Peter Tripp’s life was ruined. It had to do with sleep, or the lack thereof.

In 1959, Tripp was a disc jockey for WMGM in New York City, a popular top-40 radio station in the media capital of the world. His life would soon spiral out of control. That year, Tripp locked himself inside a glass booth in Times Square and started a “Wakeathon,” in which he would stay awake for 201 hours straight to raise money for March of Dimes. Tripp was monitored by doctors and given Ritalin in order to stay awake.

Several days in, he started suffering hallucinations and psychosis. He “saw” spiders in his shoes, and mice and kittens. The doctors studying his brainwave activity realized that even though he was “awake,” his brain activity resembled that of someone who was asleep. The spiders, kittens and mice were waking dreams.

Tripp finished the “Wakeathon.” He slept 24 hours straight afterwards. He was never the same. Coworkers claim his demeanor changed. His first wife left him. He’d lose his job in the payola scandal. Another three marriages would end in divorce.

Sleep is important.

The Waking Exile

How much sleep does an adult need? How much for a teenager?

According to the National Sleep Foundation, adults need seven to nine hours. Teenagers need eight-and-a-half to nine-and-a-quarter hours. Your five-year-old child needs at least 11 hours or more. If polls and surveys are any indication, no one’s really getting enough shut-eye. Per a recent study, 31 percent of teenagers said they get eight hours of sleep (which is still not enough). In another poll, 35 percent of adults got less than seven hours of sleep. Thirty-seven percent unintentionally fell asleep within the previous month and 4.7 percent nod off or fell asleep while driving.

Sleep deprivation was noted as significant factors in the Exxon-Valdez oil spill, the Challenger shuttle explosion, Chernobyl and the Three Mile Island nuclear meltdowns.

Luckily, our daily lives do not include nuclear reactors, space exploration or steering oil tankers. Still, the lack of sleep can be an indicator of other health problems, a general lack of performance at work or school, or simply drag us down and make us ugly.
Tomorrow will come. They'll go back to their chore. They'll start on the road, Zizzer-Zoofing once more. Tonight they've forgotten their feet are so sore. And that's what the wonderful night time is for.

- Sleep Book
Dr. Seuss
It is estimated, according to Amber Allen, Director of the Polysomnographic Technology Program at Collin College, which is expected to start in the fall of 2012, that there are more than 70 identified sleep disorders and more than 60 million Americans have at least one.

The science of sleep is relatively new, the “adolescent of the medicine world,” according to Allen. Studies in the 1950s and 1960s paved the way for polysomnography in the 1970s. Only now are general practitioners and other medical doctors realizing the importance of sleep in battling well-documented epidemics like heart disease.

Multiple cups of coffee can’t keep this test subject awake during class if he didn’t get enough sleep during the night.
Sleep disorders come in all shapes and sizes. The most prevalent are sleep apnea and insomnia. Sleep apnea is pauses or instances of low or no breathing during sleep caused by a physical block of airflow. It can be genetic, the result of obesity, or the patient could have enlarged tonsils or adenoids. Insomnia, Allen said, can be the result of faulty “internal wiring” or behavioral issues, like some kind of stimuli (TV, worries) keeping them awake.

Sleep disorders also border on the bizarre. There is narcolepsy (the urge to sleep at inappropriate times … which sounds like most people at about 2 p.m.), sleep walking and restless leg syndrome. Another disorder includes the patient getting up from bed, going into the kitchen and cooking an entire meal with no clue as to what they’re doing. Tragically, another disorder, fatal familial insomnia, is a genetic malady where patients cannot fall asleep, and they stay awake until their internal organs shut down and they die.

Allen explains doing a sleep study on a little boy: “He would open his eyes. His brain waves would show he was completely asleep. But he would stare at you and you could tell he wasn’t with it.”

Yes, sleep disorders can get bizarre and probably border on the peculiarities of an episode of House. Yet, a majority of sleep disorders deal simply with sleep apnea, a symptom of which is plain old snoring. What was once dealt with by a swift jab in the ribs of the offending party is now considered a serious malady. “Many patients come in because they’ve been exiled from the bedroom by spouses,” said Dr. David Ostransky, Director of the North Texas Lung and Sleep Clinic. “Some people do not have a good idea of what impact sleep apnea has on their lives. A majority of people realize that not sleeping well has a significant impact on daytime functions. But due to increased media attention, many are realizing that there are cardiovascular and metabolic consequences like diabetes. The public awareness has significantly increased the last 20 or 30 years.”

Beauty Sleep

There is something to be said for a good night’s sleep.

Professionals can perform a sleep study; hook you up to brain and heart monitors, observe and report a typical night’s sleep to
Physicians, and diagnose you with a sleep disorder. The polysomnographic technology program at Collin College will train professionals to run sleep studies and provide feedback to doctors.

Sleep apnea has a correlation to heart disease, obesity, diabetes and more. Those maladies can be addressed through medication, exercise and healthy eating choices. Dr. Ostransky also said that sleep disorders can also unmask issues with depression. The question here is: What good does sleep do?

“Poor sleep can affect things like a lack of focus, concentration or making mistakes at work that a person might not normally do,” Dr. Ostransky said. “A lot of people with a significant sleep disorder can just go to work and not get much else done. Some of the things you might want to do on weekends you don’t do because you try to catch up on sleep.”

Allen said that the first hypothesis about sleep was that nothing was going on in a human’s body. That all functions ceased and your body was in complete repose. With the research that took place in the 1950s and 1960s, that theory was debunked. In fact, the brain and body is very active during sleep and a lack thereof could affect the way you look, what you remember or how much you weigh.

“In REM sleep, that’s where your brain processes memories and new information,” Allen said. “If you are not having enough of that stage of sleep, it can negatively affect memory. Research has shown that adults who consistently get less than seven hours of sleep have a decrease in cognitive brain function that is like aging the brain three to seven years.”

Also, Allen said that the body regulates blood sugar and calories during sleep, and the body makes new cells. Essentially, not getting the right amount of sleep creates an imbalance in things like the body’s production of the hormones leptin, which tells you when you are full, and cortisol, which affects abdominal fat.

If your kids whine about having to go to bed early, tell them that it has been discovered that growth hormones are produced during sleep. Getting a solid nine hours of shut-eye could make the bones grow just as well as a glass of milk. Sleep affects your heart, your brain, your bones and your
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pant size. It also determines how you look. “Sleep affects the physical appearance, too,” Allen said. “Beauty sleep is, in a sense, keeping you from looking older.”

Not Getting Enough

There is a two-fold problem with sleep in today’s United States: Those dealing with real disorders, who should get a sleep study in order to not only address their nocturnal issues, but possibly reveal other health problems, and those that don’t simply get enough sleep.

If a sleep study addresses a disorder, how do people combat not getting enough? “Take the TV away, and it is amazing how fast people go to sleep,” Allen, a former polysomnographic technologist with The Cleveland Clinic, said. “I have had kids come in and the parents say the child has an insomnia problem, but at home the child is staying up watching TV as a means of falling asleep. When the child comes in for a sleep study, I take away the TV, and he or she quickly goes to sleep.”

Recently, researchers began monitoring teenagers and found that many text while they sleep (probably to no surprise to many parents). This, however, is not just for teenagers. Allen suggests putting the cell phone elsewhere in the house. Every time it beeps with a text or rings with a call, it disrupts the sleep pattern.

“People have so much external stimuli. How many people bring laptops to bed? The bed is for sleeping and sex. Those are the two things it should be used for. All other things should not happen when you are in bed. The bed is not an office. That’s a cardinal rule for the sleep world,” Allen said. She also suggested not laying in bed waiting for sleep. If you can’t fall asleep within 20 minutes, get up and do something that will relax you. Drink a glass of warm milk or take a bath before bed. Avoid caffeine after 2 p.m. and strenuous exercise after 6 p.m.

“It’s so easy to skimp on sleep,” Allen said. “But sleep is one of the most vital things that you need to function.”

Visit collin.edu/sleep for more information about the Polysomnographic Technology program at Collin College.

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