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Christopher Bergland
The Athlete's Way

DEMENTIA

Frequent Sauna Use May Reduce Risk of Dementia, Study Finds

Regular sauna use is linked with lower risk of dementia and Alzheimer's disease.

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disease, according to a first-of-its-kind study by researchers at the University of Eastern Finland (UEF). The **findings** were published in the December 2016 journal *Age and Ageing*.

After assessing weekly 'sauna bathing' habits, study participants were divided into three groups: those who took about a 15-minute sauna 4-7 times a week, those using a sauna 2-3 times a week, and those who only used a sauna once a week.

Notably, the researchers found a dose-response between the frequency of weekly sauna habits and dementia risk. The more frequently someone used a sauna each week, the lower the risk of dementia. For example, among those who used a sauna 4-7 times a week, the risk of any form of dementia was 66 percent lower and the risk of Alzheimer's disease 65 percent lower than among those taking a sauna just once a week.

This sauna-use research was conducted over two decades as part of the **Kuopio Ischaemic Heart Disease** (KIHD) study that included 2,315 apparently healthy men aged 42–60 years at baseline between 1984-1989. Analysis of the KIHD data was adjusted for age, body mass index, systolic blood pressure, smoking status, alcohol consumption, Type 2 diabetes, previous myocardial infarction, resting heart rate, and serum low-density lipoprotein cholesterol.

Previous research from the KIHD study found that men who used a Finnish style, 175°F dry-heat sauna (for an average of 14 minutes per visit) 4-7 days of the week had significantly lower death rates from cardiovascular disease and stroke

Medicine.

It's not surprising that the first study on the neuroprotective and cardiovascular benefits of sauna bathing comes from Finland. The word *sauna* itself is Finnish. Saunas have long been an integral part of Finnish culture and national identity. It's estimated that the country with a population of around 5.4 million has over 3 million public and private saunas. In Finland, year-round sauna use is typically a common lifestyle habit for people of all ages.

Increasing Heart Rate and Blood Flow via Exercise or Sauna Use May Both Have Neuroprotective Benefits

According to Professor [Jari Laukkanen](#), who led the sauna research, frequent heat exposure during sauna bathing may protect both the heart and memory via similar, but still poorly understood mechanisms. In a [statement to UEF](#), he said, "However, it is known that cardiovascular health affects the brain as well. The sense of well-being and relaxation experienced during sauna bathing may also play a role."

In the past decade, countless studies on the neuroprotective benefits of moderate-to-vigorous physical activity (MVPA) have shown that regular aerobic exercise has the power to improve mood, reduce anxiety, lower depression risk, and optimize cognitive function across the human lifespan.

Breaking a sweat via aerobic exercise has also been found to stimulate the production of BDNF ([brain-derived neurotrophic factor](#)) which acts like 'Miracle-Gro' fertilizer and triggers neurogenesis, which bulks up gray matter brain volumes. Regular MVPA also improves the integrity of white matter

THE BASICS

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A **July 2016 study** by Laura D. Baker and colleagues at Wake Forest School of Medicine (WFSM) in North Carolina, found that participants who performed moderate-to-vigorous aerobic exercise (most commonly using a treadmill) increased blood flow to areas of the brain responsible for memory and higher levels of cognitive processing. These brain benefits resulted in dramatically better scores on cognitive tests when compared to a control group that stretched regularly but didn't get their blood pumping through aerobic exercise.

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Additionally, people with mild cognitive impairment who exercised vigorously and increased blood flow to the brain averaged 14 percent lower levels of tau proteins at the end of the study when compared to their tau levels before they began

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Aerobic exercise was also correlated with improvements in attention, planning, and organizing abilities associated with executive function. In [a statement to WFSM](#), Baker said,

“These findings are important because they strongly suggest a potent lifestyle intervention such as aerobic exercise can impact Alzheimer’s-related changes in the brain. No currently approved medication can rival these effects.”

From a public health perspective, the latest Finnish report on the neuroprotective benefits of sauna use is a potential game changer. Finding ways to self-motivate and inspire people to exercise regularly is always going to be a challenge. The good news is that sitting in a sauna takes much less effort and willpower than committing to a vigorous exercise regimen, especially as we age. For millions of people who struggle to motivate themselves to exercise regularly, sauna use might be a healthy alternative to hardcore workouts.

Interestingly, according to the World Health Organization exercise guidelines only about half of Finnish Men and a third of Finnish women between the ages of 18 and 65 meet the mini-

the sauna than doing physical exercise.

That said, the Finnish researchers who conducted the KIHDS study speculate that saunas may provide some cardiovascular conditioning because the high temperatures increase heart rates to similar levels as moderate aerobic exercise.

Sauna Use Can Complement Your Workout Routine

Although most experts agree that sauna bathing isn't necessarily a substitute for aerobic exercise, the latest evidence suggests that regular sauna use could be a lifestyle habit that improves cardiovascular health, benefits blood vessels, and reduces your risk of heart disease and stroke. Now, it appears that (much like aerobic exercise) frequent sauna use may also lower someone's risk of Alzheimer's disease and dementia.

If you are someone who views aerobic exercise as a disagreeable experience and avoids working out, joining a gym with a dry sauna could be a practical way to ease into a "Finnish-style" routine that includes less aerobic activity and more sauna bathing. *(As always, make sure to consult with your primary care physician before beginning any new exercise routine—including heat exposure in a sauna.)*

If you currently have access to a sauna at your health club or gym, why not incorporate a 15-minute post-workout stint of sauna bathing whenever time allows? Although the findings of the KIHDS study are correlative, sitting in a sauna is guaranteed to foster peace of mind and trigger the relaxation response of being in a tranquil environment.

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About the Author

Christopher Bergland is a retired ultra-endurance athlete turned science writer,