

Maximum Wellness 6.10.2020

Short and Long-Term Sleep Patterns Can Affect Mortality

As we age, especially over 65, our habitual sleep duration changes – emphasizing a potentially shorter duration that has been associated with increased risk to obesity and hypertension – irrespective of sleep apnea (stop breathing) interruptions.

According to Association of Longitudinal Patterns of Habitual Sleep Duration with Risk of Cardiovascular Events and All-Cause Mortality, which appeared on JAMA Network Open in April of 2020, “a laboratory study suggested that a repeating pattern of insufficient sleep may lead to long-term metabolic changes that cannot be effectively mitigated by weekend recovery sleep.”

These findings, comment the Chinese study authors, “highlight the importance of examining the effect of long-term patterns of sleep duration beyond single or mean measures, which fail to consider the effect of change in sleep duration over time.”

Chinese researchers sought to look at the direction of long-term versus single-measure sleep duration’s effect on cardiovascular events (CVE’s) and all-cause mortality - by using the Kailuan study population of 52,599 Chinese adults without atrial fibrillation, myocardial infarction, stroke, or cancer - between 2006 to 2010 - with risk of CVEs and all-cause mortality from January 1, 2010, to December 31, 2017.

Study participants completed a face-to-face questionnaire survey, which highlighted demographic characteristics, medical comorbidity, medical history, medication use, and lifestyle factors - including measures of sleep, clinical examinations, and laboratory tests. Participants were then followed up biennially to update the data – with outcome events recorded annually until death or December 31, 2017, whichever came first.

The study data suggested that, “trajectories in sleep duration were significantly associated with the risk of the first CVE’s and death, even after adjustment for a single measure of baseline sleep duration.” The authors note that conventional evidence supports that, “single measures of sleep duration were associated with adverse health outcomes.”

Relative to the effects of short-term versus long-term sleep duration, “participants with short (less than 6 hours per night) and long (8 to less than 9 hours per night) sleep duration had adverse health outcomes, regardless of their earlier sleep patterns,” which led to the findings that, “trajectories of long-term sleep duration

are associated with subsequent risk of CVE's and death besides one-off measures closer to the time of events."

The Chinese researchers said that, "the better understanding of the effect and timing of change in sleep duration may help to identify populations with higher risk, who can then be targeted with interventions to promote cardiovascular health and healthy sleep."

In conclusion, "sleep duration trajectories with lower or unstable patterns were significantly associated with increased risk of subsequent first CVEs and all-cause mortality." As was noted, much more research is needed to determine the appropriate quality and quantity of sleep, including napping, to add to our menu of healthy living criteria.