

Insufficient sleep may be linked to increased diabetes risk

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Short sleep times, experienced by many individuals in Westernized societies, may contribute to the development of insulin resistance and reduced glucose tolerance, which in turn may increase the long-term risk of diabetes, according to a new study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism* (JCEM).

Sleep curtailment is an increasingly common aspect of the Western lifestyle, which is characterized by physical inactivity and overeating. Today, many Americans [sleep](#) fewer than six hours each night and individuals who report such short sleep times have in previous studies demonstrated an increased risk of developing diabetes. This new study examined whether reduced sleep duration itself may increase the risk of developing diabetes when combined with physical inactivity and overeating.

Researchers in this study subjected a group of healthy middle-aged men and women to two controlled 14-day periods of sedentary living with free access to food and 5.5 or 8.5 hour bedtimes. When the subjects had their bedtimes decreased from 8.5 hours to 5.5 hours they showed changes in their response to two common sugar tests, which were similar to those seen in people with an increased risk of developing diabetes.

"Our findings raise the possibility that when the unhealthy aspects of the Westernized lifestyle are combined with reduced sleep duration, this might contribute to the increased risk of many overweight and sedentary

individuals developing [diabetes](#)," said Plamen Penev, MD, PhD, of the University of Chicago and a senior author of the study. "If confirmed by future larger studies, these results would indicate that a healthy lifestyle should include not only healthy eating habits and adequate amounts of physical activity, but also obtaining a sufficient amount of sleep."

Since the conclusions of this study are based on the detailed evaluation of a small group of subjects over a limited period of time under carefully controlled laboratory conditions, Dr. Penev emphasizes that additional intervention studies will be needed to examine the impact of habitual sleep curtailment on human glucose metabolism.

More information: The article, "Exposure to recurrent sleep restriction in the setting of high caloric intake and physical inactivity results in increased [insulin resistance](#) and reduced glucose tolerance," will appear in the September 2009 issue of *JCEM*.

Source: The Endocrine Society ([news](#) : [web](#))

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