

Low-dose CT method, delivering 50 percent less radiation, correctly identifies patients with appendicitis

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Patients with possible appendicitis are typically evaluated using a standard-dose contrast enhanced CT, but a low-dose unenhanced CT that delivers approximately 50% less radiation is just as effective, according to a study performed at the Seoul National University College of Medicine in Seoul, Korea. The standard-dose enhanced CT scan delivers approximately 8.0 mSv of radiation; the low-dose unenhanced CT scan delivers approximately 4.2 mSv of radiation.

A total of 78 patients with appendicitis were all evaluated using both the standard-dose and low-dose methods. CT images were then reviewed by two separate radiologists. Radiologist number one was able to correctly identify appendicitis in 77/78 patients using the low-dose unenhanced method and in 78/78 using the standard-dose enhanced method. Radiologist number two was able to correctly identify appendicitis in all 78 patients using both methods.

"Considering the high incidence of appendicitis in the general population and the rapidly increasing use of CT, small individual risks applied to such an increasingly large population may create a public health issue in the future," said Kyoung Ho Lee, MD, lead author of the study.

"Low-dose unenhanced CT can potentially be used as the first line imaging test in [patients](#) suspected of having [appendicitis](#)," he said.

This study appears in the July issue of the *American Journal of Roentgenology*.

Source: American Roentgen Ray Society

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