often sleep more and longer when you have been deprived of sleep or are very tired.

“So, Doc, how can I get a good night’s sleep?” Actually, there are very few true insomniacs, and most people sleep more than they estimate. When people are in the hospital, for example, many will say they “laid awake all night – I didn’t sleep a wink.” But, these same folks can be seen napping and asleep during the day – their normal routine is thrown off, and they get their days and nights mixed up, a common occurrence. In our society it has become too easy to turn to medicines for answers, when establishing healthy habits could be more beneficial.

There are some good medicines that can be used to help getting to sleep. The only problem with these medicines is that if you use them, they often do work very well. In fact, they work so well that you want to use them again, and again, and again....and before you know it, you cannot sleep *without* them, and are now dependent on a pill for sleep. Most of these medicines that require a prescription are controlled for good reason – they can and do become habit-forming with regular use, and can have significant side effects. I always caution people to use these drugs occasionally and not every night.

Better ways to get healthy restful sleep involve establishing good sleep habits and a routine. Settle yourself and your environment down as the evening progresses; don’t do anything to cause anxiety or stress, if you can help it. Eating earlier in the evening can also help settle you down for sleep. Turn down the house lighting, and make sure the area you’re sleeping in is as quiet as possible. Some people like to watch a little TV or read a book before sleep – whatever suits you as long as it tends to have a calming effect. A “night cap” or drink of alcohol can help relax, as alcohol is a sedative to the nervous system. But, again, reliance on a chemical is an artificial technique, and too much alcohol may inhibit the REM sleep you need to truly get a good night’s sleep. Studies show that the average adult needs between 7 and 9 hours of sleep per day, with adolescents needing a bit more (still developing and growing). The use of a *Siesta*, or short “power nap” in the afternoon, has been shown to lower some people’s blood pressure, but it may just be the “slowing down and relaxing” effect as much as the actual nap. Still, if you don’t sleep enough at night, a short nap during the early afternoon might be a good option.