



Sleep Wellness



The relationship between cardio-metabolic disease and sleep deprivation.

Sleep deprivation is a risk factor for cardio-metabolic diseases. There is a correlation of short duration sleep and cardio-metabolic diseases. While there are more factors that play a role in cardio-metabolic diseases sleep duration has been understated. Sleep not just affects mood, and cognition, it also affects one's physiological health. These correlations include obesity, diabetes, hypertension, lipids, and coronary calcifications.

- Sleep and Obesity: Obesity, now declared a global epidemic by the World Health Organization. With the rise of sleep deprivation is also a rise in obesity. This “inverse” parallel trend peaked researchers to conduct research. Leptin a hormone that regulates energy and satiety. Ghrelin a hormone that enhances appetite. With the lack of sleep leptin is suppressed and ghrelin is stimulated increasing hunger, energy intake and storage of adipocytes. Over time this can facilitate weight gain.
- Sleep and Diabetes: Short term sleep deprivation is associated with glucose intolerance, insulin resistance, reduction in disposition index and a reduced peripheral insulin response to glucose.



Sleep Wellness

- Sleep and Hypertension: Hypertension or high blood pressure is leading the global health risks. Studies suggest those who are sleep deprived are at risk of hypertension. With the current research its suggesting that sleep extension directly benefits blood pressure.
- Sleep and Lipids: Longitudinal evidence suggests that there is an unfavorable correlation between short duration of sleep and blood lipid profile. With the review of all available evidence the trends suggest that those who sleep less than 5 hours or less have a 10% greater risk of hypercholesterolemia.
- Sleep and Coronary Calcifications: Coronary Artery Risk Development in Young Adults (CARDIA) in Chicago did a study that measured sleep metrics. The results were that those who slept for 5 hours or less had an increased risk in developing coronary calcifications. These are factors for myocardial infarctions (heart attacks). The rate of calcifications development was 33% in those who are sleep deprived.

Reference: Content came from Psychological Aspects of Cardiovascular Diseases (A Steptoe, Section Editor) Sleep and Cardio-Metabolic Disease by Francesco P. Cappuccio & Michelle A. Miller

Link: <https://link.springer.com/article/10.1007/s11886-017-0916-0#Sec21>

**Schedule a sleep workshop
today!**

