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[American College of Radiology / American Roentgen Ray Society](#)

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

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.

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This study appears in the January issue of the American Journal of Roentgenology. For a copy of the full study, please contact Heather Curry via email at hcurry@acr-arrs.org or at 703-390-9822.

About ARRS

The American Roentgen Ray Society (ARRS) was founded in 1900 and is the oldest radiology society in the United States. Its monthly journal, the American Journal of Roentgenology, began publication in 1906. Radiologists from all over the world attend the ARRS annual meeting to participate in instructional courses, scientific paper presentations and scientific and commercial exhibits related to the field of radiology. The Society is named after the first Nobel Laureate in Physics, Wilhelm Röntgen, who discovered the x-ray in 1895.
