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**William R Fuller\*** ([w-fuller@onu.edu](mailto:w-fuller@onu.edu)), Department of Mathematics and Statistics, Ohio Northern University, 525 S Main St, Ada, OH 45810. *Modeling thermal propagation along vein walls in endovenous laser treatment.*

Laser ablation of the saphenous vein involves using laser-tipped probes to produce photothermal effects in the vein. In this study we consider the effects of laser-induced thermal heating and conduction on the vein wall. We formulate and solve the relevant two-dimensional heat conduction problem. The solution resolves an aspect of a controversy involving the physiological mechanism of the procedure. (Received September 22, 2011)