

UCSD Researchers Identify Connection Between Sleep Disruption and Increased Cardiovascular Risk in Healthy Men and Women

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Researchers at the University of California, San Diego (UCSD) School of Medicine have discovered that sleep disruption in seemingly healthy subjects is associated with increased clotting of the blood, which has previously been shown to predict cardiovascular disease. The findings were published in the March issue of *CHEST*, the official publication of the American College of Chest Physicians.

"In previous work, we have found that sleep disruption was linked to pro-coagulant (i.e., pro-clotting) activity in patients with sleep apnea, and in patients facing harrowing long-term stress. Now, we have seen the same pattern of findings even in healthy normal subjects," said Joel E. Dimsdale, M.D., Professor of Psychiatry at UCSD.

Full-night polysomnography, a sleep study that involves recording brain waves and airflow at the nose and mouth, was performed in 135 men and women, average age 36, who had no history of sleep disorders. Through these measurements, a parallel correlation was found between higher levels of spontaneous sleep disruption and higher levels of compounds in the blood that serve as markers for clotting.

"Sleep disruption needs to be taken seriously," said Dimsdale. "It is known that certain forms of sleep disruption such as obstructive sleep apnea convey extensive cardiovascular risk. We now know that sleep disruption is a potential factor in heart disease even in the average person."

Additional contributors to this study include Paul J. Mills, Ph.D., and Sonia Ancoli-Israel, Ph.D., from the Department of Psychiatry; Jose S. Loredó, M.D., Department of Medicine; and Loki Natarajan, Ph.D., Department of Family and Preventive Medicine at University of California San Diego, La Jolla, CA, and Roland von Känel, M.D., Department of General Internal Medicine, from University Hospital Berne, Switzerland. The research was funded by a grant from the National Institutes of Health

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