

# Low-dose CT noninferior for diagnosing appendicitis

April 26 2012

---



(HealthDay) -- For young adults with suspected appendicitis, low-dose computed tomography (CT) is noninferior to standard-dose CT with respect to negative appendectomy rates, according to a study published in the April 26 issue of the *New England Journal of Medicine*.

Kyuseok Kim, M.D., from the Seoul National University College of Medicine in South Korea, and colleagues conducted a single-blind noninferiority trial for 891 patients with suspected appendicitis, aged 15 to 44 years. Participants were randomly allocated to low-dose CT (444 patients; median [radiation dose](#), 116 mGy/cm) or standard-dose CT (447 patients; median radiation dose, 521 mGy/cm). The rate of negative appendectomies was measured, with a noninferiority margin of 5.5 percent.

The researchers found that the negative appendectomy rate was 3.5 and 3.2 percent in the low-dose and standard-dose CT groups, respectively (difference, 0.3 percent). There were no significant between-group differences in the appendiceal perforation rate (26.5 percent for low-dose CT versus 23.3 percent for standard-dose CT;  $P = 0.46$ ) or in the proportion of patients who required additional imaging (3.2 and 1.6 percent, respectively;  $P = 0.09$ ).

"We found that the use of low-dose CT as the first-line imaging test was noninferior to standard-dose CT with respect to the negative appendectomy rate among [young adults](#) with suspected appendicitis," the authors write.

The study was supported by a grant from GE Healthcare Medical Diagnostics, Korea.

**More information:** [Full Text \(subscription or payment may be required\)](#)

Copyright © 2012 [HealthDay](#). All rights reserved.

Citation: Low-dose CT noninferior for diagnosing appendicitis (2012, April 26) retrieved 23 May 2024 from <https://medicalxpress.com/news/2012-04-low-dose-ct-noninferior-appendicitis.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--