

# AC DermaPeptide Warming PF *in vivo* Circulation Assay

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#### Abstract

AC DermaPeptide Warming PF is a *Capsicum frutescens* extract that is fermented with *Lactobacillus lactis*. The process is intended to create a capsaicinoid fraction that functions like capsaicin to increase circulation without causing irritation. This study is intended to quantitatively determine the ability of AC DermaPeptide Warming PF to enhance circulation.

#### **Materials and Methods**

A Periscan PIM II Perfusion Laser Dopper Imaging system was used to non-invasively determine an increase in dermal circulation. A 5-subject panel consisting of 5 Caucasian females between the ages of 32 and 43 was assembled and provided with two aqueous solutions, one containing 1% of the test material (AC DermaPeptide Warming PF, lot#: EN081024-C) and the other containing 3% of the test material. As a control, 1 and 3% solutions of a non-fermented capsicum extract were also applied.

Panelists were subjected to a dry down phase for 3 days prior to the study's commencement. The test area was located on the volar forearm region between the wrist and elbow. A gentian violet surgical skin marker and standard template delineated two 2cm by 2cm (4 cm<sup>2</sup>) test sites. Both test materials were applied at a concentration of 2.0 mg/cm<sup>2</sup> for three consecutive days.

Results

	1% Control	1% Variable	3% Control	3% Variable
Mean Blood Flow	2325	2651	2328	3004
Percent Increase	0	14	0	30



## **Mean Changes in Circulation**

### Discussion

The results indicate that AC DermaPeptide Warming PF effectively increases circulation. The control treatment of 1% nonfermented capsicum extract did not effectively increase circulation because it does not contain capsaicin, which is insoluble in water. The results support the hypothesis that the fermentation process creates a water-soluble functionally active capsaicinoid that is capable of increasing circulation.

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