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## **Quantification of thermal asymmetry. Part 2: Application in low-back pain and sciatica.**

Sumio Uematsu, William R. Jankel, +4 authors D. Michael Long

Temperature differences between the lower extremities were measured using a computerized thermometric scanning system in order to compare the degree of thermal asymmetry in 144 patients with low-back pain. The patients displayed highly significant thermal asymmetries, with the involved limb being cooler ( $p$  less than 0.001). When asymmetries exceeded 1 standard deviation from the mean temperature of homologous regions measured in 90 normal control subjects, the positive predictive value of thermometry in detecting root impingement was 94.7% and the specificity was 87.5%. These values indicate that calculation of temperature asymmetry is particularly effective in evaluating reported pain in psychosocially affected patient populations in whom the chance of positive myelography or impaired root function is low. In this group of patients, thermometric study provides physicians with important information for proper decision making. The test can be performed to avoid more invasive and probably less revealing diagnostic or exploratory surgical procedures.