

報 文

## 冷えを感じやすい成人女性を対象とした加温衣服による 温熱生理機能補助の効果

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### The Thermoregulatory Assistance Effect of a Warming Garment on Adult Women Who Chill Easily

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#### Abstract

The purpose of this study was to clarify the effects of warming garments for adult women who are easily chilled. The study consisted of two experiments. In the first experiment, thermoregulatory response was compared between one woman who chilled easily and one who did not. An experiment to determine the recovery period from cold exposure was carried out once a month for a total of 11 times over one year. In the second experiment, a poncho-type garment that warmed the neck and whole back was created. Seven women who chilled easily wore the warming garment during the recovery period after cold exposure and the effects were measured. In the first experiment, the woman who chilled easily exhibited a larger decrease in peripheral skin temperature after cold exposure than the woman who did not chill easily, and did not recover to her original skin temperature during the recovery period. In the second experiment, wearing a warming garment enabled women who chilled easily to maintain an increase in peripheral skin temperature during the recovery period. At the end of the experiment, mean skin temperature was  $34.4 \pm 0.38^{\circ}\text{C}$  when the warming garment was worn and  $33.7 \pm 0.25^{\circ}\text{C}$  when it was not worn, and recovery rate of mean skin temperature was 102.9% when the warming garment was worn and 91.4% when it was not worn. Mean skin temperature was therefore significantly higher when the warming garment was worn. Warming garments may help women who are easily chilled to recover skin temperature to the same extent as women who do not chill easily.

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