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## Sagittal abdominal diameter predicts cardiovascular events

H.S. Kahn\*

CDC Mail Stop F-75, Division of Diabetes Translation, Centers for Disease Control and Prevention, 4770 Buford Highway, NE, Atlanta, GA 30341, USA

The May 2017 article by Radholm et al. on predicting cardiovascular events among diabetic adults in the CARDIPP Study [1] adds to growing evidence that the sagittal abdominal diameter (SAD, or “abdominal height”) measured by sliding-beam caliper can improve upon the waist circumference or body mass index as a marker of cardiometabolic risk. In their Discussion section, the authors described limitations to anthropometry, including the viewpoint that “the risk of inaccuracy is greater with a caliper than a tape measure”. The nutrition review article they cited for this opinion, however, was commenting about calipers that are complex instruments, notably the spring-loaded calipers which are used to measure skinfolds [2]. The review referenced five earlier reports on problems with skinfold calipers, but provided no adverse information on sliding-beam calipers, as are used for SAD measurement, which are customarily of very simple design.

I agree with the Swedish authors that anthropometry may be limited by the indistinct points at which measurements are made. Their SAD measurement was made at the highest point of the abdomen, a location that differs from the protocol they cited from the US National Health and Nutrition Examination Survey (NHANES) [3]. If they had measured the SAD at the midpoint between the iliac crests, it would have corresponded with their citation. According to studies that compared alternative sites for SAD measurement, the NHANES protocol for SAD is likely to result in a stronger correlation with cardiometabolic risk factors [4,5].

Despite my minor criticisms above, the Swedish report on SAD as a predictor of cardiovascular events remains a worthwhile contribution. However, the clinical advantages of measuring the SAD might be even greater than the authors implied. If they have another opportunity to follow-up the CARDIPP Study participants they might consider evaluating also the SAD/height ratio (SADhR) as possibly a stronger indicator of cardiometabolic risk factors than the SAD without correction for height [6].

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\*Fax: +1 770 488 855. hkahn@cdc.gov.

**Conflict of interest**

None.

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