

June 10, 1982

News

The University of Texas Health Science Center at Dallas
5323 Harry Hines Boulevard Dallas, Texas 75235 (214)688-3404

CONTACT: Ann Williams
Office: 214/688-3404
Home: 214/375-6043

***Patients with sleep disorders
can be helped in new center at
Presbyterian Hospital of Dallas

DALLAS--Most American adults have some problem with sleep. Either they are sleepy when they want to be alert or they are wide awake when they want to go to sleep. This may be only a minor inconvenience for most. But for some, sleep/wake disorders interfere with work and can even be life-threatening.

Beginning June 15, a diagnostic center for patients with sleep disorders will be available at Presbyterian Hospital of Dallas. The new Sleep/Wake Disorders Center is one of the few in the nation designed and constructed to be a sleep center, says Dr. Milton Erman, medical director of the center and assistant professor of Psychiatry at The University of Texas Health Science Center at Dallas. Director of the sleep center is Dr. Howard Roffwarg, professor of Psychiatry at UTHSCD.

Sleeping and waking are two different states and need to be considered separately. "A person can be healthy while awake and seriously ill while asleep," said Dr. William Dement at a recent sleep symposium in Dallas.

Dement presented an introduction to somnology, the study of sleep disorders, at the symposium, which was co-sponsored by Presbyterian Hospital and the health science center.

Now director of the Sleep Disorders Clinic and Research Center at Stanford University School of Medicine, Dement has been involved in sleep research almost since it began in the early 1950s.

Many adults are chronically sleepy because they do not get enough sleep. "Alcohol, a heavy meal, a warm room or a boring lecture--these things do not make a person sleepy--they unmask sleepiness," says Dement. "None of these would put a healthy 10-year-old to sleep." Pre-adolescents are 99 percent efficient in their sleep/wake cycle, the researcher said. "On the other hand, college students are almost pathologically sleepy."

Among the sleep complaints that will be handled by the center are insomnia, hypersomnia (excessive sleepiness), disorders of the sleep/wake schedule and other problems associated with sleep, sleep states or partial sleep arousals such as sleepwalking, bed-wetting and night terrors. Sleep studies can also be used to diagnose illnesses not specifically related to sleep.

Sleep apnea is a potentially lethal disorder in which the patient stops breathing many times during sleep. The sleep apnea patient is most often an obese man over 40 although the disorder does affect both sexes at every age.

Excessive daytime sleepiness (hypersomnia) is usually the symptom that causes the patient to seek help. But sleep apnea can often be suggested just from a tape recording of the patient's choking, gasping snores.

Although patients may deny the daytime sleepiness and think they are getting enough sleep at night, they are sleepy during the day because of hundreds of brief awakenings during the night. The sleep apnea patient stops breathing during sleep until the carbon dioxide level in the blood increases enough to signal the brain that something is wrong. The patient wakes up enough to start breathing again but not enough to remember the awakening. "Waking up is our safety net when we are asleep," said Dr. Christian Guilleminault, associate director of the Sleep Disorders Clinic and Research Center at Stanford University School of Medicine. "Whenever anything goes wrong during sleep, we wake up."

(over)

Sleep disorders -- add one

These awakenings may occur hundreds of times during the night without the patient being aware that anything is wrong during sleep. But the lack of sleep at night causes the patient to fall asleep at inopportune times and even at dangerous times during the day--during a conversation or while driving a car. A Dallas electrician who frequently falls asleep on his ladder has adapted by training himself not to fall off while asleep.

When sleep apnea is diagnosed, the first therapy is a weight loss program. Occasionally this will correct the problem. But often surgery is required. The usual procedure is a tracheostomy--creating an opening in the windpipe through the neck. The patient can close a valve during the day and open it at night so that breathing is not interrupted.

A new surgical "throat lift" has been tried with some success in patients with obstructive sleep apnea, the most common kind.

Narcolepsy is a disease of the rapid-eye movement (REM) sleep stage. The disorder is characterized by excessive daytime sleepiness (hypersomnia) and by cataplexy, sudden paralysis of the muscles that occurs with strong emotion. "Narcolepsy is absolutely not psychological or epileptic," says Dement. His group at Stanford has bred a colony of narcoleptic dogs.

The cataplexy usually develops gradually although it can start suddenly. Dement reported that puppies from the same litter with the recessive gene for narcolepsy can develop cataplexy on the same day.

One patient who experienced cataplexy in the grocery store received CPR from a bystander. When she suddenly recovered and stood up, the man was angry at being "fooled." Patients are often embarrassed by cataplectic episodes while playing sports or laughing at a joke. Any strong emotion can bring on an attack.

If cataplexy is difficult to detect in a patient, narcolepsy can be diagnosed by sleep recordings of the EEG (electroencephalogram), movements of the eye muscles, middle ear muscle activity (MEMA) and general muscle tone.

During REM sleep, the brain is quite active while the muscles are "paralyzed"--with the exception of the eye muscles and the diaphragm. A narcoleptic patient usually falls immediately into the REM state while a normal person experiences an hour to an hour and a half of non-REM sleep first. Non-REM sleep is characterized by "an idling brain and a moveable body," said Dement.

An episode of cataplexy is actually an episode of sudden REM sleep.

Narcolepsy is treated with medication: tricyclic anti-depressants for cataplexy and stimulants for the sleepiness. "Always use the lowest dose that helps," cautions Dement, "because there are no remissions and narcolepsy lasts a life-time."

Insomnia, defined as "disorders of initiating and maintaining sleep," affects about one-third of the adult population. And according to the sleep experts, sleeping pills are not the answer.

Generally they prescribe sleeping pills only when the patient is experiencing a temporary stressful situation, such as death of a spouse or job loss, that is causing the inability to sleep, said Roffwarg.

Since "insomnia" is used generally to mean a "loss of sleep," there are different medical types of insomnia. Early morning awakenings may indicate a psychological condition of depression. When the depression is treated, the sleep problem goes away.

Insomnia can be caused by a dependence on or a withdrawal from sleeping pills, or it can be related to other medications.

Some people complain of insomnia when there is no objective finding that they suffer from a loss of sleep. Some people are "short sleepers"--they may do very well on three or four hours a night even though the average person needs about eight.

One measure of whether loss of sleep is a problem is the ability to function well during the day.

Some people who think they suffer from insomnia may be suffering instead from "advanced or delayed sleep phase syndrome." They may just be out of "sync" with society because of disruption of internal body rhythms. If they go to bed at 11 p.m. and toss and turn till 4 a.m., then have to get up at 6 a.m., their daytime functioning is impaired.

(more)

Sleep disorders -- add two

These patients can be treated by resetting their biological clocks so that they sleep when they need to. Some people with this syndrome simply take jobs that coincide with their individual rhythms. One baker who had adapted in this way was treated at Stanford, but one of the researchers vowed not "to cure all the bakers in the world."

The "clock resetting" for the delayed phase involves going to bed two to three hours later each night until the desired bed-time is reached. This is almost always carried out in a sleep center because a patient usually needs the support and encouragement of the staff to follow through successfully, says Dr. Elliot Weitzman, director of the Sleep/Wake Disorders Center at Montefiore Hospital and Medical Center in New York City.

Sleep schedule disturbances are also experienced by travelers with "jet lag" and by workers who change shifts. "Jet lag" is usually over-come within a day or two, but it may take a shift worker two weeks or more to adjust to the new schedule. This is an industrial problem that probably needs more study.

Parasomnia refers to an event that takes place during non-REM sleep such as bed-wetting, night terrors or sleepwalking. These occur most often in children.

With bed-wetting (enuresis), a child needs a urologic evaluation. If there is no physical problem, the most effective approach is behavioral--the "pad and bell," says Dr. William C. Orr, director of the Sleep Disorders Center, Presbyterian Hospital of Oklahoma City. The goal of the pad and bell treatment is to train the child to wake up before urinating. The child, who must be motivated to use the method, sleeps on a pad consisting of two sheets of aluminum with a sheet of water-absorbent paper in-between. If the paper becomes wet, a circuit is closed, setting off an alarm that wakes the child up. The child begins to wake up earlier and earlier until he or she is able to wake up when feeling the urge to urinate.

Night terrors are quite different from nightmares, says Orr. Night terrors usually occur within one or two hours after sleep onset. The patient, usually a child, screams and thrashes around and cannot be awakened. Afterwards he or she recalls nothing of the event. These episodes are most frightening for the parents who try without success to awaken and comfort the child.

According to Orr, children usually outgrow night terrors, and the only thing that can be done by the physician is to educate and support the parents. Valium may be prescribed for the child in extreme cases.

Sleepwalking occurs in about 15 percent of normal children. It can be triggered in two- to four-year-olds just by standing them up when they're asleep. In an adult, sleepwalking can indicate physical or psychological problems and should be investigated. Often an understanding of what is happening can diminish the anxiety of the patient and, therefore, the likelihood of recurrence.

The main concern with sleepwalkers should be their physical safety. Contrary to popular myth, they have very poor muscle coordination.

Sleep studies can be used in diagnosing other types of illness.

Polysomnographic recordings of an impotent male can aid the physician in determining whether the impotence is caused physically or psychologically or by a combination of factors. Knowing the cause or causes will result in a more suitable therapy for the individual patient.

Sleep studies of depressed patients can also show which patients have depression of biological origin and can be treated most effectively with medication.

The new Sleep/Wake Disorders Center, occupying 3,700 square feet, includes four bedrooms for patients, a large central control room where technicians can monitor sleep recordings on patients in every bedroom, a waiting and recreational area, kitchen and bath facilities for patients undergoing 24-hour tests and plenty of storage space for the reams of sleep recordings that will be generated. The latest in polygraphic equipment will be used to record many different characteristics of the patients' sleep patterns--EEG, EKG, eye movement, muscle tension, oxygen saturation of the blood, middle ear muscle activity and others.

Most patients will be referred by their physicians for diagnosis and treatment although walk-in patients will have the center's services available also.

#

DISTRIBUTION: AA,AB,AC,AF,AG,AH,AI,AK,SC,SL

TEAR SHEETS APPRECIATED