

## **The effects of stress on sleep in older subjects**

Several other factors, such as stress, have been proposed to significantly increase the vulnerability of the sleep-wake cycle to the effects of aging. It has been shown for example that a similar stress experience may have more negative impact on sleep of older subjects than in the young.

Much more research is needed to come to grips with the many factors in sleep dysfunctions that accompany aging, and what roles they play in this process. A first step in the direction of better sleep is to know what interferes with it.

### ***12 recommendations to sleep soundly as we get older***

1. Don't panic. Age-related sleep changes are normal unless you feel a negative impact on your life.
2. Discuss sleep difficulties with your doctor. Let him/her know if you suspect being afflicted by a primary sleep disorder or if your medical/mental condition interferes with your sleep.
3. Discuss possible side effects of medication with your pharmacist or doctor.
4. If your night sweats or hot flashes interfere with your sleep, discuss it with your doctor.
5. Adopt a regular sleep-wake cycle and sleep a sufficient number of hours every night. Older subjects may have more difficulties to recover following sleep deprivation.
6. Reduce drugs and stimulants intake (caffeine, nicotine, alcohol) as much as possible.
7. Create an optimum environment for sleep: quiet and dark room, comfortable ambient temperature.
8. Try to stay away from night-work.
9. If you experience jet lag, allow yourself time to adjust to the new time zone.
10. Diminish stressful experiences and worries at bedtime as much as possible.
11. Be active, eat well and exercise: good health is strongly associated with good sleep.
12. Don't eat too much or exercise near bedtime.

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# **SLEEP AND AGING**



**CANADIAN SLEEP SOCIETY**

## **Do older individuals have more sleep problems than young people?**

The commonality of sleep problems among older adults is now well established. Many factors may interfere with optimal sleep and wakefulness in older adults and explain a significant proportion of this age-related increase in sleep difficulties. Acute and chronic illness, the side effects of medication, mental health conditions, primary sleep disorders and abrupt, uncontrollable changes in both social and personal life may all contribute to the development of sleep difficulties in the elderly.

*Older subjects suffer more from primary sleep disorders*

The prevalence of some primary sleep disorders such as sleep apnea disorder (pauses in breathing during sleep), periodic leg movement in sleep (repetitive limb movements during sleep that may induce partial or complete awakenings), and restless sleep syndrome (overwhelming urge to move the legs usually caused by uncomfortable or unpleasant sensations in the legs) starts to increase significantly in the middle years of life. The National Sleep Foundation estimates that 35% or more of people aged 65 years and older experience periodic leg movement in sleep. Others have estimated that 4% of men and 2% of women over the age of 50 have sleep apnea in addition to experiencing excessive daytime sleepiness. Older people who suspect that they have a primary sleep disorder should consult their doctor. For more information on sleep disorders you may also consult other brochures from the Canadian Sleep Society.

*Physical and mental health status are closely related to sleep problems in older subjects*

The relationship between health and sleep is of great importance for the elderly. In fact, older adults with newly identified illnesses are more likely to complain of chronic insomnia within the next few years than are older individuals who do not develop such medical illnesses. Cardiovascular diseases, pulmonary diseases, chronic pain conditions, and dementia are all associated with morning fatigue and/or daytime sleepiness while also being a cause of poor nocturnal sleep quality.

Psychiatric disorders also have acute symptoms that might contribute to sleep difficulties. For example, the association between major depression and insomnia is now well established.

Finally, elderly individuals frequently take medication. Advanced age and frailty may increase their

susceptibility to the adverse side effects of medication.

## **Will my sleep change with age even if I do not suffer from sleep, medical or psychological problems?**

Sleep changes occur from cradle to grave. Important modifications of the sleep-wake cycle occur also in "optimal aging," i.e., in individuals free of any medical or psychiatric condition, and who do not present with specific sleep disorders. Compared to young subjects, elderly individuals show:

1. Earlier bedtimes and earlier wake-up times
2. More sleep during the day (naps)
3. Less sleep less during the night
4. More awakenings during the sleep episode, especially in the second half of the night.
5. Lighter sleep.

## **With aging, will I have more difficulty adapting to situations where my sleep is put to a challenge?**

Older people not only show sleep modifications, but they also appear to be more sensitive to challenges imposed upon their sleep-wake cycle. For example, older people have more problems adjusting to shift work than younger individuals do, they adapt more slowly to jet lag and they take more time to recover from sleep deprivation.

## **When should I expect my sleep to change?**

The effects of aging on the sleep-wake cycle are gradual. Many sleep characteristics may change as early as the mid-thirties while other sleep characteristics will change only later during the life span. Importantly, members of the middle-aged population may be particularly at risk of suffering from perturbations to the sleep-wake cycle. Their multiple social, familial and professional responsibilities not only limit the strategies they may adopt to alleviate their sleep and alertness problems (e.g., fewer opportunities to nap, to change sleep-wake schedules, etc.), but they also enhance the consequences of such problems (lower productivity level, higher risk for accidents, irritability, etc.).

## **Do age-related sleep changes necessarily have negative consequences on quality of life of older individuals?**

Importantly, for many healthy older individuals age-related sleep modifications may go unnoticed and will not induce sleep or vigilance complaints in most cases. Age-related modifications may or may not have negative consequences for the elderly. It is

possible that aging is associated in some individuals with a reduced need for sleep. Stated differently, less sleep would be necessary as the person increases in age. However, it is also possible that age-related changes in the sleep-wake cycle have negative effects on the daily lives of elderly individuals. A better understanding of the effects of age-related changes in sleep parameters is important in terms of treatment planning, implementation and evaluation.

## **Is it O.K. to nap as we get older?**

Napping does not have negative effects in older people who do not complain of insomnia. However, it is important to note that if you sleep during the day you may be less inclined to sleep during the night.

## **What factors may contribute to age-related sleep difficulties with aging?**

Many variables have been proposed as potentially significant contributors to the increase in vulnerability of the aging sleep-wake system to disturbances. These include stimulants consumption, menopause and stress.

## **The effects of caffeine on sleep in older individuals**

Caffeine is the most widely used central nervous system stimulant in North America and older individuals regularly consume it. Caffeine mimics some of the effects of aging on sleep. It decreases deep sleep and increases wakefulness across the night. Not surprisingly, it is quite possible that caffeine leads to more important disruption of sleep in older subjects compared to the young. We should consume it with moderation.

## **Does menopause influence my sleep?**

About half of menopausal women complain about their sleep. Menopausal women are twice as inclined as pre-menopausal women are to use sleeping pills, as they sleep less and suffer more often from insomnia symptoms. However, not every woman will have sleep problems throughout menopause. Very few studies have evaluated the effect of menopausal status on objective sleep parameters in the laboratory and the ones that have show inconsistent results. Evidently, more studies are needed to define and understand the factors associated with sleep quality in menopausal women. The importance of vasomotor symptoms such as night sweats and hot flashes remains undetermined, but they also seem to play a role in the subjective complaints of women. Finally, the effects of hormonal therapy in menopausal women on sleep parameters require further study.