

OPTIMAL HEALTH UNIVERSITY™

Presented by Dr. Shirley, Dr. Choate, Dr. Rausenberger, & Dr. Smith

Why Not to Sleep With the TV On

Your doctor at Spinal and Sports Care Clinic believes a good night's sleep is an integral part of the chiropractic lifestyle: a philosophy that focuses on preventing disease before it occurs.

Studies show that one of the greatest contributors to sleeplessness — in addition to stress, work demands and family pressure — is television.

Even if watching TV doesn't keep you up, sleeping with the TV on poses additional health risks. A growing body of research links nighttime exposure to the "ambient" light emitted from a television screen to an array of disorders.



Restless Sleep

The light from a television screen can spark restless nights that jeopardize the immune system and cause daytime drowsiness. This is one reason why your doctor at Spinal and Sports Care Clinic urges patients to avoid sleeping with a TV on in the room.

In a landmark study, researchers noted the negative effect of ambient (surrounding) environmental lighting on sleep/wake patterns. The study included 17 patients with wrist-worn and free-standing light meters. Light sources included "soft glow" wall-mounted fixtures behind the beds.

The study explains that "disrupted sleep in hospitalized patients is widely reported, and ambient environmental lighting may be both a contributor to and a modifier of sleep/wake patterns." (*Res Nurs Health* 2007;30:120-8.)

Depression

According to late-breaking research, exposure to dim light at night may cause depression. What's more, it may cause changes to the structure of the brain. These findings were presented at the annual meeting of the Society for Neuroscience in San Diego, Calif.

Investigators at Ohio State's Institute for Behavioral Medicine Research conducted an experiment with hamsters. Half were housed in a standard light-dark cycle of 16 hours of daylight and eight hours of total darkness. The other half were housed in 16 hours of daylight and eight hours of dim light equivalent to that emitted by a television.

After eight weeks in their lighting condition, the hamsters were tested for depressive-like behaviors. These tests are the same ones used by pharmaceutical companies to test anti-depressive and anti-anxiety drugs in animals before they are used in humans.

One depression test, for example, measured how much sugar water the mice drank. Mice generally like the drink, but those with depressive-like symptoms will not drink as much, presumably because they don't get as much pleasure from activities they usually enjoy.

Results showed that hamsters that lived in the dim light at night showed more symptoms of depression compared to the hamsters in the standard light-dark cycle. In addition, the researchers found significant changes in part of the brain called the hippocampus.

"Even dim light at night is sufficient to provoke depressive-like behaviors in hamsters, which may be explained by the changes we saw in their brains after eight weeks of exposure," explains study co-author, Tracy Bedrosian.

"The hippocampus plays a key role in depressive disorders, so finding changes there is significant," Bedrosian adds.

"You would expect to see an impact if we were blasting these hamsters with bright lights, but this was a very low level, something that most people could easily encounter every night," notes co-author Randy Nelson.

Breast Cancer

Your doctor at Spinal and Sports Care Clinic is also concerned about animal studies linking nighttime exposure to artificial light with the growth of breast tumors. The theory, according to an article published in the peer-reviewed medical journal *Cancer Research*, is that light suppresses melatonin levels. Extended periods of nighttime darkness, however, boosted this key hormone's levels and substantially slowed tumor growth.

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In another survey of 100 women who suffered from breast cancer and 100 healthy women, researchers detected a significant difference between the group of cancer patients and the healthy group in their proximity to large shopping centers, malls, and entertainment areas. These places generally make use of “blue” lighting, a type of ambient lighting, that, while more intense than light from a television, may be related to it.

Researcher Itai Kloog of the University of Haifa in Israel explained, “The body produces the hormone melatonin at night, when it is dark. This hormone delays the growth of cancerous cells. Therefore, any reduction of this hormone in the blood as a result of exposure to artificial lighting constitutes another factor putting women at risk of falling ill with breast cancer.”

That’s why it’s important to block out as much ambient light as possible — not only from glaring television screens but illuminated clocks and, in children’s bedrooms, glow-in-the-dark ceiling decorations. According to a study published in the *European Journal of Cancer Prevention*, blocking out the light “may prevent the suppression of melatonin, which could help to prevent cancer.”

Additional Negative Effects of a Bedroom TV

Televisions in the bedroom do more than just keep you awake. They can also form a sound barrier that keeps you from hearing an intruder or the cries of a sick child in the middle of the night.

In addition, numerous studies show that a television in the bedroom inhibits communication and intimacy among couples. This, in turn, can create marital stress and strain: both of which are linked to disease.

Kids Bedrooms: TV-Free Zones

It is particularly crucial that children and adolescents do not sleep with the television on. The only way to ensure this is to insist that children’s bedrooms are TV-free zones.

According to a German study, “lack of sleep in children has been associated with a diminished school performance, reduced attention span, and obesity.” (*Gesundheitswesen* 2007;69:151-7.)

Of the 1,933 children who participated in the study, 28 percent reported going to bed after 9 PM on weeknights and 16 percent reported watching television more than three hours per day.

In Belgium, a survey of 2,546 youngsters (ages 12 to 15) revealed that 36.7 percent reported watching television to help them fall asleep. Findings showed that using TV as a sleep aid “is negatively related to respondents’ time to bed on weekdays, their number of hours of sleep per week and their self-reported level of tiredness.” (*J Paediatr Child Health* 2006;42:428.)

Researchers in Finland looked at the effects of various forms of TV exposure on the quality of children’s sleep.

“Both active TV viewing and passive TV exposure were related to sleeping difficulties, especially sleep-wake transition disorders and overall sleep disturbances. Particularly, passive TV exposure and viewing adult-targeted TV programs were strongly related to sleep disturbances.” (*J Sleep Res* 2006;15:154-61.)

In China, the parents of 19,299 elementary-school children completed surveys detailing their children’s sleep patterns. The results indicated that televisions were present in the bedrooms of 18.5 percent of youngsters.

“Overall, the most affected sleep behaviors were bedtime and awakening time on the weekends, the duration of sleep during the weekdays, and sleep disorders of bedtime resistance and sleep anxiety.” (*Sleep* 2007;30:361-7.)

At the Pacific Institute for Research and Evaluation, Chapel Hill Center, University of North Carolina at Chapel Hill, researchers investigated a group of 735 youngsters (ages 12 to 14) to determine television’s impact on smoking behavior.

Surprisingly, private access to television during early adolescence — indicated by having a bedroom television — was a significant predictor of smoking initiation (*Arch Pediatr Adolesc Med* 2007;161:260-8).

Sweet Dreams

Sleep is simply too important to let anything compromise its remarkably restorative powers.

If you suffer from sleep disturbances, try giving your bedroom television the boot. And, make sure to schedule an appointment for a chiropractic evaluation focused on uncovering any other “hidden” causes of your insomnia.

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