



## Impact of Experimental Conditions on Noncontact Laser Recordings in Microvascular Studies

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Résumé en anglais	<p>Microcirculation 19: 669-675, 2012. Abstract Microcirculation, especially skin microcirculation, is a window toward systemic vascular function in magnitude and underlying mechanisms. Different techniques have been developed to assess the microcirculation. Among these techniques, laser technology is used to perform noninvasive microvascular assessments. In the 1970s, the laser Doppler flowmetry (LDF) technique was proposed to monitor microvascular blood flow. More recently, noncontact technologies including laser Doppler perfusion imaging (LDI) and laser speckle contrast imaging (LSCI) have improved the reproducibility of the microcirculation measurements and facilitated some clinical evaluations such as on wounds and ulcers. However, due to the absence of contact between tissue and sensors, it is likely that different technical and environmental conditions may interfere with microvascular recordings. This review presents major technical and environmental conditions, which may interfere with noncontact laser recordings in microvascular studies.</p>
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