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SLEEP AS AN ESSENTIAL HEALTH PRACTICE

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The importance of sleep is unquestionable, and yet, this is a health practice that many of us forgo daily. Although a third of our lives is spent sleeping, few people have a sound understanding of the process of sleep. The feeling of sleep as akin to death, the lack of control, and the unreality of the state all make sleep a mysterious (and sometimes terrifying) subject, one that is difficult to discuss.

The benefits of sleep are many:

- **Improves learning and memory.** Sleep helps the brain commit new information to memory.
- **Positive impacts on metabolism and weight.** Chronic sleep deprivation may cause weight gain by affecting the way our bodies process and store carbohydrates. Lack of sleep can alter hormone levels that affect appetite. Improving sleep habits can aid in weight management and also add more energy.
- **Increases safety and performance.** A lack of sleep contributes to the tendency to fall asleep during the day that increases the risk of injury while driving, hampers daily activity and focus. Being well rested not only reduces the risk for injury, but increases the overall quality of performance.
- **Better mood.** Sleep deprivation may result in irritability, impatience, inability to concentrate, and moodiness. Conversely, improved sleep increases appreciation of friends, hobbies, and other positive activities.
- **Strengthens immune system.** Having good, quality sleep on a regular basis helps the body repair and serves as a protection against all the stressors, both physical and emotional. Sleep strengthens the immune system to help fight colds, flu and other infections.
- **Reduces stress.** A good night's sleep can lower blood pressure and reduce levels of stress hormones. It can also aid in our coping skills, enabling us deal better with life events.

With all of these positives, we are still sleep-deprived, living on caffeine and burning the candle at both ends. Why? What makes sleep so difficult? We moderns fill our lives with work and family responsibilities that crowd out time for sleep. Often recreational activities, such as television, impose on sleep time. In addition 20% of the general population has some level of sleep abnormality.

Different ages require different amounts of sleep, with children needing about 10 hours and older individuals only 6 hours. Teenagers require more sleep secondary to significant growth and bodily change. It is not just the number of hours of sleep, but also the timing of the sleep. The internal biological clock recognizes changes in circadian rhythm, which regulates sleep; in response to these changes, the brain releases melatonin, a chemical that affects one's ability to go to sleep. For example, teenage brains tell their bodies to go to sleep at 11 p.m. At the same time, their bodies still

require at least nine hours of sleep per night. Studies of students with earlier and later school start times show that later start times positively impact school performance, and these students are not as easily depressed or irritable. Students with later school start times self-report being more motivated to do schoolwork and activities.

The actual process of sleep remains a mystery. Scientists do not well understand the process of hibernation that some mammals undergo; at the same time the impact of sleep on the brain and body is unclear. A recent study by Dr. Nedergaard of the University of Rochester, reported on National Public Radio, described the actual sleep state as one in which the brain is washed of harmful toxins, which may reduce the risk of Alzheimer's disease. "During sleep, the flow of cerebrospinal fluid in the brain increases dramatically, washing away harmful waste proteins that build up between brain cells during waking hours."

Regardless of the actual mechanical aspects of sleep, the need to prepare and practice good sleep habits is essential for health. Some tips for improving one's sleep include:

- Go to bed and get up on a regular schedule.
- Keep your bedroom as quiet and dark as possible. This often requires the use of opaque shades and heavy curtains that can muffle disruptive intermittent noise from outside.
- Avoid daytime naps. This can seriously interfere with nighttime sleep. If you do nap, limit the nap to 40 minutes or less (anymore sleep can leave you feeling groggy).
- Do not cheat on one night's sleep in the hope of catching up the next night.
- Avoid caffeine and nicotine late in the day.
- Avoid more than one alcoholic drink. Rather than promoting relaxation and sleep, excessive alcohol has the opposite effect, diminishing the quality of sleep. Used regularly, alcohol tends to lose its sedative effects..
- Exercise regularly. Try jogging or aerobics in the late afternoon. Mild exercise -- such as stretching or walking -- is okay two or three hours before bedtime
- Establish pre-sleep rituals, spend the time before retiring doing something relaxing, such as 10 minutes of reading or taking a warm bath. Do not exercise or engage in vigorous mental activity.

This topic is both complicated and essential to health. While this review is not comprehensive, the need for each person to be aware of these issues and move toward more positive sleep habits is clearly important to his/her individual wellness.

References:

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Discussion of circadian rhythms

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