

A Dissertation On
IMMEDIATE EFFECT OF HOT ARM AND FOOT BATH ON PULMONARY
FUNCTION IN HEALTHY INDIVIDUALS

Submitted by
Dr. D. DIVYA, B.N.Y.S (Reg. No. 461611003)

Under the guidance of
Prof. Dr. N. MANAVALAN, N.D. (OSM), M.A (G.T), M.Sc (Y&N), M.Phil,
P.G.D.Y, P.G.D.H.M, P.G.D.H.H

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ABSTRACT

Background & Objectives:

Naturopathy is an art and science of healthy living and a drugless system of healing based on well-founded philosophy .It is a system of man building in harmony with the constructive principles of Nature on physical, mental, moral and spiritual planes of living. Hydrotherapy is one of the most important interventions in naturopathy. Water used at various temperatures enhances blood flow, which is thought to help dissipate all chemicals and facilitate muscle relaxation. Among various techniques of hydrotherapy, the arm bath and foot bath are used to treat both local and systemic illness. This study aims to explain the physiological effects of hot arm and foot bath on pulmonary function in healthy individuals before applying them as therapy.

Methods:

A total of 60 healthy volunteers of both the genders, were recruited from Govt. yoga and naturopathy medical college & hospital, Chennai, Tamil nadu. Subjects were randomly assigned into two groups. Study group (n=30) and control group (n=30), after satisfying the inclusion criteria. Study group was given hot arm and foot bath, for 20 minutes. Control group on the other hand was advised to sit quietly for 20 minutes. Both groups were assessed at baseline and immediately after 20 minutes for FVC, PEF_R, FEV₁ and FEV₁/FVC%.

Results:

The study group showed significant improvement in the FVC ($p < 0.002$), PEF_R ($p < 0.04$), FEV₁ ($p < 0.03$), FEV₁/FVC% ($p < 0.001$) and FEF 25-75% ($p < 0.05$) as compared to that of control group.

Interpretation and conclusion:

Study group showed significant improvements in Forced vital capacity, peak expiratory flow rate, FEV₁ (Forced expiratory volume in 1 second) and FEV₁/FVC%. Hence, the immediate effect of hot arm and foot bath by healthy volunteers has shown a positive influence on the lung volumes and capacities.

Key words: Hydrotherapy, Arm and Foot bath, pulmonary function.