Insomnia jeopardizes physical and mental health


Extensive Norwegian data confirm that insufficient sleep increases future risks of heart attacks, chronic pain and mental problems such as depression.

Norwegian and Finnish researchers have linked insomnia to a number of disorders and diseases, with the effects evident as long as 11 years after the sleep problems started.

They’ve shown this connection in a new study published in the Journal of Sleep Research, which presents extensive data from the large population-based HUNT 2 (1995-97) and HUNT 3 (2006-2008) health studies conducted in Norway’s North Trøndelag County.

Insomnia is more than just a few nights of poor sleep. It is defined as a longer period, where individuals have major difficulties falling asleep, wake up in the middle of the night and/or too early in the morning.

This results in insufficient hours of solid sleep.

Harder to retain a job

“A person is defined as having the main symptoms of insomnia if he or she often has problems falling asleep, or wakes up intermittently, which results in severe fatigue or a general reduction in his or her ability to function in the daytime,” says Professor Børge Sivertsen, the first author of the new study.

Sivertsen is a sleep researcher and head of the Department of Public Mental Health of the Norwegian Institute for Public Health in Bergen.

“Fatigue and the health problems that can stem from insomnia also raise the risk of falling out of the job market,” he says. “One thing is that your body doesn’t get enough rest, and you become more tired. This usually means that you move around less, get less exercise, which in turn can add to aches and pains.”

Heart attacks

The new study by the Norwegian-Finnish team points out that insomnia constitutes an independent risk factor for depression, anxiety and somatic disorders such as heart attacks, asthma, fibromyalgia, arthrosis, osteoarthritis and osteoporosis.

A person with insomnia runs twice the risk of being diagnosed with anxiety or depression as people who sleep well.

The risk of osteoarthritis rises by 87 percent, whereas the risk of heart attacks increases by about 50 percent.

“The link to heart attacks is particularly interesting,” Sivertsen says. "One possible explanation is that sleep problems raise the stress response of the body, which has a negative impact on the function of the heart.”
No link to cancer

The association with fibromyalgia, a relatively new diagnosis characterised by chronic pains in multiple places, is also strong.

Sivertsen and his colleagues show that the risk of fibromyalgia doubles for people who don't get enough good quality sleep.

Although the researchers found connections between insomnia and the development of a number of disorders, insomnia doesn’t increase the odds of getting all diseases.

“We found no links to obesity, type 2 diabetes or cancers,” says Sivertsen.

Unknown causes

The mechanisms behind the links between insomnia and this array of health problems remain a mystery.

But earlier studies offer a clue: insomnia is linked to changes in the immune system and a higher level of inflammation in the body, which makes sufferers more vulnerable.

About five percent of Norwegians suffer sleep problems that would qualify for an insomnia diagnosis.

Sivertsen says that many more have the typical symptoms that researchers used to define insomnia in their study.

Important consequences

The researchers think the clinical consequences of their findings can be substantial.

“If we can intervene at an early point and prevent and treat sleep problems, maybe we could cut down the development of anxiety and depression, or somatic health problems such as heart attacks,” says Sivertsen.

He thinks these kinds of preventative measures could be implemented through relatively accessible provisions, such as self-help treatment.

“Then we could avoid having to refer patients to sleep specialists and sleep clinics, which we have so few of in Norway,” says Sivertsen.

He adds that the first thing a doctor prescribes as treatment is to get outside in the fresh air and establish good sleeping routines.

Cognitive behaviour therapy is the traditional option beyond that.

Enough to keep you up at night

Sivertsen points out that study subjects who exhibited the core symptoms of insomnia in 1995-97 didn’t have to be troubled by these problems all the way to 2006-2008 for their risk of other health problems to be increased.

“We evaluated the risk for everyone who reported typical symptoms for at least one month,” he said. “But what’s unique about our study is that in a huge cohort, consisting of tens of thousands of people, we had the opportunity to check the same individuals for the same disorders 11 years later.”
Insomnia is more than just a few nights of poor sleep. (Photo: Istockphoto)

Børge Sivertsen. (Private photo)

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Børge Sivertsen's profile

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