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Pre-op accelerometry can assess cardiopulmonary fitness

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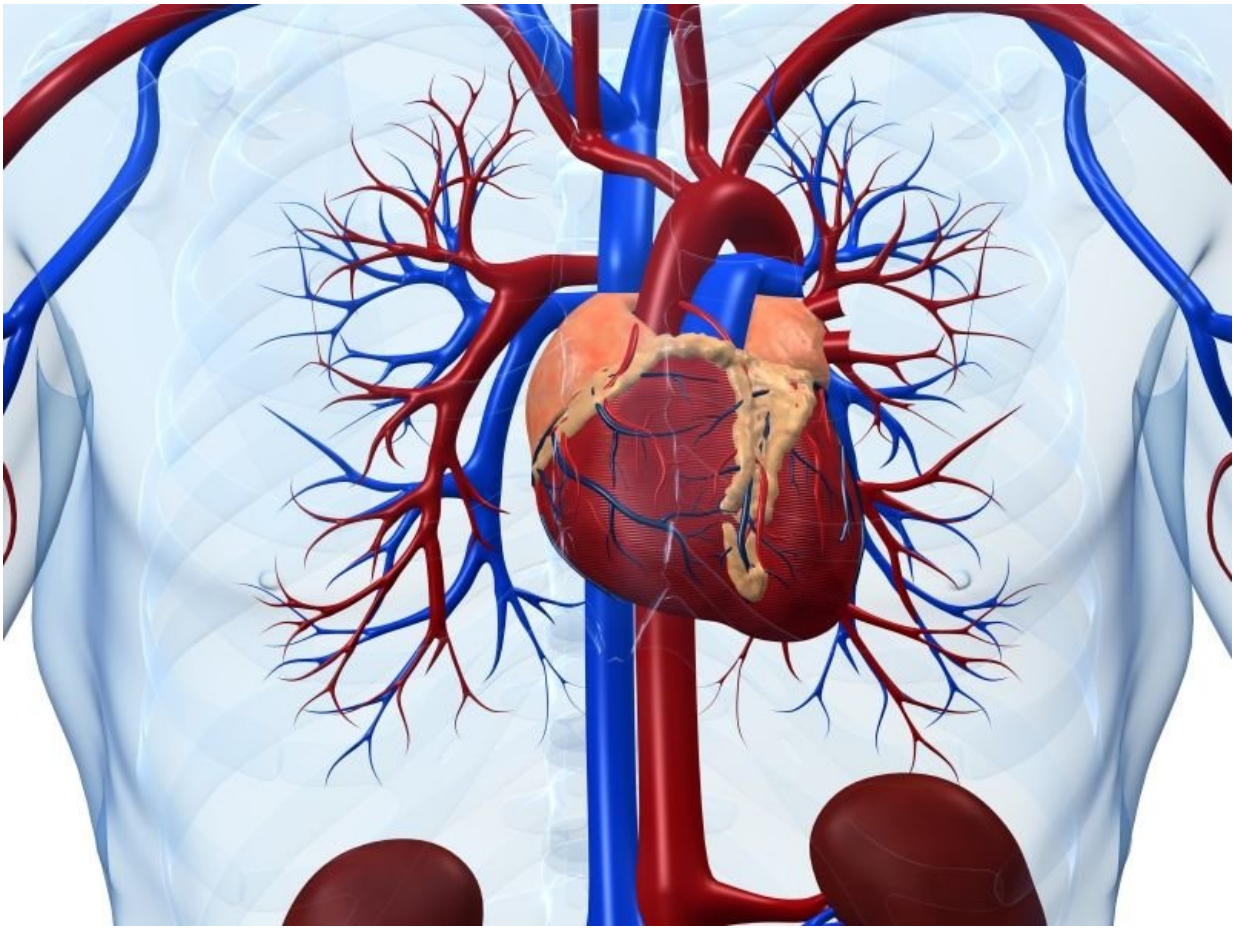

(HealthDay)—For patients scheduled for major surgery, preoperative

accelerometry can assess cardiopulmonary fitness and act as a supplement to formal cardiopulmonary exercise tests, according to a study published online Dec. 12 in *Anaesthesia*.

Helen W. Cui, B.M., B.S., from the University of Oxford in the United Kingdom, and colleagues examined the correlation between preoperative accelerometry and five cardiopulmonary exercise variables among 50 patients scheduled for major surgery. Participants underwent a standard preoperative exercise test and wore a chest-mounted triaxial accelerometer for a mean of 3.2 days.

The researchers observed significant correlations for the Duke Activity Score Index and six accelerometer variables with all five cardiopulmonary exercise variables: peak power, peak oxygen consumption, anaerobic threshold, and ventilatory equivalents for oxygen and carbon dioxide (Pearson correlation coefficients, 0.5 to 0.7).

"In summary, preoperative accelerometry is feasible and it is associated with fitness measured by cardiopulmonary exercise tests," the authors write. "We anticipate that longitudinal measures of daily activity will supplement formal cardiorespiratory fitness assessments before and after surgery."

Several authors disclosed financial ties to McLaren Applied Technologies.

More information: Abstract
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