

Insomnia is linked with recurrent heart events in coronary patients

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Nearly half of heart disease patients have insomnia, according to research presented at ESC Preventive Cardiology 2022, a scientific congress of the European Society of Cardiology (ESC), and published in *SLEEP Advances*.

"Sleep problems are linked to [mental health issues](#), but our study found that insomnia was still significantly associated with heart events even after accounting for symptoms of anxiety and depression," said lead author Lars Frojd, a medical student at the University of Oslo, Norway. "The findings suggest that [heart patients](#) should be assessed for insomnia and offered appropriate management."

The prospective study included 1,068 consecutive patients an average of 16 months after a [heart attack](#) and/or a procedure to open blocked arteries (stent implantation or bypass surgery). Data on insomnia, risk factors for repeat heart events, and co-existing conditions were collected at baseline.

Participants completed the Bergen Insomnia Scale questionnaire which is based on the [diagnostic](#)

[criteria](#) for insomnia. Six questions cover the ability to fall asleep and stay asleep, waking up prematurely, feeling inadequately rested, tiredness during the day that affects ability to function at work or socially, and being dissatisfied with sleep.

The risk factors included C-reactive protein (a marker of inflammation), smoking status, [low-density lipoprotein](#) (LDL) cholesterol, diabetes, physical activity, waist circumference, and systolic blood pressure. The co-existing conditions were stroke, transient ischemic attack, [peripheral artery disease](#), and kidney failure.

Patients were followed for the primary composite endpoint of major adverse cardiovascular events (MACE), defined as [cardiovascular death](#), hospitalization due to myocardial infarction, revascularization, stroke or heart failure. Outcome data were obtained from hospital records.

Approximately one in five participants (21%) were women. At baseline, the average age of patients was 62 years, almost half (45%) had insomnia and 24% had used sleep medication in the past week. During an average follow-up of 4.2 years, a total of 364 MACE occurred in 225 patients.

Compared to those without insomnia, the relative risk of recurrent MACE in patients with insomnia was 1.62 after adjusting for age and sex, 1.49 after additional adjustment for coronary risk factors, and 1.48 after also adjusting for co-existing conditions. The association between insomnia and recurrent MACE remained significant when symptoms of anxiety and depression were also adjusted for, with a relative risk of 1.41.

Insomnia accounted for 16% of recurrent MACE in attributable risk fraction analyses, being third in importance after smoking (27%) and low physical activity (21%). Mr. Frojd says that "this means that 16% of recurrent major adverse cardiovascular events might have been avoided if none of the

participants had insomnia."

He concluded that their "study indicates that insomnia is common in heart disease patients and is linked with subsequent cardiovascular problems regardless of risk factors, co-existing health conditions and symptoms of mental health. Further research is needed to examine whether [insomnia](#) treatments such as [cognitive behavioral therapy](#) and digital applications are effective in this patient group."

More information: Aastebol Frojd et al, Insomnia as a predictor of recurrent cardiovascular events in patients with coronary heart disease, *SLEEP Advances* (2022). [DOI: 10.1093/sleepadvances/zpac007](#)

Provided by European Society of Cardiology

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