

Colon cancer screening more effective earlier in day, study finds

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The effectiveness of a screening colonoscopy may depend on the time of day it is performed. According to a new UCLA study, early-morning colonoscopies yielded more polyps per patient than later screenings, and fewer polyps were found hour by hour as the day progressed.

The findings, published in the November issue of the journal *Clinical Gastroenterology and Hepatology*, point to the need for more research in this area to possibly improve outcomes for colonoscopy procedures. While the current study was done at a single institution, the clinical setup is much the same in other practice settings, the researchers said.

"Our research was conducted at an academic-affiliated facility that far exceeds published quality benchmarks for colonoscopy outcomes," said study author Dr. Brennan M.R. Spiegel, director of the UCLA/Veterans Affairs Center for Outcomes Research and Education. "So, if this is occurring at such a high-performing academic center, it is probably happening at other facilities across the country."

Spiegel noted that although this is a new area of research, other studies have reached similar conclusions, including recent research from the Cleveland Clinic published in the July issue of the *American Journal of Gastroenterology*.

A colonoscopy is the only test that allows the identification and removal of polyps from the entire colon. Studies have shown that polyp removal has been associated with a 60- to 90-percent reduction in colorectal

[cancer](#), which is the second leading cause of death in the United States.

"Successful colonoscopy procedures depend on a number of key patient, provider and procedural factors — and time of day may also be important as well," said Spiegel, who is an assistant professor of digestive diseases at the David Geffen School of Medicine at UCLA and the VA Greater Los Angeles Healthcare System.

During the study, researchers tracked 477 patients receiving colonoscopies over the course of one year at a single VA hospital. Researchers found that early-morning cases, started at 8:30 a.m. or earlier, yielded 27 percent more polyps — 0.19 more overall polyps and 0.17 more premalignant polyps — per patient than later cases. The amount of polyps discovered decreased hour by hour as the day progressed. This translates into less than a quarter of a polyp per patient, so the risk for individual patients is very low.

"Although individual patient risk is very low, multiplying this effect by thousands of patients across the United States could mean we're missing lots of polyps, some of which might turn into cancer one day," Spiegel said. "More research needs to be done at a wide range of centers to pinpoint why there's a decrease in the number of polyps found later in the day and to identify ways we might improve outcomes."

Spiegel added that colonoscopy remains a highly effective means of screening for colon cancer whatever the time of day and warned against patients insisting on being the first case of the day.

"The impact of appointment time for any individual patient is very, very small," he said. "Patients should feel confident that [colonoscopy](#) is helpful regardless of time of day and should be more focused on the quality and experience of their doctor rather than the time of their appointment."

The study authors noted that these findings were independent, after accounting for a number of demographic and clinical factors, including age, gender and history of polyps or cancer, as well as the skill level of the physician.

Researchers added that colonoscopies performed in the morning may have better results partly due to improved bowel preparation the night before, but that this didn't completely explain the overall study results.

Spiegel said that fatigue may play a role, as it does in other professions with prolonged and repetitive activities, like trucking, surgery and aviation.

"We may find that setting a cap on the duration of endoscopic work shifts or other types of adjustments may be helpful," he said.

Source: University of California - Los Angeles

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