



THERMOSKIN®

The effect of wearing thermal medical support garments on muscle temperature, skin temperature, sweat rate and blood flow in healthy populations, at rest and during exercise

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Study Design – In a randomised order, *twelve* (6 males, 6 females) healthy participants (aged 27.1 ± 2.8 years old) were recruited to undergo two interventions, separated by 1 week, to investigate the effects of wearing *Thermoskin*[®] EXO™ medical support garments during exercise (*Visit 1*), and at rest (*Visit 2*), on skin and muscle temperature, local sweat rate, and blood flow. All procedures were conducted in the Environmental Exercise Laboratory (EEL) at Victoria University, under controlled environmental conditions (23 °C and 50 % relative humidity). Participants were screened against an exclusion criterion for pre-existing medical conditions which may have compromised their ability to partake in the project. Participants were provided with comprehensive information about the study after which they provided written informed consent to participate.

Assumption – increase in the skin and muscle temperature is a leading modality in the treatment of soft tissue injury and pain management and for the promotion of optimal muscle function

Aim – to assess how beneficial the *Thermoskin*[®] EXO™ support products are with changing the physiological state at certain points on the body e.g. back, knee, wrist and ankle.

Results:

At Rest

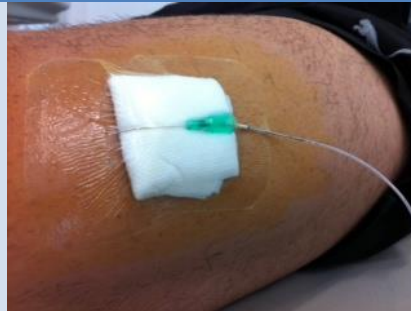


During Exercise*



*120 minutes of light cycling

- **Thermoskin® EXO™ support** affords statistically significant elevations in muscle temperature (~2.0°C) during rest, evident after 60 minutes of wearing the product

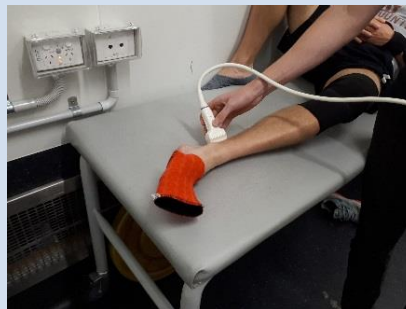


- **Thermoskin® EXO™ support** affords statistically significant increases in skin temperature (~1.1-~2.2°C) during rest, evident after 15-30 minutes of wearing the product



- **Thermoskin® EXO™ support** facilitated statistically significant increases in skin temperature (~1.9 to ~5.4°C), evident after 15 minutes of wearing the product during exercise

- **Thermoskin® EXO™ support** affords statistically significant increases in blood flow (+36%) during rest, evident at 120 minutes of wearing the product.



- **Thermoskin® EXO™ support** may result in higher blood flow If wearing the product for a longer duration >2 hours.

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