



Schweizerische Hypertonie-Gesellschaft  
Société Suisse d'Hypertension  
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Swiss Society of Hypertension

### **Hot from the hypertensive press**

*Short analysis of clinical studies that may change our practices in the field of hypertension*  
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### **Hop Suisse !**

The Swiss Hypertension Society recently released advice for patients on the importance of acquiring validated device for home blood pressure measurement.

A validation study, conducted in Switzerland (Lausanne University Hospital), on a wrist bracelet (cuffless device) from a Swiss start-up (Aktiia SA, Neuchâtel) has been published in the Blood Pressure Monitoring Journal.<sup>1</sup> Using a modified ISO81060-2:2013 standard adapted for a cuffless device, the authors showed that the overall accuracy was within the standards in a population aged between 21 and 65 with varying skin pigmentations and hair follicle densities. After initial calibration, the accuracy persisted for one month. The bracelet measures optical photo-plethysmographic signals on the wrist and to calculate systolic BP (SBP) and diastolic BP (DBP) values using pulse wave analysis technique. As such, it is able to measure blood pressure intermittently during 24 hours for days until a new calibration is performed (once per month).

The validation of a cuffless device is a possible turning point in the way blood pressure is measured. The association of blood pressure values issued from a cuffless device with target organ damage and cardiovascular events will be interesting to follow in the near future.

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#### References:

1. Vybornova A, Polychronopoulou E, Wurzner-Ghajarzadeh A, Fallet S, Sola J, Wuerzner G. Blood pressure from the optical Aktiia Bracelet: a 1-month validation study using an extended ISO81060-2 protocol adapted for a cuffless wrist device. *Blood Pressure Monitoring* 2021; doi: 10.1097/MBP.0000000000000531

[Blood pressure from the optical Aktiia Bracelet: a 1-month v... : Blood Pressure Monitoring \(lww.com\)](https://www.lww.com/Blood-Pressure-Monitoring/Full-Text/10.1097/MBP.0000000000000531)

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