TESTING THE ACCURACY OF ANEROID/ELECTRONIC DEVICES

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"Making Sure An Automatic Device Records Accurate Readings On Your Patient"

AHA Guidelines 2005: "Accurate measurement of blood pressure is essential to classify individuals, to ascertain blood pressure related-risk and to guide management. The auscultatory technique with a trained observer and mercury manometer continues to be the method of choice in the office." The oscillometric method can be used for office measurement, but only devices independently validated according to standard protocols should be used, and individual calibration is recommended" (1).

The simple design of the **mercury manometer** allows you to assess its accuracy by observation. If the mercury meniscus rests at zero with no pressure in the cuff and the column moves smoothly during inflation and deflation, it is accurate and can be used as the gold standard for pressure measurement. All other devices must be calibrated against a mercury standard at regular intervals. Commercial electronic calibration manometers (such as the NETECH DigiMano) must be returned to the manufacturer yearly for calibration against a mercury standard. It is important to remember that devices passing the validation protocols of the American Association of Medical Instrumentation (AAMI) may have systematic errors of more than 5 mm Hg for a substantial number of individuals in your practice.