Catching an extra hour of sleep on November 4, 2007, when our clocks “fall back,” marking the end of Daylight Saving Time. The idea of shifting the time clock was first envisioned by a thrifty Benjamin Franklin over 200 years ago. Franklin hoped to conserve energy and cut back on use of artificial lighting. By shifting our clocks in the Spring and Fall seasons, we can take advantage of natural sunlight. Almost every industrialized country has since adopted the annual time change.

Daylight Saving Time saves energy dollars, but has some negative human costs. Humans have their own, internal, precision timepiece or “biological clock” that controls more than 100 different body functions as diverse as blood pressure, body temperature, stress hormones, urinary output and pain threshold. Each fluctuates systematically over the 24-hour day, to best serve the needs of the brain and the body. All of these internal body functions have to shift to accommodate the external time change.

In a healthy, well-rested person, the body can adjust to a 1-hour time change within a few days. Unfortunately, many Americans are chronically sleep-deprived or have sleep problems. The added stress of the time change can aggravate sleep problems. Specific high-risk groups for such problems include those with untreated sleep disorders (such as snoring and sleep apnea, insomnia, narcolepsy) and the chronically sleep-deprived (such as shift-workers, commercial drivers, young people). As we adjust our external clocks every year, we should really think about what makes our internal clocks tick. The Elliot Center for Sleep Evaluation encourages all to take steps to maintain a healthy internal body clock, to make sleep a priority, and discuss sleep problems with their healthcare provider.

**How to get a good night’s sleep**

*Synchronize your biological clock daily.* Go to bed at a set time each night and get up at the same time each morning. Consistent bedtimes and wake-up times reinforce the regular rhythm of your body clock and all associated body functions. Disrupting the sleep schedule can lead to insomnia. Even “sleeping in” on weekends makes it harder to wake up early on Monday morning because it re-sets your sleep cycles for a later awakening.

*Wind down at night.* Physically relaxing before bed prepares the body for a long period of deep and sustained sleep. We can train ourselves to associate certain restful activities with sleep and make them part of the bedtime ritual. Reading, taking a warm bath, or other relaxing routines can make it easier to fall sleep.

*Don’t get ticked off.* Managing emotional stress makes us feel better and protects sleep from the worries of the day. Feeling nervous, depressed or angry can interfere with falling asleep and can cause nightmares. Our best problem-solving takes place during the day when are minds and bodies are alert and well rested.

*Exercise – running during the day.* Exercise energizes us for several hours, so exercising during the day and improving fitness will boost alertness. Daily exercise also helps us to sleep more soundly at night. However, working out too close to bedtime may interfere with sleep. For maximum benefit, try to get your exercise at least five hours before going to bed.

*Lighten your day and darken your night.* Sunlight is nature’s tool for shifting the body clock from sleep to wakefulness. Exposure to bright sunshine or artificial lights each morning has an alerting effect. Light helps us wake up and boosts energy and mood. Accordingly, limiting light exposure before bed and sleeping in a dark environment decreases activation of the brain and promotes sound sleep.

*Keep your clock free of foreign substances.* Caffeine, nicotine, and alcohol artificially stimulate or sedate the body. Avoid drinks that contain caffeine, which acts as a stimulant and keeps people awake.

Jeanetta Rains, PhD, Elliot Center for Sleep Evaluation
Smokers tend to sleep very lightly and often wake up in the early morning due to nicotine withdrawal. Alcohol promotes sleep initially but then leads to lighter overall sleep quality and interferes with normal cycles of deep sleep and dream sleep. 

Clock doctor. Sometimes, our best efforts to maintain good sleep and wake habits do not solve the problems. Individuals should see a doctor when they have persistent trouble falling asleep at night or feel tired the next day. This can be a sign of a sleep disorder.

For more information about the Elliot Center for Sleep Evaluation or consultation, call 663-6680.

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Sleeplessness Can Have BIG Consequences

Sleepiness due to chronic lack of adequate sleep and is a big problem in the United States, affecting many children as well as adults. Children and even adolescents need at least 9 hours of sleep each night to do their best. Most adults need approximately 8 hours of sleep each night.

When we get less sleep (even one hour less) than we need each night, we develop a “sleep debt.” If the sleep debt becomes too great, it can lead to problem sleepiness – sleepiness that occurs when you should be awake and alert, that interferes with daily routine and activities, and reduces your ability to function. Even if you do not feel sleepy, the sleep debt can have a powerful negative effect on your daytime performance, thinking, and mood, causing you to fall asleep at inappropriate and even dangerous times.

Problem sleepiness has serious consequences – it puts adolescents and adults at risk for drowsy driving or workplace accidents. In children, it increases the risk of accidents and injuries. In addition, lack of sleep can have a negative effect on children’s performance in school, on the playground, in extracurricular activities, and in social relationships.

Inadequate sleep can cause decreases in: performance, concentration, reaction times, and consolidation of information learning.

Inadequate sleep can cause increases in: memory lapses, accidents and injuries, behavior problems, and mood problems.

Signs of Sleep Disorders

A child who has not obtained adequate nighttime sleep is at high risk for symptoms of physical and/or mental impairment. The child may fall asleep in school, have difficulty concentrating in school and other activities, and/or exhibit behavioral problems. Some children who are sleepy become agitated rather than lethargic and may be misdiagnosed as hyperactive. Not getting enough sleep is one cause of problem sleepiness.

Undiagnosed/untreated sleep disorders can also cause problem sleepiness. Children, as well as adults, can suffer from sleep disorders. Parents should talk to their pediatrician about a possible sleep disorder if their child has any of the following:

- Snoring
- Breathing Pauses During Sleep
- Problems with Sleeping at Night
- Difficulty Staying Awake During the Day
- Unexplained Decrease in Daytime Performance