

The Unspoken Benefits of Sauna: The Next Longevity Hack

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Saunas are a Finnish tradition, that became popular across the world. An increasing number of studies have investigated if there are any beneficial health effects from regular sauna use. The question biohackers are hoping to answer is: can incorporating sauna use into your weekly routine increase your lifespan by decreasing cardiovascular and other health risks?

Biohacking sauna use

A 2018 review of 40 studies that documented the potential health benefits experienced by the 3,855 study participants who regularly used dry saunas. The reviewers found support in these studies that regular Finnish sauna bathing is associated with **decreased mortality and fewer cardiovascular events**. Important to note, that most studies were limited to small samples.

Limited studies also indicated that participants experienced benefits for other health issues, like arthritis, fibromyalgia, chronic fatigue syndrome. Moreover, a review included studies with athlete samples, which asserted that **sauna use may enhance exercise performance**.

What the studies did not reveal is the question longevity experts want answered the most — what are the cellular and molecular interactions that occur during regular sauna use that may decrease incident of disease and extend the

lifespan? We still do not completely understand the geroscience behind the sauna, making it difficult to predict its benefit for various groups.

The history of Finnish sauna

The sauna has been an **important part of Finnish culture for over 2,000 years**. The basic Finnish sauna was a type of steam bath located in a wood paneled room, created by throwing water over hot stones. An old Finnish proverb refers to saunas as “the poor man’s pharmacy.” For more than a thousand years, the sauna was a way for those who worked in the fields in Finland’s bone-chilling temperatures to wash and relax sore muscles.

In addition, **Finnish women often gave birth in saunas** because bacteria-resistant soot covered the sauna walls, making it the cleanest room in the house. The sauna was also used for purification ceremonies before Finns wed and to prepare the bodies of their loved ones for burial. The sauna was holy for many Finns, and they firmly believed regular sauna use was necessary to maintain their health.

Today in Finland, **there are currently 3.3 million saunas** in hotels, homes, sports centers, offices, mines, and ships for a population of 5.5 million. Saunas are even found in prisons for inmates to use once a week.

Types of saunas

Wood was the original heat source for saunas. Rocks would be heated, and water would be poured over them to create steam (lyoli). Modern saunas may now use electric or infrared heaters instead of wood.

There are **two major types of saunas**:

1. Traditional Finnish dry saunas
2. Far infrared saunas

The Finnish dry sauna

Dry saunas have a low humidity level of 10–20%. Depending on the location of the sauna, you can wear a towel or nothing at all. The wood fueled sauna exposes your body to a temperature of 176–212 °F (80– 100 °C); electric heat saunas operate at a temperature of 158–212 °F (70–100 °C).

The Finnish sauna practice exposes your body to a high level of heat with low humidity for approximately 15 minutes. Your body's core temperature increases, while your body exerts energy trying to return to normal homeostasis. It is a cardiac workout. Finnish sauna users often spend 5 to 20 minutes in the sauna. They come out and rest for 20 to 30 minutes to cool down. They often repeat the cycle 1 to 5 times.

Much of the research on saunas and longevity has been conducted in Finland. One Finnish study found that those who were moderate sauna users (2–3 times per week) were 22% less likely to have a heart attack, and those who were **frequent sauna users (4–7 times per week) had a 63% less risk for a heart attack.**

The frequent user group were also 37% less likely to die prematurely.

Far infrared saunas

Far infrared saunas used in Japan have heating elements made from metal or ceramic to produce energy that is like natural sunlight. The **electromagnetic radiation warms your body directly**, not by warming the air in the room. Your core body temperature is raised by this infrared heat that penetrates into your tissue and causes sweating.

Studies have investigated the benefits of regular far infrared sauna, including **relaxation, decreased depression, and improved pain tolerance**, as well as protection against cardiovascular disease. However, more studies in humans are needed to draw sufficient conclusions.

Studies have not yet revealed sufficient evidence to determine whether any health differences exist between Finnish-style and infrared sauna use.

Body's response to sauna

Like exercise, **sauna use increases cardiac output** and pumps more oxygen-rich blood through the muscles and to the skin as your body temperature increases. As body temperature rises, more blood is sent to active skeletal muscles and the skin. From a cellular perspective, regular sauna use may decrease

blood pressure by decreasing stiffness in the arteries, dilating the blood vessels and lowering blood pressure and the overall workload on the heart.

What do studies show?

Much of the research focuses on data from Eastern Finland and small samples. Studies indicate that there are links between the dry sauna bathing and lower inflammation and cardiovascular issues.

Short periods of intense heat stress your heart in ways that strengthen the cardiovascular system with consistent sauna use. The heat makes your heart rate increase as if you were exercising, and increases circulation to cool your body. However, studies have not been conclusive whether sauna use is as effective in improving overall cardiovascular status as exercise.

Adverse effects

Sauna use is not without potential adverse effects, including:

- Inability to tolerate the heat
- Decreased blood pressure
- Dizziness
- Leg muscle pain

- Irritation to the airways
- Claustrophobia
- Burns

- Dehydration

You should get clearance from your doctor before you engage in regular sauna use due to the increase in heart rate that results.

Other individuals that should get medical clearance before using saunas are those who have low blood pressure or kidney disease or are taking medication that lowers the blood pressure, like diuretics or antihypertensives.

Safe sauna use

In order to safely benefit from the regular use of dry heat or far infrared saunas, you should **consult with your doctor if you are elderly or have risk factors** related to your blood pressure, heart rhythm, neuromuscular disease, are pregnant, or under age 18. You should hydrate before and after using the sauna.

Alcohol use should be avoided during sauna therapy, as it can lead to dehydration and a drop in blood pressure. It is recommended that you work up to a 20 or 30-minute session by doing 5 to 10 minutes the first few times you use the sauna.

Additional clinical studies are needed with respect to the long-term effects of regular sauna use. Further information is also needed on the geroscience of how the sauna affects the cardiovascular, immune, and neuromuscular systems at the cellular and molecular levels. Once this information is available, your doctor

can determine how to prescribe sauna therapy to help improve your overall health and lifespan.

Key takeaways:

- There are evidence-based studies that support the proposition that regular sauna use improves your cardiovascular health.
- There are not enough long-term studies that identify the cellular and molecular changes that occur in the body to prescribe sauna therapy to improve your cardiovascular health and extend your lifespan.
- Some groups such as the elderly, those with low blood pressure or medications that lower blood pressure, pregnant women, children, and the frail should obtain clearance from their doctor before using a sauna.

Resources:

1. Clinical Effects of Regular Dry Sauna Bathing: A Systematic Review.
2. Cardiovascular and Other Health Benefits of Sauna Bathing: A Review of the Evidence.
3. Sauna bathing is inversely associated with dementia and Alzheimer's disease in middle-aged Finnish men.

4. Effects of far-infrared sauna bathing on recovery from strength and endurance training sessions in men.
 5. Finnish Sauna: relaxation, health and connecting with nature.
 6. Heat therapy: mechanistic underpinnings and applications to cardiovascular health.
 7. Effects of regular sauna bathing in conjunction with exercise on cardiovascular function: a multi-arm, randomized controlled trial.
 8. Association Between Sauna Bathing and Fatal Cardiovascular and All-Cause Mortality Events
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