Introduction
Sleep is an essential component of good health. However, sleep is often sacrificed to meet demands of daily living.

Most people want to sleep well, but some have difficulty getting enough high-quality sleep.

Educational Goals:
Participants will have information on:
• Stages of sleep.
• Amount of sleep needed.
• Biological mechanisms that trigger sleep.
• Relationship of sleep and health.
• Common sleep disorders.
• Tips for getting a good night’s sleep.
• Resources for additional information on sleep.

Intended Audiences:
K-State Research and Extension faculty and volunteers, teachers, adult and youth organizational leaders and members, health educators, parent education educators, senior center staff and volunteers, sleep center staff and clientele.

Suggested Delivery Methods:
• Select only a portion of the fact sheet to highlight. For example, focus on the sleep-health connection or tips for getting a good night’s sleep.
• For fun, dress in a bathrobe, pajamas, and slippers as you give the presentation. Bring along a few extra bathrobes so participants can get in the spirit.
• Serve a light snack and warm milk early in the presentation.
• Start and/or end the program with a ringing alarm clock.
• Distribute fun items that could help with relaxation such as bath salts, sleep masks, stress balls, or earplugs.

Community Awareness Activities:
• Educational displays at health and county fairs
• Brief report on a sleep-health connection at meetings
• Public service messages stressing the importance of sleep
• Presentations to groups such as parents and parent educators, older adults, service clubs, and business organizations
• Stories in school newsletters about the importance of children and adults getting adequate amounts of sleep

Roll Call Suggestions
Participants could respond to roll call with one of the following:
• A habit that helps me sleep well.
• A situation or problem that sleep helped me solve.
• Amount of sleep I would like to get.

Leader Talking Points:
Cardiovascular disease: A good night’s sleep is essential for a healthy heart. Healthy adults who are persistently deprived of proper sleep suffer increased risk of hypertension, which results in a higher risk of heart attack or stroke.

Immune system: Research reveals that a lack of sleep can reduce the body’s response to the flu vaccine. Sleep-deprived volunteers given the flu vaccine produced less than half as many flu antibodies as those who were well rested and given the same vaccine.

Diabetes connection: In a study of healthy young men who were allowed only four hours a night of sleep for six nights, the subjects had insulin and blood sugar levels mimicking those seen in people who were developing diabetes. Although not attributed as a cause of diabetes, another study found that women who slept less than seven hours a night were more likely to develop diabetes over time than those who slept between seven and eight hours.
Beware the night shift: Because the schedule required of night-shift workers is at odds with powerful sleep-regulating cues, falling or staying asleep during daylight hours may be difficult. Night-shift workers are at greater risk of being in car crashes when they drive home from work. The fatigue experienced by night-shift workers can also be dangerous due to mistakes made by overly tired workers. Night-shift workers are also more likely to have physical problems, such as heart disease, digestive disturbances, and infertility, as well as emotional problems. These problems might be related, at least in part, to the workers’ chronic sleepiness.

Young children and sleep: Children who do not have adequate sleep can create parenting and behavior challenges. Issues related to going to bed, staying in bed, bedwetting, defiance, shortened attention span, irritability, and fussiness can often be attributed to lack of restorative sleep.

Parents may also be sleep-deprived, causing them to make quick decisions and take expedient actions instead of allowing time for more considered, rational solutions to child behavior challenges.

Teens and sleep: Teenagers require a minimum of nine hours of sleep but usually get one to two hours less. Teens who are considered “high achievers” or who participate in multiple extracurricular activities are at increased risk for sleep problems. Teens working at jobs that cut into sleep time may also be at risk.

To help teens get enough sleep, establish the same regular bedtimes and waking times during the week and on the weekend. Remove electronic distractions in the sleeping environment. Prioritize sleep for the whole family. Encourage teens to cut back on caffeine.

Older people and sleep: With age, some individuals become more sensitive to hormonal changes, physiological conditions, and environmental conditions such as light, noise, and temperature. Such sensitivities make it more difficult to get continuous and consolidated sleep.

Insomnia, a perception or complaint of inadequate or poor sleep, can include difficulty falling asleep, frequent awakenings, waking too early and having difficulty falling back to sleep, and waking unrefreshed.

Medical conditions that increase with age are often associated with sleep problems and disorders. Sleep problems might be associated with hypertension and heart disease, heart failure, stroke, menopause, gastrointestinal disorders, cancer, Alzheimers, Parkinson’s and cognitive problems, depression, or arthritis.

Effective treatment for insomnia includes adopting healthy sleep habits, behavioral therapy, prescription medications, and other therapies.

Parasomnias: Parasomnias are disruptive sleep-related disorders that occur during arousals from REM (rapid eye movement) sleep or partial arousals from non-REM sleep. Parasomnias are characterized by undesirable physical or verbal behaviors, such as walking or talking during sleep. They occur in association with sleep, specific stages of sleep or sleep-wake transitions.

Types of parasomnias include: nightmares, sleep terrors/night terrors, confusional arousals (sleep inertia or drunkenness), sleepwalking, sleep talking, nocturnal leg cramps, sleep paralysis, sleep bruxism (excessive grinding or clenching of teeth), sleep enuresis (bedwetting), REM sleep cardiac arrhythmias, sleep-related painful erections, impaired sleep-related penile erections, REM sleep behavior disorder (acting out violent dreams), nocturnal paroxysmal dystonia (seizure-like episodes during non-REM sleep).

Some parasomnia disorders are more common in children, who tend to outgrow them. People who are sleep-deprived also experience some of these disorders, including sleepwalking and sleep paralysis. Sleep paralysis is also common in people who have narcolepsy, a condition marked by excessive and overwhelming daytime sleepiness, even after adequate nighttime sleep. Certain medications or neurological disorders appear to lead to other parasomnias. These parasomnias tend to occur more in elderly people.

If you or a family member has persistent episodes of sleep paralysis, sleep walking, or acting out of dreams, talk with your doctor.

Restless leg syndrome: Restless leg syndrome (RLS) is a neurological disorder characterized by unpleasant sensations in the legs and an uncontrollable urge to move them for relief.

These sensations usually occur deep inside the leg, between the knee and ankle; more rarely, they occur in the feet, thighs, arms, and hands. Sensations can occur on one side of the body, but most often affect both.

Individuals affected with the disorder describe the sensations as burning, creeping, tugging, or like insects crawling inside the legs. The sensations range in severity from uncomfortable to irritating to painful.

Because moving the legs (or other affected parts
of the body) relieves the discomfort, people with RLS often keep their legs in motion to minimize or prevent the sensations. They may pace the floor, constantly move their legs while sitting, and toss and turn in bed. A distinctive aspect of the condition is that lying down and trying to relax activates the symptoms.

For those with mild to moderate symptoms, many physicians suggest certain lifestyle changes and activities to reduce or eliminate symptoms. Decreased use of caffeine, alcohol, and tobacco may provide some relief. Physicians may suggest taking supplements to correct deficiencies in vitamin E, iron, folic acid, and/or magnesium. Taking a hot bath, massaging the legs, or using a heating pad or ice pack can help relieve symptoms in some patients.

Physicians also may suggest a variety of medications to treat RLS.

RLS is generally a lifelong condition for which there is no cure. Symptoms can gradually worsen with age. Current therapies can control the disorder, minimize symptoms and increase periods of restful sleep. In addition, some patients have remissions.

Pronunciation Help:

- adenosine: a-den-a-seen
- cortisol: cort-a-saul
- cytokines: sigh-ta-kines
- ghrelin: gray-lin
- melatonin: mel-a-toe-none
- leptin: lep-tin

References and Resources

American Academy of Sleep Medicine
One Westbrook Corporate Center, Suite 920
Westchester, IL 60154
708-492-0930
www.aasmnet.org

American Insomnia Association
www.americaninsomniaassociation.org

American Sleep Apnea Association
www.sleepapnea.org

Narcolepsy Network, Inc.
www.narcolepsynetwork.org

National Heart, Lung, and Blood Institute (NHLBI)
www.nhlbi.nih.gov/disorders/restless_legs/detail_restless_legs.htm

National Heart, Lung, and Blood Institute (NHLBI)
Information Center – Your Guide to Healthy Sleep
P.O. Box 30105
Bethesda, MD 20892-0105
301-592-8563 TTY: 240-629-3255
nhlbiinfo@nhlbi.nih.gov
www.nhlbi.nih.gov/sleep

National Sleep Foundation
1522 K Street, NW
Suite 500
Washington, DC 20005
Phone: 202-347-3471
nsf@sleepfoundation.org
www.sleepfoundation.org

Restless Legs Syndrome Foundation
www.rls.org


Whose kids? Our kids! Teens and Sleep, A.J. Schwichtenberg and Stephen Small, B3706-13, University of Wisconsin
EVALUATION

Before today how many hours of sleep did you normally get at night? __________

After receiving information on *Sleep: Want It, Need It, Get It*, how many hours sleep each night do you hope to get? _____________________________________________________________________________________

What did you learn about the connection between health and sleep that you did not know before receiving information through *Sleep: Want It, Need It, Get It*? ________________________________________________

Do you plan to make any changes to help you get a good night’s sleep? Yes ___ No ___

If yes, what change(s) do you plan to make? ______________________________________________________
________________________________________________________________________________________

If no, what sleep habits do you believe help you get a good night’s sleep? ______________________________
________________________________________________________________________________________

What additional information about sleep would you find helpful? _____________________________________
________________________________________________________________________________________

Return evaluations to: Donna Martinson, Box 28, Junction City, KS 66441