

Saunas

* Shelton Chiropractic / Wise Healings by Design *

July 2018 Newsletter

Saunas: what they can do for your health!

Saunas have historically been a strategy used in Eastern European, Asian and Scandinavian cultures for relaxation and detoxifications. Athletes are using extreme heat of saunas for more than just post-workout stress reduction and relaxation. Increasing the body's core temperature actually offers conditioning that may improve athletic performance by increasing endurance.¹

Exposure to extreme temperatures also has a beneficial effect on mitochondrial functioning, the minute powerhouses in your cells that provide your body with the energy required to function. The key to continued energy production is to remove old and worn-out ones and generate new mitochondria, a process known as biogenesis.

Researchers had previously determined that exposure to extreme heat can help reduce the risk of cardiac death and high blood pressure. They have now identified the direct effect that sauna heat has on a vascular health, blood pressure and heart rate.²

The team of researchers publishing the current study also published data from a previous study that was purely observational and suggested sauna use improved health outcomes, including sudden cardiac death, fatal coronary heart disease and all-cause mortality.³ During the current study the team recruited 102 people and monitored the biological effects of sauna use immediately before and after a 30-minute session.⁴

Cardiovascular and blood-based biomarkers were measured in the participants to evaluate arterial stiffness and blood pressure.⁵ Data was collected immediately before and promptly after a single 30 minute session of 30 minutes in a sauna set to 164 degrees Fahrenheit and in between 10 and 20 percent humidity.

The participant's systolic and diastolic blood pressure measurements both decreased after the sauna session and carotid-femoral pulse velocity decreased, indicating beneficial effects on arterial stiffness.⁶ Dr. Jari Laukannen, the study's co-author and cardiologist at University of Eastern Finland, believes that while a sauna session does not give the same muscular benefits as exercise, the cardiovascular responses may be similar.⁷

Mitochondrial Function

The health of your mitochondria is vital to your life and in the prevention of chronic disease, they are found in nearly all the cells of your body except for skin and red blood cells. If all of your mitochondria were to simultaneously fail you would succumb to an immediate death. The mitochondria are responsible for apoptosis, or programmed cell death, without which cancer cells can freely replicate and grow.

As with most cells, your mitochondria are supported by some of the foods you eat and harmed by others. Nutrition is an essential factor in supporting the health and function of your mitochondria. The majority of humans who eat processed foods are burning carbohydrates as their primary fuel, actually can shut down the

July 2018 - Saunas 1

Provided by Shelton Chiropractic / Wise Healings by Design
(402) 334-1500 / (402) 290-4776

References for this newsletter as well as previous newsletters may be found on our website.

13931 Gold Circle Omaha, NE 68144
<https://wisehealingsbydesign.com/nutrition/>

body's ability to burn fat and support healthy mitochondria.

There are four strategies to help the body build or regenerate new mitochondria. Exercise, exposure to extreme heat or cold, intermittent fasting and certain supplements like resveratrol (which may be recommended based on blood test findings).

Exposure to sauna heat and exercise raise your body's core temperature, essentially creating a short burst of heat stress. Mild heat stress, as experienced in both exercise and sauna use, increases the expression of mitochondrial biogenesis regulatory genes.⁸

Additional Benefits of Sauna Use

In laboratory studies athletes who used saunas for three weeks (4 times per week) out-performed the control group by 32 percent when performing an endurance run to exhaustion and also decreased their 5k times by nearly 2%. The athletes also benefitted from an increase in RBC (red blood cell) production responsible for transporting oxygen to their cells.

Sauna has additional ancillary health benefits that include the production of growth hormone, necessary for bone, muscle growth and longevity factors. Left ventricular ejection fraction from the heart has also been a demonstrated benefit of sauna use.

Safety Precautions

The moderate use of a sauna is safe for most people, however if you are pregnant or have a heart condition it would be wise to gain clearance from your doctor first.

1. Stay Safe: by using the sauna with a friend so that if you were to experience a drop in blood pressure or severe dehydration you can be assisted.
2. Avoid alcohol: for many obvious reasons but heart effects, dehydration and sudden death are the highest likelihood options.
3. Prevent dehydration and mineral loss: increases the amount of fluid lost through sweating. It is important to replace the fluid with clean pure water and proper vitamin/mineral supplements.

All the information above cannot serve as a substitute for a full blood assessment in improving one's overall health and especially targeting specific aspects of detoxification.

Call our office today to find out which steps you can take next to get your body on the right track this summer!

References

1. Journal of Science and Medicine in Sport, 2007; 10(4):259
2. Journal of Human Hypertension, 2017;doi:10.1038/s41371-017-0008-z
3. Journal of the American Medical Association, 2015;175(4):542
- 4,5,8 Time Magazine, January 10, 2018
6. Hypertension, 2005;45:222
7. Journal of Applied Physiology, 2012;112(3):354

July 2018 - Saunas 3

Provided by Shelton Chiropractic / Wise Healings by Design
(402) 334-1500 / (402) 290-4776

13931 Gold Circle Omaha, NE 68144
<https://wisehealingsbydesign.com/nutrition/>

References for this newsletter as well as previous newsletters may be found on our website.

The information has not been evaluated by the FDA and is not intended to treat, cure, or prevent any disease.