

Women and Sleep

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Admit it. You yawn. A lot. You don't wake up until you've had your coffee in the morning, you need another jolt in the afternoon to keep you going, then fall asleep watching TV at night. When you go to bed, you just lie there thinking of things you need to do.

Think it's because of your busy lifestyle? It's more likely to be related to how well you sleep.

A number of researchers across the country have spent much of their careers looking at why women have more difficulty sleeping across the life span than men. Research has included women before, during and after menopause, women battling insomnia and studies of women with fibromyalgia and chronic fatigue syndrome.

To Sleep. . .

How'd you sleep last night? Unfortunately, for peri- and postmenopausal women, the answer often is, "Not very well."

For some women in the over-40 set, fluctuating hormones can play a part in the wake-sleep cycle; for others, chronic illness and comorbidities are to blame.

Typical menopausal symptoms such as hot flashes and night sweats contribute to women's perceptions of poor sleep, noted Kathryn Lee, PhD, RN, FAAN, professor and James and Marjorie Livingston Chair in Nursing at the UCSF School of Nursing.

A search of the literature shows critical periods for sleep disturbance at the onset of puberty and during the menopausal transition, said Carol A. Landis, DNSc, RN, FAAN, professor at the University of Washington School of Nursing said

A combination of factors is at play, including fluctuating ovarian hormones, said Joan Shaver, PhD, RN, FAAN, professor and dean, University of Illinois at Chicago College of Nursing, was one of the first to study sleep problems in menopausal women.

All three pointed to a recent study, from Wayne State University in Detroit, of 102 peri- and postmenopausal women showing some connections.¹ After participants completed sleep histories and questionnaires on mood and sleep quality, they spent one night in the sleep lab. Data collected included skin temperature, amount of sweating, blood flow, respiration, leg movements, eye movements, brain-wave activity, and chin muscle movements.

Of the 102 participants, 54 were found to have a primary sleep disorder (periodic limb movement or sleep apnea) and 57 had measurable hot flashes. In the lab, sleep disorders and short wake periods were used to indicate poor sleep, but the women were more likely to say poor sleep was a result of anxiety and hot flashes, which tend to be associated with women waking up in the first half of the night, but not the second. Landis noted women often wake up first, then have a hot flash.

"When we brought women into the sleep lab and hooked them up, there was only a 5 percent difference in wake time during the night between the groups," Lee said. "It could be what we're measuring does not really capture what these women are feeling. It's more likely women who perceive [hot flashes and night sweats] as problems have other, underlying issues."

Most studies measure sleep in women either early during the premenopausal transition or in post menopause, said Landis. Few studies actually measured sleep during the late phase of the

menopausal transition or early post menopause when hot flashes and night sweats reach peak intensity.

A report by the Study of Women's Health Across the Nation on sleep also showed women who are peri-menopausal more likely have sleep disturbances right before and right after their periods.² In addition, a recent survey of women in California showed that more than 80 percent of women with severe hot flashes also had met diagnostic criteria for chronic insomnia.³

Shaver has been researching the issue for more than 20 years.

"Lots of women find they have increased difficulty with sleep at midlife," she said. "All women's hormones are in flux at some time. In the mid-age group, hormone function is likely to be erratic, and women with a lot of hot flashes and night sweats have poorer sleep."

Perchance to Dream

While hormones "certainly play a part during the menopause transition, insomnia may not increase as much as being comorbid with other common sleep problems," said Landis.

"Women in their older years, particularly after age 50, have more chronic illnesses," observed Lee. "Another issue is weight gain. Waist circumference can contribute to sleep-disordered breathing and extra weight might also mean more congested sinuses."

"These comorbid conditions [e.g., overweight and obstructive sleep apnea] are twice as common in men as in premenopausal women," Landis added. "But when women hit menopause, the numbers become the same."

Shaver's research has shown social circumstances are directly connected with sleep disturbance.

"In our research, we looked at a midlife age group, not necessarily a group with sleep problems," she said. "At this age, some women were newly unmarried, or their children left home and they had gone back into the job market. All these things create stress that can affect sleep."

Shaver noted some midlife women with insomnia self-reported more psychosocial stress and few menopausal symptoms (hot flashes or night sweats) while others reported more menopausal symptoms but not as much psychosocial distress.

Lee also found women were more stressed, noting that one bad night of sleep sets up a vicious cycle. And, while the Wayne State study focused on comorbid factors, Lee added pets and medication side effects and interactions to the list of reasons for disturbed sleep. Other factors are pain, acid reflux/heartburn, and depression.

"The National Sleep Foundation's 2007 Sleep in America Poll on women's sleep showed sleeping with pets contributes to bad sleep," she said. "They keep waking you up. In addition, a lot of SSRIs [selective serotonin reuptake inhibitors] interfere with serotonin uptake, which is essential for sleep. You're tired, even fatigued, but you're not necessarily sleepy."

Good Night

Sleep becomes more fragile and less stable as women age, and men and women approach sleep differently.

"Most women are so tired they fall asleep right away when they go to bed," Lee said. "But their minds are whirling and they wake up again a short time later."

"The issue is much larger for women," Landis agreed. "They tend to lie quietly in the bed because they don't want to disturb their partners, or they haven't been able to get to sleep because they're waiting for the kids to come home. Women slept well in the sleep lab because they didn't have to attend to anything else."

Sleep deprivation comes into play with as little as 1 hour of lost sleep.

"We used to say if you've lost 1 hour of sleep, you lose 33 percent of your ability to function properly, but it was hard to quantify that in real-life terms," Lee said. "New research from Germany has shown 5 hours or less sleep at night over 4 nights has the same effect on daytime functioning and reaction time as going without sleep for 24 hours, and both are comparable to a blood alcohol level of 0.10 percent. Since the legal limit for alcohol is 0.08 percent, sleep loss can affect the way you drive a car. This is readily corrected after a good night's sleep."

Sleep Tight

So what's the solution? Surprisingly, it's not caffeine.

"A large dose of caffeine in the morning really isn't a good remedy because you crash when it wears off," Lee said. "That doesn't mean don't have your latte on the way to work, just to be prepared when the low point comes."

Lee recommends exercise instead of the afternoon cup of coffee.

"Instead of drinking the coffee, take the break," she said. "Go outside and walk for 15 minutes. You could even take the coffee with you to begin with, then wean off to just walking. The exercise will perk you up with no crash, and you'll feel better, less tired."

Walking also resets the circadian clock.

"Sedentary women who spend most of their time in the house might have a more difficult time falling asleep and staying asleep," Lee continued. "Getting out to walk during the daylight, even for 15 minutes, can help the brain and body make the switch between day and night."

Sleep aids can be used occasionally, but not every night. Prescription sleeping pills such as eszopiclone or zolpidem are OK when used PRN, but they also have negative side effects, Landis said.

"The long-term efficacy of sleep aids hasn't been shown for most sleeping pills," she said. "Over-the-counter drugs are not good alternatives. First-generation sedating antihistamines have longer 'hangover' effects than prescription sleep aids. And a new study of valerian showed no benefit at all."

Shaver suggests treating the symptoms.

"The important part is not that you wake up, but that you get back to sleep," she said. "If hot flashes or sweats wake you up, sleep with a fan or use sheets that will wick. If it's psychological distress, use stress management and deep relaxation techniques."

Used with good sleep hygiene, pre-sleep rituals, relaxation techniques and cognitive therapy can make up for many sleep problems.

"Don't lie in bed trying too hard to fall asleep," Shaver said. "Get up, do something relaxing. Go back to bed when you're sleepy, and if you don't fall asleep after 10 minutes, get up and repeat."

"All relaxation techniques have to be practiced," she continued. "Sleep may be elusive at first, but with time, it will come."

References

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2. Kravitz, H. M., et al. (2005). Relationship of day-to-day reproductive hormone levels to sleep in midlife women. *Archives of Internal Medicine*, 165:2370-6.
3. Ohayon, M.M. (2006). Severe hot flashes are associated with chronic insomnia. *Archives of Internal Medicine*, 166: 1262-8.

To schedule a sleep study at Salem Township Hospital, call 533-8700.