

## **Sleep and Exercise**

The question of how evening or late in the day exercise can have an influence on restful overnight sleep has been hotly debated for many years. Although the advice we most often hear is that exercising within a few hours of bedtime is not a good idea for restful sleep, the carefully controlled research that has been done on this subject simply does not back up this commonly held belief.

For example, a study published in *Sleep Medicine* in 2011 found that treadmill workouts starting at 6:00 p.m. were just as effective for improving sleep in middle-aged individuals (aged 35 – 55) with chronic insomnia as exercise bouts that were done in the early morning pre-work hours.

Another very recent study, published in *Psychophysiology* this year, found that moderate aerobic exercise done at 8:00 p.m. helped promote sleep in young men who went to bed two to three hours later. Similarly, a 2004 study of older adults, published in the journal *Sleep*, found that activity (including low-impact aerobics) done between 7:00 p.m. and 8:30 p.m. improved sleep as well as early morning workouts did.

We do know that exercise has a variety of potentially sleep-impairing *and* sleep-enhancing effects on the body. Notably, it can raise heart rate, body temperature and alertness, which, if they remain elevated, could interfere with sleep. On the other hand, exercise can help reduce anxiety and help people to relax, and both of those are a benefit for restful sleep.

It is best to be mindful that the effects of exercise on restful sleep can vary from person to person. Additionally these effects depend not only on fitness level and your own individual sleep problems, if any, but also the type, length, timing, and intensity of the workout.

Perhaps the best antidote for overall quality of sleep is to try and be consistent with your daily exercise time, be it in the morning or evening. If you believe that your evening exercise is interfering with your sleep, see if earlier workouts improve matters.