

TYLÖ



LET'S TALK ABOUT

INFRARED SAUNA

INFRARED RADIATION

BASICS AND BENEFITS

Infrared radiation is a form of heat energy that is safe and can be therapeutic for our bodies. Unlike harmful types of radiation, such as ionizing radiation which can damage cells, infrared radiation is non-ionizing and primarily generates heat.

Within the world of infrared, or IR, we at Tylö focus on the **far infrared range**, characterized by **longer wavelengths**. These longer wavelengths are especially good at carrying heat to the body, promoting relaxation, and causing sweating. Our goal is to optimize the sauna experience by targeting the vital range (the vital range refers to a specific wavelength range of infrared radiation that is most effective for interacting with the human skin) of human skin, typically **between 7 to 14 micrometers in wavelength**.



HOW INFRARED SAUNAS WORK

Infrared saunas use special panels to emit heat directly onto our skin. This heat goes into our body tissues, making us feel relaxed and can help us feel better in general. Unlike traditional saunas, which heat the air around us, infrared saunas heat our bodies directly. This can make them more efficient and comfortable for many people.

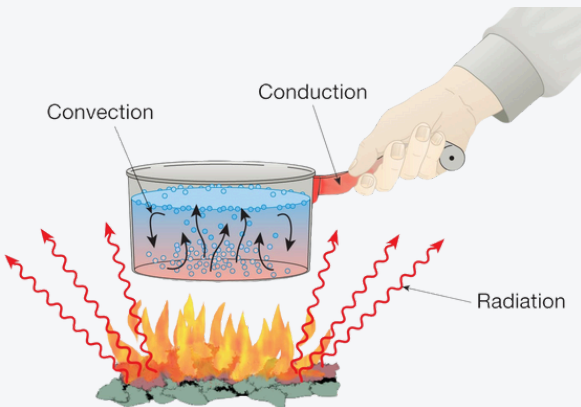


UNDERSTANDING HEAT TRANSFER MECHANISMS

To understand how infrared saunas work, it's helpful to know about heat transfer. Heat transfer occurs through three mechanisms: conduction, convection, and radiation. **Conduction** involves the direct transfer of heat between two solid materials through physical contact. In contrast, **convection** involves the transfer of heat through the circulation of fluids, such as air or water. However, it is **radiation** that plays a central role in infrared saunas. Unlike conduction and convection, which are limited by physical barriers, radiation transcends barriers and can penetrate materials and vacuum. Infrared radiation emitted by the infrared sauna panels is absorbed by the body, leading to an increase in temperature and the promotion of sweating and relaxation.

TO EXPLAIN THIS IN EASIER TERMS

You could say that infrared saunas mostly use waves to make us feel warm. These waves, called infrared waves, are a form of radiation that can pass through the air and penetrate our skin. Once they reach our body tissues, they're absorbed and converted into heat, making us feel warm and relaxed.



SAFETY CONSIDERATIONS: ELECTROMAGNETIC FIELDS (EMF)

EMF is a type of radiation that comes from electrical devices, like refrigerators, smartphones, laptops and washing machines. While some types of EMF can be harmful, the EMF emitted by our infrared saunas is very low and not considered dangerous.

When it comes to radiation safety, it's crucial to differentiate between ionizing and non-ionizing radiation. While ionizing radiation poses risks due to its high energy levels, non-ionizing radiation like infrared radiation is generally safe and primarily produces heat. Our infrared saunas follow strict safety standards to ensure that exposure to electromagnetic fields (EMF) is kept well below safety limits, minimizing any potential risks.



BENEFITS OF INFRARED SAUNAS

Infrared saunas can help us relax, improve our circulation, and even detoxify our bodies. They're a great way to feel better and take care of ourselves. Many people find that using an infrared sauna regularly helps them sleep better, reduces stress, and relieves muscle pain. Some studies have also shown that infrared saunas may help improve cardiovascular health and boost the immune system. *

Read more about infrared sauna benefits at:

tylo.com/blog/infrared-sauna-benefits

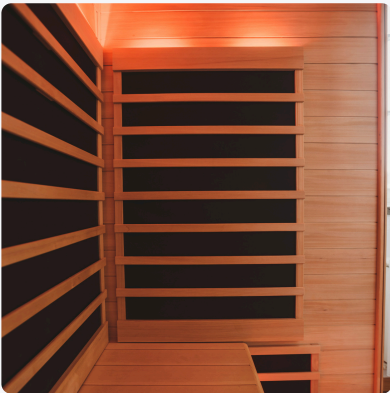


* Cardiovascular and Other Health Benefits of Sauna Bathing: A Review of the Evidence
Jari A Laukkanen 1, Tanjaniina Laukkanen 2, Setor K Kunutsor 3
<https://pubmed.ncbi.nlm.nih.gov/30077204/>

CONCLUSION

EMBRACING THE POWER OF INFRARED

As we finish our guide, we encourage you to try out an infrared sauna for yourself. They're safe, easy to use, and can make a difference in how you feel. Whether you're looking to relax after a long day or improve your overall health and well-being, an infrared sauna could be just what you need.



TYLÖ

REDEFINING WELLNESS