OREGON SLEEP ASSOCIATES

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BETTER SLEEP BETTER HEALTH

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IS PAIN KEEPING YOU UP AT NIGHT?

NEW RESEARCH SHOWS DANGERS OF A COMMON PAIN TREATMENT

You've been awake for hours, lying in agony. The pain never seems to stop anymore. To dull it slightly, you take another pill. The medication provides a brief respite and you drift off into a fitful sleep. Unfortunately, when it comes to the quality of your sleep, that painkiller may actually cause more harm than help.

Pain medications have effects on your sleep.

Opioid pain medications are among the most commonly prescribed pharmaceuticals in the US. Originally used mostly by cancer patients, they are now prescribed to treat a myriad of ailments including back pain, chronic pain or Fibromyalgia, and surgical pain. While narcotics like Vicodin, Percocet, and Oxycontin help to mask the symptoms of these problems, they also have serious side effects. Besides carrying a high risk for dependence, these medications also can cause convulsions, slow heart rate, and nausea. One other side effect, suppression of respiratory effort, is now being studied by doctors because of the way it affects sleep.

As reported by the American Academy of Pain Medicine, researchers recently conducted a study to determine what effects narcotics have on a patient's sleep. After examining 140 subjects on round-the-clock opioid treatment for chronic pain, the researchers were startled by the results. *"We found that sleep-disordered breathing was common when chronic pain patients took prescribed opioids,"* says lead author Lynn R. Webster, MD. In fact, the prevalence of Sleep Disordered breathing was 75% among the patients. This is far higher than the rate among the general population, which is generally quoted as between 5 to 25%.

The sedative effects of narcotics on the nervous system and muscles can be quite powerful and lead to worsening of Obstructive Sleep Apnea. As muscles and tissue relax, the airway collapses during sleep, leading to obstructions in breathing called Apneas. These apneas can disrupt sleep and lower oxygen levels. OSA contributes to a higher risk of cardiovascular problems and stroke risk, as well as many other health problems. However, Obstructive Apnea is not the only thing worsened by opioids.

Perhaps more insidious, and just as dangerous, is Central Sleep Apnea. CSA occurs when the part of the brain that regulates breathing during sleep does nor function correctly. As opposed to Obstructive Apneas, Central Apneas are not characterized by a struggle to open the airway. There is no loud snoring or gasping involved. Instead the patient simply stops breathing until their oxygen level drops too low and incites a response. The researchers found a direct relationship between the dosage levels of narcotics and CSA.

Patients that require pain management should work closely with their doctor to monitor opioid use. They should be especially aware of the breathing risks associated and seek counsel from a sleep specialist if sleep problems are suspected.

INSIDE THIS ISSUE:

THINGS TO CONSIDER:

- ***Disrupted sleep can make it harder for your body to heal from injuries, leading to more need for pain medications.***
  Break the cycle by addressing sleep issues as part of pain management.

AMERICANS SPEND MORE TIME WATCHING TV THAN SLEEPING

Each day we willingly let a dangerous intruder into our homes. This thief distracts us from our families, influences our children, and steals something precious every night. The outlaw is television and a new report details just how much of our lives we give away to the glowing box.

The Nielson Company, which tallies ratings and television viewership across the country, recently revealed that American households spent on average 8 hours and 18 minutes *per day* watching television during the 2007-08 television season. This is a record high since the company began measuring TV watching in the 1950s.

This is significant because, according to the National Sleep Foundation's *2008 Sleep In America Poll*, Americans average only 6 hours and 40 minutes sleeping per day. *(NSF 2008)* Watching TV does not have positive effects on a person's health. Though some people treat it as one, it is not a necessity for humans. Sleep is a necessity and is being disregarded in favor of electronic distraction. For the sake of your health and well being, turn the TV off and go to bed.

For more information on media affecting sleep and proper Sleep Hygiene, visit the National Sleep Foundation at www.sleepfoundation.org

Americans are sacrificing sleep to watch television.

> ***"Sleeping is no mean art; for it's sake one must stay awake all day."***
>
> ***- Friedrich Nietzsche***

CAN'T SHUT OFF YOUR BRAIN AT NIGHT? IT MAY BE A CHEMICAL IMBALANCE

You come home from work, enjoy dinner with the family, relax for a while, and settle into bed to fall asleep. But then something happens. You can't stop thinking about your job, your grocery list, your home repairs, etc. Your mind is still racing and you just can't relax enough to fall asleep. Pretty soon you realize it's 3 am and you have to be up in a few hours. Just another sleepless night...

This scenario is all too familiar for many people. Insomnia, the inability to fall asleep or maintain sleep, is one of the most common sleep disorders. As outlined in Volume 2, Issue 1 of OSA's *Better Sleep, Better Health* newsletter, there are many causes of Insomnia including situational stresses, shift work, and Obstructive Sleep Apnea. But what if you have seen a sleep doctor and determined you have none of these? You just feel you cannot turn off your brain.

It turns out there may actually be a previously unknown physical reason for this problem. New research published in the November issue of SLEEP suggests people may suffer from Primary Insomnia because of a lack of chemical transmitter in their brains. Gamma-aminobutyric acid, or GABA, is a common inhibitory transmitter which decreases or stops transmission of nerve impulses. The study found people with Primary Insomnia have on average 30% less GABA in their brains than those without Insomnia.

"GABA is reduced in the brains of individuals with insomnia, suggesting over-activity is present," explains principal investigator Dr. John Winkelman in an interview on sleepeducation.com. Low GABA levels create an imbalance of brain activity. This *"may lead to an inability to shut down waking signals in the brain,"* he said.

Insomnia can seriously affect a person's life and should be dealt with early on. Treatments can include short term use of hypnotic medications and cognitive behavioral therapy. For more information on sleep and Insomnia, check out www.oregonsleepassociates.com.

If your mind is constantly racing at night, a lack of a neurotransmitter may be to blame.

KIDS AND SLEEP: SHORT SLEEP MAKES OBESITY FAR MORE LIKELY BY AGE 6

The epidemic of childhood obesity is sweeping across the nation. More children are overweight now than at any moment in our history. The significance of this sets in as the rates of diabetes and developmental problems rise with the increase in weight. Obesity derives from causes such as high fat diets, sedentary lifestyles, and negative effects of media intrusion in our lives. But scientists are now pointing to another contributing factor: *Lack of sleep*.

A lack of sleep can lead to childhood obesity by age 6.

The average child needs at least nine to eleven hours of sleep in early childhood. According to a new study performed by Canadian researchers and reported in the journal SLEEP, *"the risk for obesity was almost 4.2 times higher for short persistent sleepers than for 11-hour persistent sleepers." (SLEEP, Nov. 2008)*

The study followed 1138 children from age 2.5 to 6 years and defined *"short persistent sleepers"* as those children who regularly slept less then 10 hours per night before age 6.

While this is not the only reason for childhood obesity, it does demonstrate the importance of children receiving the correct amount of sleep. In essence, kids who sleep longer live healthier lives. With 60-85% of overweight children remaining obese into adulthood, it is especially important for parents to instill good habits and patterns early in their children's lives.

The risk for childhood obesity is 4.2 times higher for children who sleep less than 10 hours per night.

For more information about kids and sleep, or if you have questions about your own children's sleep, please contact Oregon Sleep Associates at 503-288-5201.

WINTER BLUES: SEASONAL AFFECTIVE DISORDER

Every year winter rolls in bringing with it rain, snow, and ice. But with the change in season also comes a shift in the moods of many people. The long hours of darkness bring melancholy and depression. It becomes hard to get out of bed each morning and normally simple tasks may seem insurmountable. The name for this condition is Seasonal Affective Disorder, also known by its appropriate acronym, SAD.

SAD affect millions during the winter months. Researchers are still uncertain what the exact cause of this mass depression is, but it is most likely related to levels of Serotonin in the body. Serotonin is a neurotransmitter that helps regulate the sleep/wake cycle. This cycle uses cues from nature to set the body's "internal clock". The most important cue is natural light. Humans need to be exposed to light from the sun for our bodies to function correctly. Unfortunately many people, especially in a northern climate, rarely see the sun during winter. Often they wake and travel to work before it rises and return home after it has set. The results are jet-lag like symptoms. People may have trouble sleeping or may feel exhausted all the time. They may experience depression or hopelessness and may feel isolated from other people. Living like this for many months may feel like torture, but there are ways of dealing with SAD. Researchers recommend trying to expose oneself to natural light for at least fifteen to twenty minutes a day, even if it is just sitting by a window. Light box therapy may also be beneficial for some people. Light boxes are specially made to expose the patient to very intense light at specific wavelengths. Used for certain periods throughout the day, these help correct sleep rhythm disorders and can work on SAD. However their use should be prescribed and monitored by a sleep specialist. To find out more information about SAD and to find a sleep physician visit www.sleepeducation.com.

Cold weather and a lack of natural light may bring about depression.

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BETTER SLEEP FOR BETTER HEALTH...

SPOTLIGHT ON OREGON SLEEP ASSOCIATES: BRIAN NAGLE

The newest member of the OSA team, Brian Nagle joined the sleep center in November 2007 after completing a Neurobiology degree at the University of Wisconsin. He got interested in sleep medicine because it's related closely with his major. Brian would like to someday be a doctor and is currently applying to medical schools. *"I'd like to continue to study Neurology,"* he says, *"but over the course of med school something else may grab my interest."*

OSA Sleep Technician Brian Nagle

He explains that he enjoys working with patients because the variety of cultures and backgrounds is so rich. *"Everyone has a unique story, and it's really interesting to hear them each night."*

In his free time, Brian is an avid swimmer, reader, and also volunteers at Doernbecher Children's Hospital Safety Center. There he helps educate new parents about ways of protecting kids from injuries.