Blood Pressure and Physical Activity: Time to Move (On)

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To the Editor: In their article, "Blood Pressure Circadian Pattern and Physical Exercise Assessment by Accelerometer and 7-Day Physical Activity Recall Scale," Garcia-Ortiz *et al*. report that physical activity recorded as counts per minute with an accelerometer was associated with the dipper pattern in a cohort of healthy participants.[1] This study merits several comments. The interest in the relation of physical activity with 24-hour blood pressure is not new.[2] Using a similar design but a different accelerometer and an arm ambulatory blood pressure monitoring device instead of a wrist device, we have previously reported similar association between step count and systolic dipping in a smaller cohort that included mainly (60%) hypertensive participants.[3] In our study, however, most of the effect was driven by hypertensive participants. Although the authors have taken into account the use of antihypertensive drugs in their model, adjustments for the hypertensive status or the level of 24-hour blood pressure have not been reported. These variables are important confounders that might have affected the results. Additionally, the authors did not describe how daytime and nighttime ambulatory blood pressure monitoring were defined. Defining these periods (diary, activity, and fixed period) is recommended by guidelines and may influence the results.[4,5] Finally, we believe that in the era of "quantified self" or "lifelogging" when technology outspeeds medical evidence, physical activity should be reported in units, such as steps or kilocalories that are understandable for both the patients and the physician. This will possibly help to set understandable targets, which should help our patients increase their physical activity level.

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DISCLOSURE

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