**SMC News**

Sleep Medicine Centers News ........................................ 1

**Special!** Sleep after Head Injury ....................................... 2

**Sleep Guides:** Healthier Sleep ........................................ 2

Discriminating Sleep: Unhealthy vs. Unhealthy Sleep .................. 3

Investigating... Illnesses that Impair Sleep .............................. 4

Ask the Doc... Cancer & Sleep ........................................... 4

A Look Inside... Dementia Disorders & Sleep............................ 5

Symptoms & Signs... Do I Have a Health-Related Sleep Problem? 5

Patient and Public Resources... Additional Information............... 6

Research & Education... Patient Research, CMEs ...................... 6

Events... Public and Professional Events................................. 7

Sleep Facts... Illness and Sleep Statistics ............................... 7

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**SMC Doctors Publish Presentation.**

Dr. Daniel Rifkin and Marc Schlegal, RPA-C, of Sleep Medicine Centers of WNY, teamed with Bijal K. Mehta and Nicholas Saikiali to develop a presentation about certain menstrual issues and sleep apnea. Their presentation was published in the journal, Sleep Medicine. Visit sleepmedicineeducation.com to view their presentation.

**Research.** Do you have RBD or sleepiness following a head injury? Two new research opportunities are now available. Patients and the general public are invited to contact Sleep Medicine Centers of WNY to see if they qualify for a study. See page six for a list of current opportunities.

**Sleep Education Web Site.** Visit the Sleep Medicine Education web site at: sleepmedicineeducation.com

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**About**

*SleepIssues* is a quarterly sleep disorders publication for patients, professionals, and the general public.

**Editor:** Mary Ouimette-Kinney. Unless otherwise specified, all articles and images were written or created by the editor exclusively for Sleep Medicine Centers. No part of this publication may be reproduced without express permission from the editor.

See page seven for subscription information.

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www.sleepmedicinecenters.com  (716)92-DREAM
No matter which part of the brain receives a traumatic injury, sleep problems often develop. This may be true even for a mild injury. Sometimes, sleep disturbances continue after the underlying injury has apparently healed.

Sleep involves several areas of the brain. The type and extent of a problem depends on which part of the brain was injured and of course, the severity of the injury. Some common sleep disorders include:

**Hypersomnia:** extreme drowsiness, both day and night. This symptom is typical immediately following head trauma. For some patients, tiredness may be experienced in the form of *Narcolepsy* (uncontrollable sleep attacks with a loss of muscle tone called *Cataplexy*). The extra sleep may be needed at first while the brain heals itself.

**Insomnia:** the inability to fall or stay asleep; or sleep that fails to restore the body to wakefulness as well as it did prior to the injury.

**Circadian Disturbance:** altered sleep patterns, including *Delayed Sleep Phase Syndrome*, which delays the entire sleep-wake cycle by at least two hours. Some patients cannot maintain any regular sleep pattern.

**Central Sleep Apnea:** brief pauses in breathing during sleep that arise when the injured brain “forgets” to breathe.

Other sleep disorders may also develop. Additionally, medications taken after a brain injury may cause drowsiness or disrupt nighttime sleep.

**The Effect:** Sleep disorders can worsen other problems related to a brain injury such as cognitive (thinking) difficulties, depression, and behavioral changes. As a result, brain injuries commonly impact job or school performance. Relationships with family and friends may also decline.

The Solution: While not a cure, managing sleep is integral to recovery. Evaluation of sleep problems following a brain injury should include a medication review, prior history of sleep problems, and consideration of any new complications.

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Even severe illness or injury can benefit from healthy sleep habits. If your condition disrupts your ability to sleep well at night or stay awake during the day, a few simple additions to your lifestyle may help:

**Investigate**

**Assess.** Keep a sleep journal for two weeks. Pay particular attention to how your sleep habits have changed since the onset of your condition. Has an existing sleep problem become worse? Do you sleep too little or too much? Did the timing of sleep change to an earlier or later time?

**Evaluate.** If sleep problems persist, share your assessment with a health care professional. Are you expected to sleep more? Has your convalescence precipitated depression, which commonly disrupts sleep? Find out whether sleep disorders are a consequence of your illness or it’s treatment.

**Incorporate**

**Treat.** Be diligent about treating your underlying illness. Consult a pain management specialist, if discomfort keeps you awake. Change medications, if possible.

**Maintain**

**Regulate.** Avoid naps, unless they have been prescribed. Sleep all at once, at your desired sleep time, every night. If bedridden, set an alarm to awaken at the same time every day. Be consistent over time.

**Lighten Up!** Expose yourself to bright light as soon as you start the day. Can you spend time outdoors or near a window? If not, consider exposing yourself to a full spectrum lamp or bright light set to 10,000 lux for 30-90 minutes early in the day.

**Refrain.** Avoiding alcohol, caffeine, and nicotine is especially important in the context of illness. Any recreational drug can make your symptoms worse, or interfere with medication.

**Participate.** Engage in activities that will not interfere with your recovery!
You used to sleep better. Then again, you also felt better. Perhaps it is just coincidence, age, or life changes. Do your sleep problems have anything to do with your health problems?

Pain. Immobility. Medication side effects. Lifestyle change. No wonder the balance between sleep and wakefulness become tangled during convalescence. Whether sleep problems can be attributed to illness or injury depends on several factors.

If your condition commonly alters sleep in some manner, you may have difficulty no matter how well sleep normally rejuvenates you. How often do we feel the need to sleep all day while recovering from a bad cold or virus? Daytime tiredness and nighttime sleep disruption are even more likely to develop following surgery or while battling serious illnesses such as cancer or arthritis.

The likelihood and degree of developing a sleep disorder also increases during convalescence. Some conditions, such as Alzheimer’s Disease or a Traumatic Brain Injury precipitate sleep disorders. These secondary sleep disorders must be treated in their own right.

In the absence of an underlying sleep disorder, sleep issues tend to parallel an associated health condition. We experience the most daytime tiredness, nighttime disruption, and altered timing of sleep when our pain, discomfort and other symptoms are most prominent. Symptoms then gradually disappear during recovery. A sleep disorder, on the other hand, will take on a life of its own.

A change in medications and effective pain management (which may or may not involve medication) may improve sleep, if not expedite recovery, depending on the nature of your condition. A significant change in sleep habits should be reported to your health provider.

Keep in mind that increased rest is integral to recovering from many illnesses, and depriving yourself of it can impede that process. Do not underestimate the healing power of good sleep and wakefulness!

Sleep disorders are common. Neither age nor good health guarantees immunity. Nor does illness or injury always account for their onset.

Consider the relationship between your health and sleep. Is a change in sleep habits normal for your condition? If so, for how long? An underlying sleep disorder will not resolve itself as your health improves. For this reason, it needs to be identified in addition to your other issues.

The discovery of a sleep disorder may just coincide with a decline in your health. More often, sleep problems that are not symptomatic of a health problem were still influenced by it. Illness provided the context to express a problem you were predisposed to developing anyway. For example, a person with a family history of insomnia but who has never experienced it may first develop difficulty sleeping during a period of convalescence.

Pain, the use of certain medications, and immobility commonly disrupt sleep—while such symptoms last. However, insomnia or other sleep symptoms that persist past recovery may indicate a sleep disorder, which usually needs to be treated separately.

Chronic illness presents more of a challenge. Ask your doctor the extent that sleep is expected to change and how you can minimize the effects of it.

Even in the context of chronic or severe health problems, an underlying sleep disorder can be treated. Doing so will certainly compliment your overall health care.
INVESTIGATING... Illnesses that Impair Sleep

Any illness capable of producing pain or immobility can alter sleep. Some conditions have a tendency to precipitate sleep problems.

Neurologic (Brain) Disorders:
Alzheimer’s Disease: a fatal degenerative brain disease that reverses the sleep-wake cycle. Obstructive Sleep Apnea (OSA) and Restless Legs Syndrome (RLS) also develop, in some patients.

Parkinson’s Disease: a chronic movement disorder that impairs the ability to fall or stay asleep (insomnia). It is also associated with Restless Legs Syndrome (RLS) and Nightmares.

Epileptic Disorders: any number of conditions characterized by surges of electrical activity in the brain, which may disrupt sleep in those with Sleep-Related Epilepsy. As well, sleep deprivation precipitates other types of seizures.

Neuromuscular Diseases: diseases such as Multiple Sclerosis that affect muscles and their nervous control. They have been associated with Sleep Apnea, RLS, and daytime sleepiness.

Fatal Familial Insomnia: an extremely rare genetic Prion Disease (mutated proteins in the brain) that perpetuates insomnia until death occurs.

Other Conditions:
Cancer: a disease of potentially malignant growths, which produce symptoms of insomnia, especially in Lung and Breast Cancer. Certain types of chemotherapy, as well as some cancers, are associated with daytime sleepiness. As well, poor sleep undermines the ability to fight cancer.

Arthritis/Rheumatic Diseases: rheumatic diseases that cause joint swelling or damage. They precipitate enough pain and discomfort to make sleep difficult. A lack of energy and fatigue also accompany arthritis.

Allergies: Hay Fever, Hives and other sensitivities which interrupt nighttime sleep, precipitate insomnia, and may cause sleep-disordered breathing, if the respiratory tract is irritated. Medications used to treat allergies sometimes cause daytime drowsiness.

Chronic Obstructive Pulmonary Disease (COPD): chronic bronchitis and emphysema, often seen in smokers. It has been associated with difficulty falling or staying asleep, either because of breathing difficulty associated with the disease, or the medications used to treat it.

Gastro Esophageal Reflux Disease: food and digestive chemicals shifting back into the esophagus, which causes enough discomfort to disturb sleep. GERD has also been associated with Sleep Apnea.

Pneumonia/Bronchitis: inflammation or infection of the lungs or upper airway, either due to a virus or bacteria. Difficulty sleeping and sleep disordered breathing commonly plague those with pneumonia.

In Addition:
Substance Addiction/Abuse: depending on the type of recreational, prescription or OTC drug, abuse may result in insomnia, hypersomnia, or altered sleep patterns. Alcohol and caffeine taken excessively or at the wrong time also impair nighttime sleep.

Visit sleepmedicineeducation.com for additional information about medical conditions that impact sleep.

ASK THE DOC

At the SleepIssues podium:
Frank Arnal, M.D.
ABIM Board-Certified in Pulmonary and Sleep Medicine,
Dr. Frank Arnal discusses Cancer and Sleep.

Q. Which sleep disorders am I most likely to develop with cancer?
A. Insomnias and Circadian Rhythm Disorders are most common, especially if you have breast or lung cancer.

Q. Why do they develop?
A. They may be caused by the cancer itself, chemotherapy, radiation therapy, pain, emotional stress, and being in the hospital. Patients most at risk for secondary sleep disorders include those experiencing anxiety, depression, fever, nausea, constipation, sweating, and loss of control over bodily functions.

Q. I am overwhelmed with so much change in my life since having cancer. How can I hope to sleep?
A. Treating pain as well as the side effects of your cancer treatment will increase the likelihood of better sleep. Nighttime pain and discomfort does not have to be an expected part of your recovery effort. Do not be afraid to make use of the pain management services offered by your cancer team.

If you awaken throughout the night feeling stressed, consider behavioral therapy to help you relax.

Q. I do not wish to burden my family by asking too much of them. Is there any danger in fighting the need for extra sleep?
A. Yes. How well you sleep will help to determine how well you fight cancer. Getting all of the sleep you need will allow your immune system to balance hormones such as cortisol and melatonin, which regulate immune system activity. Sleep rejuvenates the body and mind.
Dementia involves the loss of previously acquired mental function. Alzheimer’s Disease and other dementia disorders incrementally destroy the ability to think, communicate, care for oneself, and even sleep appropriately. Sleep disturbance places as much of a demand on both patients and caregivers as other symptoms, and this demand grows as the disease progresses.

Any number of sleep problems are common.

Altered Circadian Rhythms: a reversal in the timing of sleep. Increased agitation and restlessness pairs with a decreased need for sleep during the nighttime hours. Consequently, daytime sleepiness follows.

Sundowning: an expression of circadian disturbance seen in Alzheimer’s Disease. It is characterized by increasing confusion, agitation, and repetition of simple movements, specifically during the evening hours. Tasks that were easier to perform earlier in the day become impossible. Sundowning begins late in the afternoon and worsens throughout the evening. Permanent damage to the internal clock (called the suprachiasmatic nucleus) and other areas of the brain involved with regulating sleep and wakefulness may be responsible for altered circadian rhythms.

Obstructive Sleep Apnea: sleep-disordered breathing is relatively common among those with Alzheimer’s Disease. Apnea-related arousals from sleep exacerbate nighttime disorientation, agitation, and restlessness. Therapy using a Continuous Positive Airway Pressure (CPAP) machine to ensure a continuous supply of oxygen has improved breathing during sleep for many patients.

REM Sleep Behavior Disorder: the enactment of violent dreams associated with RBD often begins years before dementia is diagnosed. For that matter, a diagnosis of this disorder is a risk factor for Alzheimer’s disease. RBD symptoms alone present a danger to both the sleeper and household members. In the context of sundowning and other dementia-related nighttime disturbance, untreated RBD can make a difficult situation impossible to manage.

Restless Legs Syndrome: the discomfort of RLS can further prevent nighttime sleep, which is already compromised.

Coping.

A loved one with dementia will eventually require full time care. Any deviation from the normal sleep/wake pattern should be brought to the attention of the dementia patient’s doctor. A primary goal of treating sleep problems is to limit the effects of the reversed circadian cycle, including the process of sundowning:

» Make health providers aware of sleep problems as they arise, then manage medications so they are taken at the same time each day.

» Consider Bright Light Therapy each morning using natural light or a specialized light box to promote wakefulness.

» Encourage physical activity early in the day while limiting the duration and number of daytime naps to promote sleep in the evening.

» Limit stimulation from the television, guests and other surroundings in the evening to minimize periods of restless agitation.

Caregiver’s Sleep Problems.

Even those who are retired or available around the clock cannot hope to stay awake every night to accommodate the sleep disturbances associated with dementia. Sleep disorders are a primary reason why Alzheimer’s patients are institutionalized. Without nighttime assistance, caregivers are at risk for severe sleep deprivation, which compromises their own health. Make sleep disorders treatment a priority.

Symptoms & Signs

Do I have a health-related sleep problem?

If you experience any of the following, you may have a health-related sleep problem:

» My sleep problems began following the onset of an illness or injury.

» My sleep problems began following a change in medication.

» My health problems have worsened since I began having sleep problems.

» Pain and discomfort keep me awake at night.

» My tiredness is accompanied by a lack of energy and feeling of malaise.

Untreated sleep problems may worsen an underlying illness or injury. If you think you may have a sleep disorder, contact your physician or Sleep Medicine Centers.
New! Feeling tired since your head injury? Sleep Medicine Centers is currently conducting a study to determine how well a medication works for daytime sleepiness as a result of head injury.

For detailed information about these studies or to see if you qualify for a study, call (716)250-5000 or visit: www.sleepmedicinecenters.com

New! For those diagnosed with RBD or who think they may have it, a research study is underway to investigate whether use of the drug Ramelteon (Rozerem) is effective for the signs and symptoms of RBD.

If eligible, all study-related medical care will be provided free of charge.

The Physician - Researchers associated with Sleep Medicine Centers of WNY and the Jacobs Neurological Institute periodically offer continuing medical education for credit through the Accreditation Council for Continuing Medical Education (ACCME).

Call any facility at: (716)92-DREAM (877)53-SNORE

Complimentary Educational Activities such as CMEs and talks are open to medical students and allied health care professionals.

Refer to the SMC web site for current research abstracts or education event postings: www.sleepmedicinecenters.com/ Home/ResearchOpportunities

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MARK YOUR CALENDAR

» Sleep Medicine Centers physicians make regular appearances on local broadcast news programs. Check TV listings for additional appearances.

» Need to schedule an appointment? Clinic services are available Monday-Friday, 9:00 a.m. to 4:00 p.m. Sleep studies may be scheduled any night of the week, except some holidays.

SLEEP FACTS

- The Alzheimer’s Society estimates the prevalence of Sundowning to be as high as 66% among individuals with Alzheimer’s Disease or other dementias.

- The National Cancer Institute reports that cancer patients are at great risk for developing insomnia and circadian sleep disorders.

- According to the National Sleep Foundation, 15% of the adult population surveyed reported experiencing chronic pain at night and 2/3 reported poor or unrefreshing sleep.

- According to a long-term study by the University of Bergen of more than 4000 children, those with chronic illness were significantly more likely to develop chronic sleep problems.

- The American Academy of Sleep Medicine reports a high prevalence of sleep disorders (46%) and of excessive sleepiness (25%) in patients with traumatic brain injury.

- According to a 2005 study published in Arthritis Rheumatology, insomnia symptoms affect a large portion (24.8%) of patients with arthritis.