

Practice Guidelines

Cancer Screening Recommendations from the ACS: A Summary of the 2017 Guidelines

Key Points for Practice

- The ACS recommends mammography starting at 45 years of age with annual screening until 54 years of age and biennial screening afterward.
- Vaccination against human papillomavirus infection should be given as a two-dose vaccine with a six- to 12-month interval in children who begin the series at nine through 14 years of age.
- Lung cancer screening with low-dose computed tomography should be performed in patients 55 through 74 years of age who meet the criteria based on smoking history and health status.

From the *AFP* Editors

Each year, the American Cancer Society (ACS) releases guidelines for health care professionals and patients on current cancer screening recommendations. The annual report updates previous recommendations, provides data on cancer screening rates, and discusses issues relating to early cancer detection. The 2017 guidelines cover screening recommendations for breast, cervical, colorectal, endometrial, lung, and prostate cancers (*Table 1*).

The ACS recommendations for cervical, colorectal, and breast cancer screenings are similar to those of the U.S. Preventive Services Task Force (USPSTF). Two notable differences include the recommended age to begin breast cancer screening and the preferred screening interval, with the ACS recommending a starting age of 45 years and annual screening until 54 years of age, with biennial screening afterward. This is in contrast to USPSTF's recommended starting age of 50 years and only biennial screening.

For vaccination against human papillomavirus infection to prevent several cancers and precancers, the ACS recommends a two-dose vaccine in children and adolescents who begin the series at nine through 14 years of age. The second dose should be administered six to 12 months after the first dose. Patients who do not initiate the series until 15 to 26 years of age, as well as persons who are immunocompromised, should continue to follow the three-dose schedule.

The ACS guidelines encourage clinicians to identify patients 55 through 74 years of age who are current or former smokers and who meet the criteria for low-dose computed tomography lung cancer screening based on pack-year history and general health status. This differs slightly from the USPSTF, which recommends stopping screening at 80 years of age. Of note, Medicare covers lung cancer screening with low-dose computed tomography for patients up to 77 years of age.

Although no organizations currently recommend screening for ovarian cancer in average-risk women, the U.K. Collaborative Trial of Ovarian Cancer Screening has demonstrated a promising approach with a multimodal screening strategy. This strategy involves annual cancer antigen 125 screening using a risk of ovarian cancer algorithm and transvaginal ultrasonography as a second-line test. However, additional follow-up is needed before any policy decisions can be made about the value of this strategy for ovarian cancer screening.

According to data from the National Health Interview Survey, the prevalence of colorectal cancer screening increased nearly 20% between

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This series is coordinated by Sumi Sexton, MD, Editor-in-Chief.

A collection of Practice Guidelines published in *AFP* is available at <http://www.aafp.org/afp/practguide>.

CME This clinical content conforms to AAFP criteria for continuing medical education (CME). See CME Quiz on page 167.

Author disclosure: No relevant financial affiliations.

TABLE 1

American Cancer Society Recommendations for the Early Detection of Cancer in Average-Risk Asymptomatic Adults*

Cancer type	Population	Test or procedure	Recommendation
Breast	Women, 40 to 54 years of age	Mammography	Women should undergo regular screening mammography starting at 45 years of age; women 45 to 54 years of age should be screened annually; women should have the opportunity to begin annual screening between 40 and 44 years of age
	Women, 55 years or older	Mammography	Women 55 years or older should transition to biennial screening or have the opportunity to continue screening annually; women should continue screening mammography as long as their overall health is good and they have a life expectancy of 10 years or more
Cervical	Women, 21 to 29 years of age	Pap test	Cervical cancer screening should begin at 21 years of age; for women 21 to 29 years of age, screening should be done every three years with conventional or liquid-based Pap tests
	Women, 30 to 65 years of age	Pap test and HPV DNA test	For women 30 to 65 years of age, screening should be done every five years with both the HPV test and the Pap test (preferred) or every three years with the Pap test alone (acceptable)
	Women, 66 years or older	Pap test and HPV DNA test	Women 66 years or older who have had three or more consecutive negative Pap tests or two or more consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring in the previous five years, should stop cervical cancer screening
	Women who have had a total hysterectomy	Pap test and HPV DNA test	Women who have had a total hysterectomy should stop cervical cancer screening
Colorectal	Men and women, 50 years or older, for all tests listed	Guaiac-based FOBT with at least 50% sensitivity for cancer, or fecal immunochemical test with at least 50% sensitivity for cancer <i>or</i>	Annual: Testing stool sampled from regular bowel movements with adherence to manufacturer's recommendation for collection techniques and number of samples is recommended; FOBT with the single stool sample collected on the clinician's fingertip during a digital rectal examination is not recommended; "throw in the toilet bowl" FOBTs also are not recommended; compared with guaiac-based tests for the detection of occult blood, immunochemical tests are more patient-friendly and are likely to be equal or better in sensitivity and specificity; there is no justification for repeating FOBT in response to an initial positive finding; patients should be referred for colonoscopy Every three years, per manufacturer's recommendation
		Multitarget stool DNA test† <i>or</i>	
		Flexible sigmoidoscopy† <i>or</i>	Every five years, flexible sigmoidoscopy can be performed alone, or consideration can be given to combining flexible sigmoidoscopy performed every five years with a highly sensitive FOBT or fecal immunochemical test performed annually
		Double-contrast barium enema† <i>or</i>	Every five years
		Colonoscopy <i>or</i>	Every 10 years
		CT colonography†	Every five years

continues

CT = computed tomography; FOBT = fecal occult blood test; HPV = human papillomavirus; Pap = Papanicolaou.

*—All individuals should become familiar with the potential benefits, limitations, and harms associated with cancer screening.

†—All positive test results must be followed up with colonoscopy.

TABLE 1 (continued)

American Cancer Society Recommendations for the Early Detection of Cancer in Average-Risk Asymptomatic Adults*

Cancer type	Population	Test or procedure	Recommendation
Endometrial	Women, at menopause	—	At the time of menopause, women should be informed about risks and symptoms of endometrial cancer and strongly encouraged to report any unexpected bleeding or spotting to their physicians
Lung	Current or former smokers 55 to 74 years of age in good health with at least a 30 pack-year history	Low-dose helical CT	Clinicians with access to high-volume, high-quality lung cancer screening and treatment centers should initiate a discussion about annual lung cancer screening with apparently healthy patients 55 to 74 years of age who have at least a 30 pack-year smoking history and who currently smoke or have quit within the past 15 years; a process of informed and shared decision making with a clinician related to the potential benefits, limitations, and harms associated with screening for lung cancer with low-dose CT should occur before any decision is made to initiate lung cancer screening; smoking-cessation counseling remains a high priority for clinical attention in discussions with current smokers, who should be informed of their continuing risk of lung cancer; screening should not be viewed as an alternative to smoking cessation
Prostate	Men, 50 years or older	Prostate-specific antigen test with or without digital rectal examination	Men who have at least a 10-year life expectancy should have an opportunity to make an informed decision with their clinician about whether to be screened for prostate cancer after receiving information about the potential benefits, risks, and uncertainties associated with prostate cancer screening; prostate cancer screening should not occur without an informed decision-making process

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2005 and 2015 as a result of the growing use of colonoscopy. Cervical cancer screening rates declined nearly 4% over the same period, and breast cancer screening rates have remained steady. Although rates of prostate cancer screening were stable between 2005 and 2010, there was an 18% decrease between 2010 and 2013, in addition to a decrease in the proportion of men who reported undergoing a routine prostate-specific antigen test in the previous year (from 38% in 2010 to 31% in 2013). Only 36% of men reported shared decision making for prostate cancer screening, and discussions often failed to fully address the risks and benefits. Because most available data on lung cancer screening were collected before organizations released their formal recommendations, more data are needed

to determine the rates of lung cancer screening with low-dose computed tomography.

Guideline source: American Cancer Society

Evidence rating system used? No

Systematic literature search described? No

Guideline developed by participants without relevant financial ties to industry? No

Recommendations based on patient-oriented outcomes? Yes

Published source: *CA Cancer J Clin.* March/April 2017;67(2):100-121

Available at: <http://onlinelibrary.wiley.com/doi/10.3322/caac.21392/abstract>

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