



Low skin temperature impairs the cutaneous vasodilator response to local progressive pressure strain.

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Résumé en anglais	<p>A pressure-induced vasodilation (PIV) was recently reported as a putative protective response in human skin. Therefore, we examined the influence of skin temperatures on cutaneous blood flow responses to local progressive pressure strain. Ten healthy volunteers were studied at different ambient temperatures leading to low (29.0 +/- 0.3 degrees C), intermediate (32.6 +/- 0.1 degrees C), high (33.9 +/- 0.1 degrees C) and very high (36.0 +/- 0.1 degrees C) skin temperatures. We measured cutaneous blood flow using laser Doppler flowmetry on the foot in response to a local progressive pressure increase of 5.0 mm Hg min⁻¹. Progressive pressure strain led to an almost linear cutaneous laser Doppler flow decrease at both low and intermediate skin temperatures (-40.1 +/- 6.6% and -31.2 +/- 6.5% from baseline at 30 +/- 1.25 mm Hg), whereas at both high and very high skin temperatures, subjects responded with a transient cutaneous vasodilation (+33.6 +/- 10.6% and +50.6 +/- 15.4% from baseline at 30 +/- 1.25 mm Hg). These findings suggest that high skin temperatures are required for the PIV to develop.</p>
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Liens

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- [24] <http://okina.univ-angers.fr/publications/ua4166>
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- [26] <http://www.ncbi.nlm.nih.gov/pubmed/15020212?dopt=Abstract>

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