CENEGENICS medical institute

HEALTHY LIFESTYLES FOR HEALTHY AGING

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Intertwined: Sleep Disturbance & Disease

Sleep may be viewed as a resting state, but that's not quite the case. Intense activities and physiological processes occur while you sleep, linked to brain and central nervous system development. On the flip side, lack of sleep—or quality sleep—is associated with inflammation and declining health issues, upping your risk for obesity, diabetes, cardiovascular disease and infections.

Many Americans aged 40 and over struggle with sleep disturbances, but far too often chalk it up as an inevitable part of the aging process—despite the fact healthy aging individuals have little or no problems sleeping.

The medical bottom line is this: Disturbed sleep is not "normal aging" and can lead to a diminished quality of life: depression, energy loss, memory problems, reduced work performance, daytime sleepiness, nighttime falls, reliance on sleep medications and disease.

Recent study. The Cousins Center for Psychoneuroimmunology (at UCLA's Semel Center) published an article in the September 15, 2008 *Biological Psychiatry,* the official journal of the Society of Biological Psychiatry, which fosters scientific research and education in the field.

Headed by Dr. Michael Irwin, the study accumulated evidence that "sleep disturbance is associated with inflammation and related disorders including cardiovascular disease, arthritis and diabetes mellitus." Losing only a few hours of sleep can instigate tissue-damaging inflammation, putting you at risk for heart disease as well as autoimmune disorders (i.e. rheumatoid arthritis).

Irwin's research tested the effects of sleep loss on activation of nuclear factor (NF)-κB, which plays a critical role in inflammatory signaling. His team repeatedly assessed (NF)-κB and lymphocyte subpopulations in 14 healthy adults, seven women/seven men. Assessments occurred in the morning after baseline sleep, partial sleep deprivation (awake from 11 pm to 3 am) and recover sleep.

Conclusion: Addressing sleep disturbances might improve your health. Here are the findings and comments from the Cousins Center study.

- **Significantly greater NF-κB activation occurred in the morning following sleep loss**
- **Sleep deprivation is linked with enhanced pro-inflammatory processes in the body, upping risk of inflammation-related disease**—NF-κB activation shown to be a molecular pathway whereby sleep disturbance influences leukocyte inflammatory gene expression
- **America's sleep habits aren't healthy—**physical and psychological stress brought on in part by grinding work, school and social schedules is keeping millions of Americans up at night
- **Even modest sleep loss may play a role in common disorders—** which ultimately affect sweeping segments of the population

Adding to the association between lack of sleep and enhanced inflammatory responses demonstrated in this study, you should also be aware that inflammation generally increases with age. In fact, many prominent gerontologists now regard aging as a "consequence of inflammation."

According to Russell Tracy—professor of pathology and biochemistry at the University of Vermont College of Medicine—inflammatory factors predict virtually all bad outcomes in humans, including heart attacks, heart failure, becoming diabetic, fragility in old age, cognitive function decline, even cancer to a certain extent.

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New Study Shows Heart Attack Rates Fluctuate With Daylight Savings Time

In a letter to the *New England Journal of Medicine*, researchers said chances of a heart attack escalate the first three weekdays after the spring-ahead daylight savings time change—yet decline with the fall-back time shift in autumn.

That's interesting news for the 1.5 billion people globally who use daylight savings time.

In spring, people may suffer from sleep deprivation with the sleep loss versus the extra hour of rest in the fall.

Findings

- The springtime shift affected women more.
- The "Monday" in the fall time shift benefited men more.
- Individuals under 65 felt the effects more than their older counterpart, perhaps due to more restrictive schedules.

What's disturbing your sleep? Some aging adults get less-than-needed sleep, wake up more often through the night and sleep less deeply. Here are some possible reasons why:

- Menopause or andropause (male menopause)
- Changed sleep-awake patterns
- Obesity, leading to sleep-disordered breathing, such as sleep apnea
- Diminished levels of sleep-promoting hormone, melatonin
- Not enough exercise
- Prostate enlargement in men/continence issues in women
- Alcohol consumption, which makes you sleep lighter and wake up mid-night
- Caffeine consumption keeps you awake longer and could hinder your ability to fall asleep
- Too little exposure to sunlight, upsetting sleep cycle
- Sound or environmental sensitivities
- Too many daytime naps
- Certain medications
- Heartburn
- Arthritis
- Medical conditions, such as cancer, heart failure, lung disease, Parkinson's disease, dementia
- Movement disorders, restless legs syndrome (RLS) or periodic limb movement disorder (PLMD)
- Stressors, such as loss of spouse, finances, social isolation

2008 *Sleep in America* Poll
The National Sleep Foundation

- Average American's workday is 9 hours and 28 minutes.
- Average time spent in bed is 6 hours and 55 minutes—with 6 hours and 40 minutes spent actually sleeping: NSF recommends getting at least 7 to 9 hours of sleep each night.
- 34% of employers let workers take a nap during breaks—16% provide a place for the nap.
- 26% of workers would take naps if permitted.
- 58% of Americans take work home to complete at night.
- 20% spend over 10 hours a week doing job-related work at home.
- Working over 50 hours per week resulted in greater performance problems, such as productivity, impatience and concentration, compared to working 39-40 hours.

Cenegenics helps you sleep better, lose weight, stay fit and decrease inflammation. Leading authority in age management medicine, Cenegenics takes a proactive approach to promote healthy aging.

An important part of what we do is identify and meet criteria, such as those related to sleep disturbances, silent inflammation, menopause/andropause and weight issues. We use the latest diagnostics to determine your health strengths and weaknesses, then create a personalized program using established protocols and solid science to place you in the lowest possible risk category for disease.

With over 15,000 patients worldwide—1,500 are physicians and their families—Cenegenics invites you to a new definition of aging . . . one filled with energy and optimized health. As a matter of fact, we regularly receive many thank you letters from our patients, such as this one from D.K. in Hunstville, Alabama . . .

"*I just wanted to send you a short note thanking you for the vast overall improvement I have made since starting on your program. My energy levels have increased dramatically. My moods are more consistent, I think clearer and am much more focused. I am sleeping better and wake up in the morning feeling refreshed and in a good mood. I just finished a huge project that was very demanding and never ran short of energy or felt that I could not handle the workload. Previous to being on the Cenegenics program, this would not have been the case. Thanks for making my life more enjoyable and for giving me a new lease on life."*

What about you . . .how is your sleep lately? You can protect your health and experience a dramatic shift in your aging process. Simply call us today for a confidential, no-obligation discussion.

Sleep better and enjoy healthy aging now.
Learn more about personalized Cenegenics programs and the science behind age management medicine.

Call 866.953.1510.
Discussions are always confidential and without obligation.