

Ultrasound beats palpation for femoral artery catheterization

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(HealthDay)—For children undergoing heart surgery, real-time

ultrasound guidance is superior to a palpation technique for femoral artery catheterization, according to a study published online June 1 in *Pediatric Anesthesia*.

Sahar M. Siddik-Sayyid, M.D., from the American University of Beirut, and colleagues conducted a prospective study involving children undergoing [heart surgery](#). One hundred six patients were randomized to either a palpation group, where the [femoral artery](#) was cannulated using the traditional landmark method of palpation of arterial pulse, or to an ultrasound group, where cannulation was guided by real-time scanning with an [ultrasound probe](#).

The researchers found that the ultrasound group had a shorter time taken for attempted femoral artery cannulation ($P = 0.012$) and a lower number of attempts ($P = 0.003$) than the palpation group. The ultrasound group also had a higher number of successful cannulations on first attempt (odds ratio, 2.54; $P = 0.025$). Fifty-eight percent of patients in the palpation group and 75 percent in the ultrasound group had successful cannulations (odds ratio, 2.18; $P = 0.06$). At days one and three, none of the [patients](#) had adverse events.

"Ultrasound-guided femoral arterial cannulation in children when performed by anesthesia residents is superior to the palpation technique based on the reduction of the time taken for attempted cannulation and the number of attempts, and improvement in first attempt success," the authors write.

More information: [Abstract](#)
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