

# Lead shield reduces radiation exposure during catheterization

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(HealthDay)—Use of an accessory lead shield placed between the staff

member and the patient during cardiac catheterization can reduce radiation exposure among technologists and nurses, according to a study published online Nov. 1 in *JACC: Cardiovascular Interventions*.

Ryan D. Madder, M.D., from Frederik Meijer Heart & Vascular Institute in Grand Rapids, Michigan, and colleagues examined real-time [radiation exposure](#) data collected among nurses and technologists during 764 catheterizations. Standard [radiation](#) protection measures were used in Phase I (401 catheterizations), and standard radiation measures were combined with an accessory lead shield placed between the staff member and patient in Phase II (363 patients). The effective dose normalized to dose area product ( $E_{DAP}$ ) was the measure of radiation exposure.

The researchers found that use of an accessory lead shield in Phase II was correlated with a 62.5 and a 63.6 percent lower  $E_{DAP}$  per case among technologists and nurses, respectively. Accessory shielding remained independently associated with a lower  $E_{DAP}$  among both technologists and nurses in multivariate analysis (34.2 and 36.4 percent reductions, respectively).

"The relatively simple approach of using accessory lead shields to protect staff members during [cardiac catheterization](#) was associated with a nearly two-thirds reduction in radiation exposure among nurses and technologists," the authors write.

One author disclosed ties to Corindus Vascular Robotics, which partially funded the study.

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