

Another way to detect lymphedema

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Credit: Markham Lymphatic Centre

Bioimpedance spectroscopy (BIS) is a noninvasive technology that measures the amount of fluid in a limb. It works by sending low level electrical current through the arm or leg and measuring the resistance to current (impedance).

In this way, BIS can detect lymphedema, swelling caused by a lymphatic system blockage that occurs in a fifth of patients following [breast cancer treatment](#).

Breast cancer treatment-related lymphedema (BCRL) has been detected effectively using dual-tab electrode BIS. Paula Donahue, DPT, MBA, and colleagues tested whether single-tab electrodes, which are significantly less expensive and readily available in most medical centers and outpatient clinics, can provide consistent BIS measurements in patients with BCRL and controls.

Reporting in the journal *Lymphatic Research and Biology*, they showed that single-tab electrodes provide similar results as dual-tab electrodes for BIS measurements when placement of the single-tab [electrode](#) is consistent with that of dual-tab electrodes.

More information: Paula M.C. Donahue et al. Implementation of Single-Tab Electrodes for Bioimpedance Spectroscopy Measures, *Lymphatic Research and Biology* (2019). [DOI: 10.1089/lrb.2019.0035](https://doi.org/10.1089/lrb.2019.0035)

Provided by Vanderbilt University

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