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
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AQUATITAN™ lower body compression garment results in lower 200-m run timingsGovindasamy BALASEKARAN ¹ , Jolene Z. LIM ¹, Peggy BOEY ¹, Yew C. NG ¹, Visvasuresh V. GOVINDASWAMY ²¹ Human Bioenergetics Laboratory, Physical Education and Sports Science, Nanyang Technological University, Singapore; ² Concordia University Chicago, River Forest, IL, USA**HTML** **PDF**

BACKGROUND: AQUATITAN™ compression garments include titanium microparticles that are dissolved in high-function water before being bonded into the fabric. It is unknown if the addition of these particles can provide additional enhancement to sporting performance. The aim of this study was to investigate the effects of AQUATITAN™ lower body compression garment on 50-m, 200-m, and 3000-m running performances.

METHODS: Fifteen recreationally active participants from a university population participated in the study. Three blocks of experimental trials were performed with either AQUATITAN™ lower body compression garment (ATCG) or a placebo-matched compression garment (PCG). Participants performed submaximal and maximal treadmill tests, as well as three outdoor running time trials.

RESULTS: No significant differences were found in all physiological variables, 50-m, and 3000-m timings. However, magnitude-based inferences found likely higher lactate threshold (93.1%), velocity at lactate threshold (79.1%), $\dot{V}O_{2\max}$ (86.7%), TTE (94.2%), and RER_{max} (93.9%) values when wearing ATCG compared to PCG. ATCG also had a possibly lower 50-m (73.5%) and 3000-m (61.4%) timing compared to PCG. Significant difference was found ($P=0.01$) in 200m timings between ATCG and PCG. No significant differences were observed in muscle soreness and creatine kinase variables.

CONCLUSIONS: Performance benefits can be found in wearing AQUATITAN™ compression garment for 200m running events, and the ATCG may have possible advantages over other compression garments. Athletes seeking to gain a performance advantage where an immediate supply of anaerobic energy is needed may consider wearing the AQUATITAN™ lower body compression garment.

KEY WORDS: Athletic performance; Clothing; Running; Exercise; Athletes**JOURNAL TOOLS****eTOC**[To subscribe](#)[Submit an article](#)[Recommend to your librarian](#)**ARTICLE TOOLS**[Publication history](#)[Reprints](#)[Permissions](#)[Cite this article as](#)[Share](#)[top of page](#)

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