

News

Why Insufficient Sleep is Unpleasant for Your Heart?

Isra Sohail

In recent years, numerous studies have shown that people who don't get sufficient sleep are threatening their life to a greater risk of stroke and heart attack. Recently a new study at the University of Colorado published novel research in the Journal of Experimental Physiology about the hazards of insufficient sleep. This research reveals that adequate sleep plays a vital role to maintain a vascular system of the body as compared to inadequate sleep which directly influences gene expression.

Previously American Heart Association proposed that more than 6.5 hours of sleep cause shorten the height of individuals. Therefore, the average American's sleep duration had fallen rapidly from 9 hours nightly to 6.8 hours over the past century. But in contrasting a recent study, DeSouza's group discovered that people who get 6 hours sleep per night their arteries don't dilate properly because of their endothelial cells who unable to perform their function adequately. But the factors who involve in this activity of dysfunctioning still unknown.

DeSouza actually trying to find out the activity of microRNA which directly influences gene expression of those adults who are unable to get enough sleep. Therefore, the adequate function of microRNA receiving a lot of scientific attention because of their positive effect on the cardiovascular system and negative impact on cardiovascular health.

DeSouza and his team also explored the effect of insufficient sleep on dysfunctioning of microRNA signature. They took blood samples from 24 healthy men and women, age 44 to 62, who had filled out questionnaires about their sleep habits. Half slept 7 to 8.5 hours nightly; Half slept 5 to 6.8 hours nightly. They discovered that people with insufficient sleep had 40 to 60 percent lower circulating levels of miR-125A, miR-126, and miR-146a, than those who slept enough.

But "Why 7 or 8 hours seems essential is still a question," said DeSouza. "However, it is found that limited or restricted sleep affects the physiological regulators of the body such as microRNAs," he said, it's possible that microRNAs could be the ultimate source in blood of cardiovascular disease in people with inadequate sleep, enabling doctors to derive more authentic information via a blood test rather than more invasive tests.

Research is now underway in DeSouza's lab to ascertain whether restoring adequate sleep pattern can restore beneficial levels of microRNAs.

Keywords:

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