

# Visiting a sauna in a winter coat: Does inhaling of hot air reduce common cold symptoms? – A randomised controlled trial.

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## ABSTRACT

**Background:** Traditionally the local application of heat, e.g. hot fluids like hot tea or chicken soup, or even hot vapor is used to treat the symptoms of the common cold.

**Objective:** To compare the efficacy of local application of hot dry air vs dry air at room temperature in the throat of patients with newly acquired common cold using a symptom severity score.

**Methods:** In a randomised single blind controlled trial with a treatment duration of 3 days and a follow-up period of 4 days participants were randomised into a treatment group (inhalation of hot dry air within a hot sauna, dressed in a winter coat) and a control group (inhalation of dry air at room temperature within a hot sauna, also dressed in a winter coat). The primary outcome measure was the area under the curve based on a symptom severity score for common cold for day 2, 3, 5 and 7. Other outcome measures were the development of the symptom score over time, intake of medication against common cold, general ill feeling, and safety. For statistical analysis we used a generalised estimation equation (GEE) regression model with the treatment group, baseline values, and the patient's expectation as covariates.

**Results:** Of 289 possible participants screened 157 could be randomised into the two treatment groups (age  $32.0 \pm 10.2$  (mean $\pm$ sd); median 28 years, 59.2% female, verum group n=80, control group n=77). For the primary outcome no significant difference between verum vs control was observed (difference in symptom score area under the curve -3.9 (mean difference) [95% CI -9.7 to 1.9], P=0.189), as well as for the other outcome measures.

**Conclusion:** Inhaling of hot air in a sauna dressed in a winter coat seems not to have an impact on the symptom severity of common cold. Visiting a sauna in a winter coat might have an impact and could be evaluated in further studies.