

# CT: The first-line imaging choice of physicians for the diagnosis of pulmonary embolism

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Computed tomography (CT), a highly accurate, readily available medical imaging technique, is the overwhelmingly preferred technique of emergency physicians and radiologists for the diagnosis of pulmonary embolism (PE), according to a study in the January issue of the *American Journal of Roentgenology*.

PE, the formation of a blood clot in the lung, is a life-threatening condition that requires prompt diagnosis and treatment. Medical imaging techniques such as CT, lung scintigraphy, and [MRI](#) are currently available to physicians to diagnose PE. "The purpose of our study was to assess the diagnostic approach to PE practiced by emergency physicians and advised by radiologists," said Saurabh Jha, MD, lead author of the study.

Questionnaires were sent to emergency physicians and radiologists in Pennsylvania. The questions covered diagnostic strategies for the detection of PE. "Emergency physicians nearly uniformly (96 percent) chose CT as the preferred first-line investigation. They cited accuracy as one of the major determinants of their choice, followed by overall access to CT, availability of 24-hour interpretation, and capability for alternative diagnosis. Ninety percent of radiologists reported that the first-line medical imaging technique for excluding [pulmonary embolism](#) at their hospital was CT," said Jha.

"The results of our study indicate that by a large margin, both emergency physicians and radiologists prefer CT in the diagnosis of PE. In imaging of pregnant patients to whom [radiation](#) is of concern, approaches differed," he said.

"CT is the nearly universal first-line imaging choice for the diagnosis of PE. This is not surprising considering its accuracy is well established," said Jha.

Provided by American Roentgen Ray Society

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