

## SAUNA-REGULAR USE LINKED TO LONGEVITY

In Finland, almost every household has a sauna. Now sales are growing strongly in the US, where more than a million units have been sold to health-conscious Americans. And who can blame them? Not only does this relaxing activity exercise the heart, give you more youthful looking skin and make you feel good, but a regular **sauna** reduces the risk of chronic disease and adds years to your life. Here's the evidence. . .

### Lowers Death Rate By 40%

The body responds to the heat stress produced in the sauna room by increasing the heart rate, just as it would if you were engaged in moderate exercise.

This no-effort cardio workout dilates blood vessels, improves blood pressure, supports the health of the endothelium – the inner lining of blood vessels – and enhances peripheral circulation.<sup>1</sup>

In a study of more than 2000 middle-aged Finnish men conducted over a period of 20 years, researchers found those taking four to seven sauna sessions a week *halved* the risk of dying of heart disease and enjoyed a 40% reduced risk of dying from any cause, compared to those bathing for just one session a week. The authors concluded that “sauna bathing is a recommendable health habit.”<sup>2</sup>

### Boosts Heat Shock Proteins

Heat stress not only benefits the cardiovascular system, it also activates genes that increase production of heat shock proteins. These molecules carry out essential functions inside the cell.

One of them is to maintain the structure (folding) of cellular proteins so they can carry out their normal activities. Faulty protein folding can lead to many disease processes.

Even worse, damage from free radicals cause these proteins to clump together and create further damage. This clustering of proteins has been linked to neurodegenerative diseases such as Alzheimer's, and contributes to aging.

Heat stress from regular saunas can repair proteins inside the cell, prevent clumping and lower health risks.<sup>3</sup>

Heat stress also activates FOXO3.

## FOXO3 – The Anti-Aging Master Gene

FOXO3 is a gene that's associated with human longevity. It regulates many other genes that help you withstand and recover from the kind of biological stresses that come with aging.

This master gene increases the expression of other genes that make DNA repair enzymes, thus preventing the kind of damage that could lead to cancer. FOXO3 also increases the body's own production of antioxidants to fight free radicals, and improves the function of the immune system.

FOXO3 also increases the expression of genes that cause senescent cells to self-destruct.<sup>3</sup>

Senescent cells (also known as zombie cells) are damaged cells that no longer grow or carry out their functions. They spew out harmful chemicals that injure other cells, creating more zombies like themselves.

Eventually senescent cells accumulate, damaging organs and tissues. They're linked to heart disease, type 2 diabetes, osteoarthritis and cancer.

Extolling the virtues of saunas, Sara Gottfried, M.D., board-certified gynecologist and anti-aging author, states that with such huge benefits, "You won't be surprised to learn that when you make more FOXO3, you triple your chance of living to one hundred."<sup>4</sup>

If you'd like to be part of this growing health trend, there are many options to choose from: Steam or dry heat saunas (radiant heat), wood stove or electric, indoor or outdoor, infrared and far infrared. The latter don't achieve the same high temperatures as radiant heat varieties but their heat reportedly penetrates the body to a greater extent and confers more health benefits.

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1. <https://www.ncbi.nlm.nih.gov/pubmed/21951023>
  2. <http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2130724>
  3. <https://www.foundmyfitness.com/reports/sauna-longevity.pdf>
  4. Younger by Dr Sara Gottfried, Vermilion, March, 2017