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Wellness Activities

- **Volley Ball:** Nicolas Berger sets up the volleyball net on front lawn Tues. & Wed. 12-1:00 PM & Thurs. 5-6:00 PM. Call Nicolas Ext.3434 for more info.
- **Healthy Back Cross Training:** Taught by HIP instructor on site. 3/30-6/3/05 Wed. & Fri. 11-11:55 AM in Bldg. 27. STAP fund: Yes
- **Smoking Cessation:** A free consult by P. L. Sachs, M.D. Questions? Dr. Gherman Ext. 4382.
- **Body Sculpting & Step Aerobics:** Taught by Ziba Mahdavi, this stretching class is offered on Tues. & Thurs. 12-1PM in Bldg. 27. Questions? Please call Ext.4458 or 2281.
- **Ballet/Lyrical Jazz:** Taught by Vicky Brey, Friday 5:15-6:30 PM in Bldg. 27. Questions? olga@SLAC.Stanford.EDU
- **Aerobics:** Taught by Cecilia Glower, Mon. & Wed. 12-1PM, Tues. & Thurs. 5-6 PM in Bldg. 27. Questions? Michelle Steger @ x.3011 or Bette Ferandin @ x 2601.
- **Stress Counseling:** Rosan Gomperts & Kevin Carr, Stanford Help Center counselors at SLAC on Tues. 10 -4 PM, Thurs. 8-11AM in the Medical Dept. Call Ext.2281 for an apt. at SLAC, or (650) 723-4577 for an apt. at the Stanford campus office.
- **Massage:** Mer Baldoza, CMT, is at SLAC medical Tues., Wed, Thurs., and Fri., 3:30 PM. Call Ext. 2009 to schedule an appointment.
- **Gym:** weights & equipment in NW corner of Bldg. 34. Call Diane Jenkins to join or for more info Ext. 2215.
- **Soccer:** On the front lawn Mon. & Thurs. at noon. Call Rafael Miranda x 4471 or Tu Ly x 4442

The Need for Sleep

Wake up to the Risks of Shortened Slumber



Do you toss and turn at night, or have problems falling asleep or staying asleep? Do you have trouble staying awake and alert during the day? If so, you may be one of the estimated 50-70 million Americans who have a sleep disorder. Experts estimate that about one-third of adult

Americans will experience some sort of sleep disorder in their life time. And, while many sleep disorders can be treated, most of them go undiagnosed.

Why we sleep remains something of a mystery. Dr. Michael Twery, director of the National Center on Sleep Disorders Research at NIH's National Heart, Lung and Blood Institute, says, "Sleep originates with the timing of our biological clock. The biological clock operates in almost all of our tissues." A particular region of the brain called the suprachiasmatic nucleus, he says, operates as the master biological clock. It orchestrates what Twery calls a "symphony" of **hormones** and other changes that prepare our body for sleep. It's clear that our body needs this sleep, because of what happens when we don't get enough of it.

"Too little sleep or not enough restorative sleep can seriously affect the way we think, behave, form memories and perform at work and school," explains Dr. Merrill Mitler, program director for sleep research at NIH's National Institute of Neurological Disorders and Stroke. "A continued lack of sleep also puts us at risk for mood disorders such as depression and can lead to poor concentration and poor judgment, social problems, greater risk of car crashes and increased risk of substance abuse."

There is also what Twery calls the "unseen side" of inadequate sleep. Because the timing of sleep is linked to a symphony of chemical reactions throughout the body, Twery explains, it's also linked to our health in more subtle ways. "When these chemical reactions become misaligned," he says, "they can contribute to problems with our metabolism

and our **cardiovascular** system, and can eventually lead to increased risk of disease.”

Twery recounts one set of experiments in which otherwise healthy young adults developed resistance to insulin after a few nights of only 4 hours of sleep. Insulin is a hormone needed to convert sugar, starches and other food into energy. When the body can't use insulin properly, **diabetes** can develop. After the researchers allowed the young adults to go back to 8-hour sleep periods, the problem reversed within days.

Other studies have found that people who get less sleep tend to have higher rates of obesity, heart disease, high blood pressure and diabetes. A great deal of research is now focused on understanding the underlying links between sleep and these health factors.

How much sleep do we need? Adults usually need at least 7-8 hours of sleep a night to feel fully rested when they are awake. School-aged children and teens need at least 9 hours. Children in preschool need between 10 and 12 hours a day, and newborns need 16-18 hours.

Many people unfortunately consider sleep a low priority and try to stay awake as much as they can to do more work, watch some TV or fit other things into their busy days. But others can't sleep because of an underlying problem. In fact, there are more than 70 different types of sleep disorders.

Diagnosing a particular sleep disorder can be difficult, but Mitler says that new tools are giving scientists a better understanding of sleep and sleep-deprived states. One key tool is functional imaging, which provides real-time images of brain activity during sleep and the sleep-wake stages to learn which areas of the brain may be involved in sleep disorders.

NIH researchers continue to explore the causes and consequences of sleep problems such as insomnia, chronic sleep deprivation and obstructive sleep apnea (which you can read about in the following story). Even if all these disorders aren't fully understood, however, many of them can be treated.

If you frequently experience excessive daytime sleepiness or have problems sleeping, talk to your doctor or a sleep specialist. Mitler recommends that, before you go, you keep a sleep diary of when you usually go to bed, how long it takes you to fall asleep, when and how many times you wake during the night, and when you wake in the morning. The diary should also include what you ate that day, drinks you had at night containing caffeine or alcohol, use of medicines, smoking and exercise you've done. The records may show a pattern or give the doctor other clues to better diagnose your condition.

Tips to Getting a Good Night's Sleep

- Keep a regular sleep and wake schedule.

- Avoid caffeine and cigarettes in the late afternoon and don't drink alcohol to help you sleep.
- Avoid going to bed on either a full or an empty stomach.
- Use your bedroom primarily for sleeping. Sleep in a dark, quiet, well-ventilated space with a comfortable temperature.
- Relax before going to bed. Take a warm bath, listen to soothing music, meditate or try relaxation or breathing exercises.
- Face your clock away from the bed to avoid focusing on time if you awake before morning.
- If you can't fall asleep within 20 minutes of going to bed or wake early and can't get back to sleep, get out of bed and try a relaxing activity such as reading until you become drowsy.
- Regular exercise can help improve certain sleep disorders. However, don't exercise within 2 hours of bedtime.
- Avoid household chores, paperwork or other stimulating activities for at least 2 hours before bedtime.
- Use over-the-counter or prescription sleep aids only for short periods of time and under the direction of your doctor. Some sleep aids can make you drowsy during the day and cause other side effects.

Web Sites

www.ninds.nih.gov/disorders/sleep_apnea/detail_sleep_apnea.htm

www.nhlbi.nih.gov/health/public/sleep/healthy_sleep.htm

www.nhlbi.nih.gov/health/dci/Browse/Sleep.html

starsleep.nhlbi.nih.gov

www.nhlbi.nih.gov/about/hcnsdr

Do What Moves You

Push Past Your Obstacles and Get Active

People come up with lots of reasons to avoid physical activity. They feel too tired, too busy, too out of shape, too old... and the list goes on. But these obstacles pale in comparison to the many benefits of boosting your activity, even by a modest amount. Regardless of your age, gender or athletic ability, physical activity can enrich your health and well-being.

What can physical activity do for you? Coupled with a healthy diet, it can help you achieve and maintain a healthy weight. It can help prevent or delay the onset of chronic diseases like diabetes, heart disease, high blood pressure and some types of cancer. Your overall well-being may brighten as well, because physical activity can help you reduce stress, gain energy, sleep better, and fight depression and anxiety.



Some physical activities—such as weight-bearing exercises like jogging, tennis and weight lifting—can also help you build and maintain healthy muscle and bone. That's important at any age, but especially critical for older adults.

Experts recommend that adults get at least 30 minutes of moderate-intensity physical activity most days of the week. Moderate-intensity activities make you breathe harder and make it more difficult to talk, but you should still be able to carry on a conversation.

Children and adolescents need double what adults do. If weight loss is your goal, aim for at least an hour of moderate- to vigorous-intensity physical activity each day.

If you're reluctant to get physically active, think about the top 3 hurdles you face. Write them down, then list possible solutions. If expense is a concern, choose free activities like walking around parks or nature trails. If weather is an obstacle, consider walking around the mall or working out with fitness videos at home.

If the demands of family, friends and work leave you pressed for time, add physical activity to your daily routine. Try taking lunchtime walks, using the stairs instead of the elevator or enjoying an evening stroll around the neighborhood. Even everyday chores, like household cleaning and yard work, can get you moving.

Some people prefer structured exercise. No matter what kind of physical activities you choose, be sure to include some that are fun. Maybe you'd enjoy dancing, gardening

or bike riding. Pick whatever activities fit your schedule, and set your plan in motion.

Wise Choices

Ease Your Way Into a Physically Active Life

- First, ask your physician what type and amount of physical activity is right for you.
- Start slowly. Work up to daily physical activities of 30 minutes to improve health, 60 minutes to lose weight and 60-90 minutes to help maintain weight loss.
- Ask family and friends to join you, and make it fun. Form walking groups with co-workers, play with your children outside or take a dance class with friends.
- Choose a variety of activities to prevent boredom and keep your mind and body challenged.
- Listen to your body. Consult your physician if you experience chest discomfort, dizziness, severe headache or other unusual symptoms.
- Keep an activity log to track your progress. Note when and how long you worked out, what activity you did and how you felt during your workout.
- Set both short-term and long-term goals to keep motivated.
- Set rewards. Celebrate every success—you earned it!

New Medical Department Staff



We are happy to announce a new member to our Medical Department staff, Medical Assistant Nora Iniguez.

Nora comes to us from Alliance Medical, and brings a wonderful smile, great work ethic and a strong desire to provide good health services. Her enthusiasm to learn makes her a great asset to the SLAC Medical Department.

So if you are in the vicinity of the SLAC Medical Department, stop in and give Nora a nice SLAC welcome.