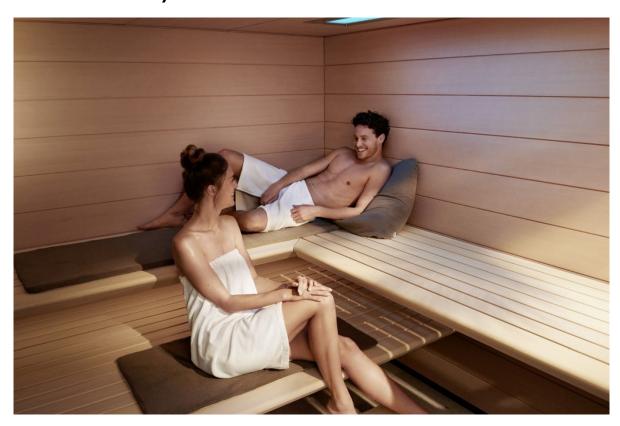


# Regular sauna users strengthen their immune system ... ... and also defy the cold better.



\_ 60 °C

- 90 °C

\_ 40 °C

What could be better than a wonderful walk through the autumnal forest and then relaxing cosily in the sauna? While enjoying the warmth, the body recharges its batteries and the immune system in particular prepares itself for the tasks ahead in autumn and winter. If you go to the sauna regularly and expose your body to temperature stimuli, you train your heat and cold regulation - your defences are activated and the risk of infection is minimised. In addition, regular sauna users have been shown to cope better with cooler temperatures, whether in the office or at home.



#### Strength lies in calmness

The cold season is upon us and with it the high season for colds, sniffles, influenza and corona viruses. For two years, strict hygiene regulations were just as much a part of everyday life as wearing masks, disinfection and keeping your distance. The new start is all the more difficult for the immune system, which is literally out of practice. Sauna baths ensure that all parts of the body are supplied with blood and plenty of nutrients. At the same time, metabolic waste products are flushed out, and finally yet importantly, the immune system is trained.

"Besides another wave of illnesses with the Covid 19 virus, many people are also concerned about the current energy crisis. Whether, for example, the room temperatures in offices or other rooms will be generally lower," says Philip Rock, Managing Director at KLAFS. The decision to have one's own sauna at home is both a good investment in the well-being of the whole family and in preventive health care.

Regular saunas promote the body's ability to adapt to cold, to a cooler environment. "This means that we soon feel just as comfortable even at a slightly lower room temperature," the managing director knows, for example, from studies by Prof. Dr. med. Karl-Ludwig Resch of the German Institute for Health Research in Hof/Saale.

### Workout for the immune system

We know that physical training is important for muscle building and health. But how do you actively build up the fitness of the immune system? Professor Karl-Ludwig Resch has been researching the topic of "sauna bathing, heat and cold regulation" for many years. He comes to the conclusion: "Regular sauna bathing leads to the body being able to successfully fight

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off at least half of all infections after just a few months." A look at the biological processes explains why this is so.

# Warmth as a protective shield

When exposed to strong heat, the human body tries on the one hand to dissipate the heat and cool the skin. The blood vessels are dilated, the heart pumps faster, and the small blood vessels under the skin dissipate the heat, just like in a car engine cooling system. If a certain tolerance threshold is exceeded, a second cooling system is activated: the skin secretes sweat, which evaporates. This creates cold, which now cools the blood in the capillaries. But the body itself also uses heat as a defence against threats such as infections, as the doctor and scientist explains: "Like a turbo, heat acts on many catalysts in the body and makes many metabolic processes run much faster. The body produces special messenger substances, 'free radicals' and 'heat shock proteins' with increased heat. These act as a kind of 'sparring partner' for the immune system, which is why regular sauna sessions are highly effective in improving the fitness and power of the immune system".

#### Heat adaptation

People adapt to rising temperatures: Studies have shown that with longer-term changes in the ambient temperature or even with short repetitions, such as regular sauna bathing, the stress level decreases and sweat production starts more quickly. This adaptation leads to a significantly increased heat tolerance and more efficient thermoregulation in dry heat, such as in the sauna.

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#### Cold adaptation

When it is cold, on the other hand, the body must try to counteract the loss of heat and the associated threat of cooling. However, humans have largely lost the ability to do this in the course of their evolution, which is also due to the increasing use of insulating clothing. The body first tries to compensate for heat loss by reducing the blood flow to the skin - a visible sign: goose bumps. If this is not enough, shivering follows as an expression of increased muscle activity.

## The sauna bath: positive effect on the fitness of the body

Whether warm or low temperatures - the body gets used to both extreme situations with repeated exposure and regulates itself.

Prof. Dr. med. Karl-Ludwig Resch: "Studies on sauna bathing in particular, which typically always consists of a balanced combination of heat stimulus and cold stimulus, have proven that the vegetative regulation of heat and cold is trained and that this also increases the fitness of the immune system."

Regular saunas therefore not only promote strong immune forces, but also the ability of the body to adapt to cold, to a cooler environment. People feel comfortable even at somewhat lower room temperatures - sauna-goers can look forward to the coming winter as thoroughly relaxed.

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# Caption:

What could be better than a wonderful walk through the autumnal forest and then relaxing comfortably in the sauna? While you enjoy the warmth, your body recharges its batteries.



— 90 °C

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