

# At what age do patients no longer need colorectal cancer screening?

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## ■ EVIDENCE-BASED ANSWER

Good evidence supports fecal occult blood testing (FOBT) for patients up to age 75 (grade of recommendation: A, based on systematic review of randomized controlled trials). There is insufficient evidence to recommend for or against colorectal cancer (CRC) screening after age 75 (grade of recommendation: D, based on expert opinion). CRC screening may be discontinued between ages 75 and 80, preferably after at least 1 negative screening examination result. Unusually healthy individuals may choose to continue screening until a later age.

## ■ EVIDENCE SUMMARY

FOBT is the only CRC screening tool with evidence of efficacy from randomized controlled trials.<sup>1</sup> A meta-analysis of 4 trials showed that 1173 patients would need to be screened for 10 years on a biennial basis to prevent 1 death from CRC. The upper age limits of patients were 75,<sup>2</sup> 64,<sup>3</sup> 74,<sup>4</sup> and 80 years.<sup>5</sup> In the one study that included subjects to age 80, only 13% were older than 70 years. One case control study of FOBT showed a significant reduction in risk of mortality from CRC for individuals younger than 75 years, but not for patients older than 75; however, confidence intervals were wide.<sup>6</sup>

Evidence for screening with flexible sigmoidoscopy and colonoscopy comes primarily from case-control studies, and little information about appropriate upperage limits is available.<sup>7-9</sup> However, average time from onset of polyp to carcinoma is 10 to 15 years.<sup>10</sup> Furthermore, cancers, large polyps (>1 cm), or dysplastic polyps were not found in any patient examined a mean of 3.4 years after normal flexible sigmoidoscopy,<sup>11</sup> and subsequent cancer is a rare early event after endoscopy, even in patients who have had polyps removed.<sup>12</sup> This suggests the cessation of endoscopic screening would miss few cancers in the very old.

While CRC incidence approximately doubles with each decade from age 40 to 80,<sup>13</sup> the average life expectancy is 11.2 years at age 75 and 8.5 years at age 80.<sup>14</sup> Given the slow progression from polyp to carcinoma, such patients may not live long enough to achieve any screening benefits. Similar reasoning suggests that even high-risk patients (eg, those with a family history of CRC) with repeatedly normal endoscopic examination results may be able to discontinue screening between ages 75 and 80, unless they are unusually healthy.

Risks of screening include discomfort from endoscopic examinations and complications relating to the many false-positive results of FOBT (98% in Minnesota study).<sup>5</sup> A meta-analysis found that patients experience 1 perforation or hemorrhage for every 2.5 to 4.7 lives saved.<sup>1</sup> The risk of death is only about 1 in 50,000 for colonoscopy at the Mayo Clinic.<sup>15</sup> Other complications include worry, perforation, and complications of treatment.

## ■ RECOMMENDATIONS FROM OTHERS

The USPSTF, AAFP, American Gastroenterology Association, and the American Cancer Society recommend screening adults 50 years of age and older for colon cancer; none sets an upper limit.<sup>16-20</sup> The USPSTF specifically states, “the appropriate age to discontinue screening has not been determined.”<sup>16</sup> The American Geriatrics Society recommends that patients with short life expectancy or patients who could not undergo colonoscopy or barium enema plus sigmoidoscopy should not be screened.<sup>21</sup>

### CLINICAL COMMENTARY

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Knowing the average time from onset of polyp to carcinoma and the life expectancy at 75 and 80 years old is very helpful. This gives support to using endoscopy in addition to FOBT instead of FOBT alone, especially during the period before the cessation of routine screening. A negative sigmoidoscopy result would “insure” the next 3 to 5 years and colonoscopy the next 10 years. After explaining the benefits of screening, I tell my patients that when they complete a FOBT each year, they have a 10% to 40% chance of having a colonoscopy, and if they have this follow-up procedure, they have a 0.3% or less chance of having a perforation or hemorrhage as a complication.<sup>1-5</sup> Most of my patients older than 75 years choose not to continue screening.

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