

Impact of different treatment of whole-body cryotherapy on circulatory parameters.

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Source

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Abstract

Cryotherapy is commonly used as a procedure to relieve pain symptoms, particularly in inflammatory diseases, injuries and overuse symptoms. A peculiar form of cold therapy or stimulation was proposed 30 years ago for the treatment of rheumatic diseases. The therapy consists in the exposure to very cold air in special cryochambers. The air is maintained at temperatures between -110 and -160°C. The treatment was named whole-body cryotherapy (WBC). It consists in a brief exposure to extreme cold in a temperature-controlled chamber. It is applied to relieve pain and inflammatory symptoms caused by numerous disorders, particularly those associated with rheumatic conditions, and it is recommended for the treatment of arthritis, fibromyalgia and ankylosing spondylitis. The aim of this study was to investigate the effects of different treatment of WBC on blood pressure (BP) and heart rate (HR) parameters in adult subjects characterized from non-pathological values of BP. Eighty subjects (36 females, 44 males, age range 19-80 years) submitted to 4-17 WBC applications for a total of 816 [treatments](#) were recruited. Immediately before and after each WBC application systolic and diastolic BP and HR were measured and recorded. We did not find significant differences in BP and HR ($p > 0.05$). WBC seems to be safe with respect to unwanted BP and HR alterations for adult patients. An individual monitoring of subjects is recommended over the treatment, but pathological changes of circulatory parameters can be considered rare and occasional.

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