

Sleep Disorders Can Be Costly for Employers

The rigors of the presidential campaign have heightened awareness about the impact of sleep loss on human performance as the candidates and their staff members slog from state to state.

Most adults feel the effects when they fail to sleep for an average of seven to eight hours per night. Prolonged loss of sleep can have serious health consequences.

About 40 million Americans are diagnosed with a chronic long-term sleep disorder each year. An estimated 20 million more have occasional sleep problems that affect their performance.

Meanwhile, the National Sleep Foundation says the majority of people with sleep disorders are undiagnosed and, therefore, untreated.



Many American workers have undiagnosed sleep disorders.

Workplace Impacts

Prolonged sleep loss has a major impact in the workplace because it poses an increased risk of medical problems such as obesity, ulcers, hypertension, heart disease, diabetes and other costly conditions.

Sleep loss also can have a profound effect on mood. Common signs of sleep deprivation include irritability, lack of motivation, anxiety, depression and difficulty concentrating. In addition, nearly 20 percent of injuries suffered in motor vehicle accidents are attributed to daytime drowsiness and other sleep-related issues.

One of the most crippling aspects of sleep loss is the effect it can have on an employee's ability to make sound decisions. Research shows that well-rested people learn to avoid high risks and choose what is most advantageous, while sleep-deprived people tend to continue making high-risk decisions.¹

One area of particular interest to employers and

the occupational health professionals with whom they consult is the occurrence of circadian rhythm sleep disorders (CRSDs) among shift workers. While the number of workers who meet criteria for the diagnosis of CRSDs remains unclear in the absence of extensive studies, the literature suggests at least 10 percent of shift workers are affected.²

Many people work shifts because of socioeconomic considerations. As a result, companies that operate around the clock are establishing policies to standardize the frequency, duration and type of shift work that is performed. These measures usually involve personal diagnostic surveys and interviews that are aimed at understanding employee's needs and concerns.

In an effort to improve diagnosis and treatment for shift workers and other sleep-deprived patients, the American Academy of Sleep Medicine (AASM) convened a task force to review the literature on CRSDs and identify knowledge gaps. The academy's Standards Practice Committee subsequently developed practice

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How Do Workers Use Their Time?

Information from the U.S. Bureau of Labor Statistics (BLS) provides insights on the status of Americans' work-life equilibrium:

- Men were more likely than women to participate in sports, exercise or recreation on any given day: 20 versus 15 percent. Men also spent more time in these activities than women.
- Employed persons worked an average of 7.6 hours on a typical workday; men worked about an hour more than women.
- 84 percent of all employees worked on an average weekday; 35 percent worked on a weekend day.
- 21 percent of employees did some or all of their work at home.
- On an average day, 84 percent of women and 64 percent of men spent some time doing indoor and outdoor household chores; 20 percent of men did housework (such as cleaning) compared to 52 percent of women; 37 percent of men did food preparation, compared to 65 percent of women.
- Watching TV accounted for about half of leisure time, on average, for both men and women.



Medical Marijuana May Be Firing Offense

A court has ruled that California employers may legally fire users of medical marijuana when such use violates a company's drug policy. (Refer to *Ross v. RaggingWire Telecommunications, Inc.*, Jan. 24, 2008, Cal. LEXIS 784.) The state's Compassionate Use Act allows the use of medically prescribed marijuana. However, the act does not cover the workplace; it only regulates criminal laws. The court found that California employees cannot state a claim for disability-based discrimination or wrongful termination if they are fired by a company that requires pre-placement drug tests and takes illegal drug use into consideration when making employment decisions.

Meanwhile, 24-hour medical marijuana vending machines are now available in Los Angeles. Access to the machines is controlled by security guards who verify that users have a medical marijuana prescription, are on the dispensary list and have a special pre-loaded debit card to operate the machines.

Health Benefits Under Scrutiny

A growing number of job candidates are entering the hiring process with serious health conditions. That means more job applicants need information about waiting periods and exclusions. With costs rising, some employers are adopting a controversial strategy that ends group health coverage and gives employees cash to help them buy their own insurance each month.

At companies with more than 200 employees, 73 percent of covered workers face a waiting period before coverage is available; 94 percent of employees in the retail industry have waits, according to a 2007 Kaiser Family Foundation survey of health plans. About 55 percent of workers with employer-based coverage have a lifetime limit, creating financial challenges for people with serious illnesses.

Meanwhile, studies show that even a modest co-payment discourages some employees from seeking preventive care that reduces the likelihood for developing chronic and/or costly conditions.

10 Steps for Worksite Wellness

David Hunnicut, PhD., president of the Wellness Council of America, has written a paper on 10 actions a small company can take to implement a worksite wellness program. They are:

1. Issue a letter of support from the CEO.
2. Designate a company wellness leader.
3. Conduct an employee health interest survey.
4. Provide an opportunity for health screening.
5. Administer an annual physical activity campaign.
6. Hold lunch-and-learn sessions.
7. Establish an in-house wellness library.
8. Disseminate a quarterly health newsletter.
9. Implement health-promoting policies.
10. Promote community health efforts.

Source: www.welcoa.org

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parameters for use by physicians. The CRSD practice parameters address shift work sleep disorder as well as jet lag, advanced sleep and delayed sleep disorders, free-running (a wake cycle that shifts later each day) and irregular sleep-wake rhythms.

Diagnosis and Treatment

According to sleep experts, patients should be diagnosed and treated using validated methods and criteria contained in ICSD-2 (International Classification of Sleep Disorders, 2nd Edition).³ The researchers said this approach should have a positive impact on professional behavior and patient outcomes, which in turn should reduce health care costs.

As part of the study, the task force evaluated the efficacy of diagnostic tools including polysomnography, actigraphy, sleep logs, the Morningness-Eveningness Questionnaire and biologic phase markers.

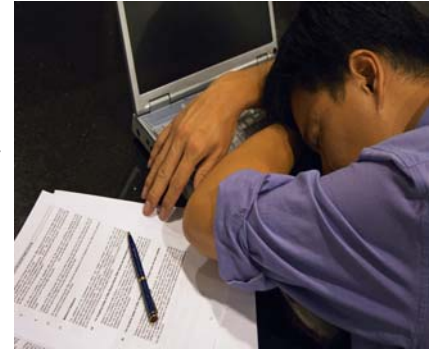
To find the appropriate treatment for shift work sleep disorder, other conditions must first be ruled out. They include sleep apnea, narcolepsy, sleep disruption associated with mood disorders, restless leg syndrome, primary hypersomnia, advanced or delayed sleep phase

syndrome or simply insufficient sleep. Physicians say sleep apnea is particularly important to identify given its association with hypertension and heart disease.

The task force also rated the effectiveness of various treatment modalities for CRSDs. Recommendations for the treatment of shift work sleep disorder include:

- Planned sleep schedules and timed light exposure.
- Timed melatonin administration.
- Use of hypnotic medications (e.g., triazolam, temazepam or zopiclone), as indicated. Carryover of sedation to the night shift and co-existing conditions such as breathing-related sleep disorders must be considered.
- Use of stimulants to enhance alertness. Studies using psychostimulants such as modafinil, caffeine and methamphetamine have demonstrated efficacy in countering sleepiness and improving psychomotor performance compared to a placebo. However, certain precautions apply to the use of these stimulants.

Ultimately, the effects of ongoing sleep loss are much stronger than stimulants and can make sleep impossible to resist, scientists say.



Tips for Easing Shift Work Sleep Effects

- Decrease the number of night shifts worked in a row to allow time for sleep recovery.
- Avoid extended work hours, including prolonged shifts and excessive overtime.
- Avoid long commutes.
- Avoid rotating shifts more than once a week.
- Get sufficient sleep on days off.
- Practice good sleep hygiene by planning and arranging a sleep schedule and avoiding caffeine, alcohol and nicotine.
- Avoid reliance on stimulants. At best, caffeine and “uppers” only temporarily fool the body into thinking it is functioning properly, which further complicates sleep disorders.
- Antidepressants are known to positively influence and sometimes re-adjust circadian rhythm.
- Treatment for insomnia or excessive daytime sleepiness can involve varying the levels of drug dosage and introducing stress-reduction therapy.



Source: www.sleepdisorderchannel.com/shiftwork

References & Resources

1. Sleep Deprivation Elevates Expectation of Gains and Attenuates Responses to Losses Following Risky Decisions; V Venkatraman, et al.; *Sleep*, Vol. 30, No. 5, 2007.
2. Shift Work Sleep Disorder: Prevalence and Consequences Beyond That of Symptomatic Day Workers; CL Drake, et al., *Sleep*, Vol. 27, No. 8, 2004.
3. Practice Parameters for the Clinical Evaluation and Treatment of Circadian Rhythm Sleep Disorders: An American Academy of Sleep Medicine Report; T Morgenthaler, et al.; *Sleep*, Vol. 30, No. 11, 2007.

Useful Websites

American Academy of Sleep Medicine:

www.sleepeducation.com

MedLine: www.nlm.nih.gov/medlineplus/sleepdisorders

National Sleep Foundation: www.sleepfoundation.org

Driver Hours of Service

An Interim Final Rule on truck drivers' hours of service issued by the Federal Motor Carrier Safety Administration (FMCSA) was upheld by an appellate court Jan. 24. The revised rule is designed to promote driver alertness and enhance highway safety. The interim rule will remain in effect while the agency collects additional data on two challenged provisions.

Cell Phone Effects

A new National Research Council report requested by the U.S. Food and Drug Administration identifies the need for further research on exposure to cell phones and other devices that emit radio-frequency energy. Researchers say more information is needed on the potential health impacts associated with multiple, long-term, low-intensity RF exposure.



Enforcement Update

The Occupational Safety and Health Administration (OSHA) conducted 39,324 inspections in fiscal year 2007, a 4.3 percent increase over its goal of 37,700. There were 88,846 violations of OSHA standards and regulations, a 6 percent increase from fiscal year 2006. The agency cited 67,176 serious violations, a 9 percent increase from the previous year and a more than 12 percent increase over the past four years. The number of cited repeat violations also rose from 2,551 in FY 2006 to 2,714 in FY 2007.

Flu Vaccine Actions

The American College of Occupational and Environmental Medicine joined 11 other organizations in support of the Influenza Vaccine Security Act of 2007 (S-2456). The legislation is intended to increase vaccination rates, improve stockpiling of supplies in the event of a pandemic and enhance distribution of seasonal flu vaccine.

In a recent ruling, an appellate court upheld an arbitral award prohibiting Virginia Mason Hospital, Seattle, Wash., from implementing a mandatory flu immunization program as a fitness-for-duty requirement for nurses and other employees.

Nanoparticle Exposure Research

The National Institute for Occupational Safety and Health (NIOSH) is seeking public review and comment on a draft document of interim guidance concerning the medical screening of workers potentially exposed to engineered nanoparticles. For information, visit www.cdc.gov/niosh/review/public.

Post-Hurricane Project

Researchers at Tulane University are conducting a health study to determine if post-Hurricane Katrina exposures of workers to dusts containing bio-aerosols (bacteria and mold) are associated with changes in respiratory health. For information, visit www.KatrinaWorkerStudy@tulane.edu.

Respirator Fit Testing

OSHA published a Notice of Proposed Rulemaking for a new respirator fit-testing protocol that would shorten seven approved exercises in the current fit-test procedure from one minute to 15 seconds. The proposed rule would apply to shipyards, construction and general industry.

Shipyards Working Conditions

A Notice of Proposed Rulemaking on General Working Conditions in Shipyards Employment was published in the *Federal Register* Dec. 20, 2007. The proposed rule is designed to help reduce hazards and increase protection for shipyard employees. Comments are being accepted until March 19.



Union Membership Growing

The number of workers belonging to a union rose by 311,000 to 15.7 million in 2007, the U.S. Bureau of Labor Statistics reported. Union members accounted for 12 percent of employed wage and salary workers. Education, training and library occupations had the highest unionization rate at 37 percent, followed closely by protective service occupations at 35 percent. For details, visit www.bls.gov/news.release/union2.