

Author(s): Joel Howell, M.D., Ph.D., 2009

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A History of the ECG
University of Michigan M1 Class, Fall 2008, Joel Howell

Machines

capillary electrometer
sphygmograph
string galvanometer
electrocardiogram machine

People and places

Willem Einthoven (1860 – 1927): The Netherlands (Leiden)
James Mackenzie (1853 – 1925): Scotland and England (London)
Thomas Lewis (1881 – 1945): England (London)
James Herrick (1861 – 1954): US (Chicago)
Frank Wilson (1890 – 1952): US (Ann Arbor)

Objectives:

- To help students understand the different leads now used to take an ECG
- To help students appreciate that specific technical changes in many parts of the ECG machine were necessary in order for it to become seen as an essential element of patient care
- To help students appreciate the important work done at the UM in the creation of today's ECG
- To show students that knowledge changes, even knowledge derived from technology, and how knowledge changes reflects social and cultural norms.
- To help students appreciate that even world-class experts can (and will) be wrong

For further reading:

George E. Burch and Nicholas P. DePasquale, with a new introduction by Joel D. Howell, *A History of Electrocardiography* (San Francisco: 1990).

Joel D. Howell, "Early perceptions of the electrocardiogram: From arrhythmia to infarction," *Bulletin of the History of Medicine* 58 (1984): 83-98.

Arthur Hollman, *Sir Thomas Lewis: Pioneer Cardiologist and Clinical Scientist* (London, 1997).