

Dear Clinicians,

A common reflex reaction, in response to an automated office BP monitor reading of an alarmingly high BP, is that we (the healthcare provider) should repeat the measurement manually using our stethoscopes. Is there any evidence to back up that practice? The answer is NO. Actually, there is more evidence to the contrary! For brevity, I will stop at just three reasons for this argument.

If the automated office BP measurement has been performed in the appropriate fashion, with a well-maintained and validated device, what plausible reason would a manual measurement result in a lower reading? First, it is actually more plausible that the alarming experience of having a clinician ‘whip out’ his/her stethoscope because of a high machine reading will paradoxically result in an even higher measurement! The term for this recognized physiological response is the “alerting phenomenon”. The most plausible reason that a manual measurement may result in a lower BP would be that the patient has been finally allowed to sit quietly for the recommended 3-5 minutes.... but that is true whether the repeat measurement is automated or manual! Second, we have to consider human operator biases which describes the tendency to round-off BP readings; a phenomenon known as the “terminal digit bias”. Finally, when blood pressures are truly severely elevated there is a higher probability of falling foul to the physiological entity known as the “auscultatory gap”. This can also result in a significant under-estimation of the systolic BP. In summary, there are very limited valid reasons to feel the need to perform a manual blood pressure measurement to confirm an elevated machine reading. In this case, the machines win!

We welcome your feedback and look forward to hearing from you – please send us your comments and questions!

If you have specific questions related to hypertension management in your patients, Dr. Williams can be reached by email at [Stephen.Williams@nyumc.org](mailto:Stephen.Williams@nyumc.org) or by phone at 646-320-8075 (cell).

THE BP VISIT PROJECT TEAM  
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