**HealthScience , Laukannen & Laukannen**

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**Title: “Sauna bathing and cardiovascular health”**

**Abstract:**

This paper discusses general cardiovascular and other responses to heat stress, focusing on the effect of Finnish sauna bathing on cardiovascular health, dementia and Alzheimer's disease risk. The Kuopio Ischaemic Heart Disease Risk Factor Study (KIHD) involved 2300 middle-aged men living in the eastern part of Finland. We have reported that that frequent sauna bathing reduces the risk of memory diseases, sudden cardiac death, cardiovascular and all-cause mortality. Risk of hypertension also appears to be decreased by frequent sauna bathing. A recent experimental study with 100 participants also shows significant effect of sauna bathing on blood pressure and vascular function. Our results show decreases in pulse wave velocity, systolic blood pressure, diastolic blood pressure, mean arterial pressure, left ventricular ejection time and diastolic time immediately after a 30-minute sauna session. The precise mechanisms by which sauna bathing achieves these effects is unknown, but factors such as improved endothelial and microvascular function appear to be relevant. This paper summarizes our research and outlines future research directions.

**Keywords:** sauna bathing, cardiovascular diseases, blood pressure, vascular function