

# Study confirms diagnostic accuracy of non-invasive technology for heart pain

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One-year follow-up results show that a newer, non-invasive technology to evaluate heart pain provided a reliable way to identify which patients had dangerous artery blockages, according to a study co-led by the Duke

Clinical Research Institute.

The findings, reported Sunday at the American College of Cardiology meeting, suggest that fractional flow reserve CT (FFR-CT) scans are effective in helping doctors determine which [patients](#) need more aggressive treatments.

"Our study shows that in [clinical practice](#), when new technology provides a negative result regarding the chance for a physiologically significant stenosis, the patient and physician should be reassured that the chances of major adverse cardiac events are low," said lead author Manesh Patel, M.D., chief of the Division of Cardiology at Duke University School of Medicine.

Patel and colleagues analyzed data from more than 5,000 patients who underwent FFR-CT scans for clinically suspected coronary artery disease. In patients with moderate-to-severe [coronary artery disease](#), a negative FFR-CT was associated with a low, one-year risk of a major cardiac event such as [heart attack](#) or death compared to patients with a positive FFR-CT.

Specifically, the researchers found that among those with an FFR-CT reading above 0.80, suggesting [blood flow](#) is not dangerously restricted, the cardiovascular death and heart attack risks were significantly lower, and revascularization was significantly lower (5.8 percent vs. 38.4 percent) and was unlikely after 90 days.

"This research, with one-year follow-up, suggests that an FFR-CT test can be trusted when used as it was in this real-world observational registry," Patel said. "And while we don't have perfect warranties in medicine, a negative FFR-CT result was seen to have low risk for a major heart event in the following year."

**More information:** ADVANCE Registry for FFR-CT. [www.cedars-sinai.org/programs/ ... registry-ffr-ct.html](http://www.cedars-sinai.org/programs/...registry-ffr-ct.html)

Provided by Duke University

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