**THE PANTYHOSE PROJECT**

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*Introduction*: The original EKG “electrodes” were buckets of saline in which the hands and feet were placed, thereby establishing these sites for the placement of the more modern electrodes. Consequently, recording traditional office electrocardiograms in women wearing pantyhose, stockings, or long boots requires extensive undressing, considerable time and, particularly in the elderly, often provokes annoyance and embarrassment. This study was undertaken to determine whether alternatively placing leg electrodes on each side of the abdomen, to avoid the necessity of removing clothing, altered the cardiogram’s diagnostic potential.

*Method:* Paired electrocardiograms, one with standard ankle electrodes and the other with the abdominal electrodes, were recorded in 108 patients with a large variety of cardiological diagnoses. The EKG frontal plane axis was statistically compared between the paired tracings. Similarly, paired cardiograms with standard electrode placement were recorded in 39 patients and compared in inspiration and expiration.

*Results*: The only change of any magnitude was seen in the leads I, II, III and avF, accurately represented in the frontal plane axis, which demonstrated a statistically significant difference between the leg and abdomen tracings. However, this difference had a mean value of only -4 degrees (CI between -8.81 to -3.87); which is clinically inconsequential and even lower than the difference between the inspiration and expiration EKGs (13.42 degree, CI between-17.7 and -9.05), an issue that is irrelevant to clinical diagnoses. The interpretation of the “abdominal” EKG was never different from the “leg” EKG.

*Conclusion*: The lower abdomen instead of the leg electrode placement does not alter the diagnostic value of the EKG and, in fact, more closely fulfills Einthoven’s criteria. Abdominal electrodes can be used to obviate the need to bare the legs of patients wearing pantyhose or stockings to an office visit and are more convenient in all patients, whether the legs are covered or not.