Cervical Cancer Screening Guidelines for Average-Risk Women [1]

	American Cancer Society (ACS), American Society for Colposcopy and Cervical Pathology (ASCCP), and American Society for Clinical Pathology (ASCP) [2] 2012	U.S. Preventive Services Task Force (USPSTF) [3] 2012	American College of Obstetricians and Gynecologists (ACOG) [4] 2012
When to start screening [5]	Age 21. Women aged <21 years should not be screened regardless of the age of sexual initiation or other risk factors. *(Strong recommendation)*	Age 21. *(A recommendation)* Recommend against screening women aged <21 years. *(D recommendation)*	Age 21 regardless of the age of onset of sexual activity. Women aged <21 years should not be screened regardless of age at sexual initiation and other behavior-related risk factors. *(Level A evidence)*
Statement about annual screening	Women of any age should not be screened annually by any screening method. *(Strong recommendation)*	Individuals and clinicians can use the annual Pap test screening visit as an opportunity to discuss other health problems and preventive measures. Individuals, clinicians, and health systems should seek effective ways to facilitate the receipt of recommended preventive services at intervals that are beneficial to the patient. Efforts also should be made to ensure that individuals are able to seek care for additional health concerns as they present.	In women aged 30–65 years, annual cervical cancer screening should not be performed. *(Level A evidence)* Patients should be counseled that annual well-woman visits are recommended even if cervical cancer screening is not performed at each visit.
Screening method and intervals [6]			
Cytology (conventional or liquid based) — 21-29 years of age	Every 3 years. [7] *(Strong recommendation)*	Every 3 years. *(A recommendation)*	Every 3 years. *(Level A evidence)*
Cytology (conventional or liquid based) — 30-65 years of age	Every 3 years. [7] *(Strong recommendation)*	Every 3 years. *(A recommendation)*	Every 3 years. *(Level A evidence)*
HPV co-test (cytology + HPV test administered together) — 21-29 years of age	HPV co-testing should not be used for women aged <30 years.	Recommend against HPV co-testing women aged <30 years. (D recommendation)	HPV co-testing [8] should not be performed in women aged < 30 years. *(Level A evidence*)
HPV co-test (cytology + HPV test administered together) — 30-65 years of age	Every 5 years *(Strong recommendation)* ; this is the preferred method *(Weak recommendation)* .	For women who want to extend their screening interval, HPV co-testing every 5 years is an option. (A recommendation)	Every 5 years; this is the preferred method. *(Level A evidence)*
Primary HPV testing [9]	For women aged 30-65 years, screening by HPV testing alone is not recommended in most clinical settings. *(Weak recommendation)* [10]	Recommend against screening for cervical cancer with HPV testing (alone or in combination with cytology) in women aged <30 years. *(D recommendation)*	Not addressed.
When to stop screening	Aged >65 years with adequate screening history. [11,12]	Aged >65 years with adequate screening history. *(D recommendation)* [11]	Aged >65 years with adequate screening history [11, 13] *(Level A evidence)*
Screening post-hysterectomy	Women who have had a total hysterectomy (removal of the uterus and cervix) should stop screening. [14] Women who have had a supra-cervical hysterectomy (cervix intact) should continue screening according to guidelines. *(Strong recommendation)*	Recommend against screening in women who have had a hysterectomy (removal of the cervix). [13] *(D recommendation)*	Women who have had a hysterectomy (removal of the cervix) should stop screening and not restart for any reason. [13] *(Level A evidence)* [15]
The need for a bimanual pelvic exam	Not addressed in 2012 guidelines but was addressed in 2002 ACS guidelines. [16]	Addressed in USPSTF ovarian cancer screening recommendations (draft). [17]	Addressed in 2012 well-woman visit recommendations.[18] **Aged <21 years**, no evidence supports the routine internal examination of the healthy, asymptomatic patient. An "external-only" genital examination is acceptable. **Aged ≥21 years**, no evidence supports or refutes the annual pelvic examination or speculum and bimanual examination. The decision whether or not to perform a complete pelvic examination should be a shared decision after a discussion between the patient and her health care provider. Annual examination of the external genitalia should continue.[19]
Screening among those immunized against HPV 16/18	Women at any age with a history of HPV vaccination should be screened according to the age specific recommendations for the general population.	The possibility that vaccination might reduce the need for screening with cytology alone or in combination with HPV testing is not established. Given these uncertainties, women who have been vaccinated should continue to be screened.	Women who have received the HPV vaccine should be screened according to the same guidelines as women who have not been vaccinated. *(Level C evidence)*

HPV = human papillomavirus; CIN = cervical intraepithelial neoplasia

[1] These recommendations do not apply to women who have received a diagnosis of a high-grade precancerous cervical lesion (CIN 2 or 3) or cervical cancer, women with in utero exposure to diethylstilbestrol, or women who are immunocompromised, or are HIV positive.

[2] Saslow D, Solomon D, Lawson HW, et al. American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology screening guidelines for the prevention and early detection of cervical cancer. CA Cancer J Clin. 2012 May-Jun;62(3):147-72. doi: 10.3322/caac.21139. Available at http://www.cancer.org/Cancer/CervicalCancer/DetailedGuide/cervical-cancer-prevention

[3] USPSTF. Screening for Cervical Cancer. 2012. Available at http://www.uspreventiveservicestaskforce.org/uspstf11/cervcancer/cervcancerrs.htm. These recommendations apply to women who have a cervix, regardless of sexual history.

[4] ACOG Practice Bulletin No. 131: Screening for Cervical Cancer. ACOG Committee on Practice Bulletins-Gynecology. *Obstet Gynecol.* 2012 Nov;120(5):1222-38. doi: http://10.1097/AOG.0b013e318277c92a

[5] Since cervical cancer is believed to be caused by sexually transmissible human papillomavirus infections, women who have not had sexual exposures (e.g., virgins) are likely at low risk. Women aged >21 years who have not engaged in sexual intercourse may not need a Pap test depending on circumstances. The decision should be made at the discretion of the women and her physician. Women who have had sex with women are still at risk of cervical cancer. 10-15% of women aged 21-24 years in the United States report no vaginal intercourse (Saraiya M, Martinez G, Glaser K, et al *Obstet Gynecol.* 2009 Dec;114(6):1213-9. doi: 10.1097/AOG.0b013e3181be3db4.). Providers should also be aware of instances of non-consensual sex among their patients.

[6] Conventional cytology and liquid-based cytology are equivalent regarding screening guidelines, and no distinction should be made by test when recommending next screening.

[7] There is insufficient evidence to support longer intervals in women aged 30-65 years, even with a screening history of consecutive negative cytology tests.

[8] All ACOG references to HPV testing are for high risk HPV testing only. Tests for low risk HPV should not be performed.

[9] Primary HPV testing (HPV testing alone) is defined as conducting the HPV test as the first screening test. It may be followed by other tests (like a Pap) for triage.

[10] No further explanation of which clinical settings HPV testing should be used to screen women aged 30-65 years as a stand alone test.

[11] Current guidelines define adequate screening as three consecutive negative cytology results or two consecutive negative co-tests within 10 years before cessation of screening, with the most recent test performed within 5 years, and are the same for ACS, ACOG, and USPSTF.

[12] Women aged >65 years with a history of CIN2, CIN3, or AIS should continue screening for at least 20 years after spontaneous regression or appropriate management. (Weak recommendation)

[13] And no history of CIN 2 or higher.

[14] Unless the hysterectomy was done as a treatment for cervical pre-cancer or cancer.

[15] Women should continue to be screened if they have had a total hysterectomy and have a history of CIN 2 or higher in the past 20 years or cervical cancer ever. Continued screening for 20 years is recommended in women who still have a cervix and a history of CIN 2 or higher. Therefore, screening with cytology alone every 3 years for 20 years after the initial post-treatment surveillance for women with a hysterectomy is reasonable. (Level B evidence)

[16] 2002 guidelines statement: The ACS and others should educate women, particularly teens and young women, that a pelvic exam does not equate to a cytology test and that women who may not need a cytology test still need regular health care visits including gynecologic care. Women should discuss the need for pelvic exams with their providers. Saslow D, Runowicz CD, Solomon D, et al. American Cancer Society Guideline for the Early Detection of Cervical Neoplasia and Cancer. *CA Cancer J Clin* 2002; 52: 342-362.

[17] The bimanual pelvic examination is usually conducted annually in part to screen for ovarian cancer, although its effectiveness and harms are not well known and were not a focus of this review. No randomized trial has assessed the role of the bimanual pelvic examination for cancer screening. In the PLCO Trial, bimanual examination was discontinued as a screening strategy in the intervention arm because no cases of ovarian cancer were detected solely by this method and a high proportion of women underwent bimanual examination with ovarian palpation in the usual care arm.

[18] ACOG Committee Opinion No. 534: Well-Woman Visit. Committee on Gynecologic Practice. *Obstet Gynecol.* 2012 Aug;120(2)1:421-24. doi: 10.1097/AOG.0b013e3182680517.

[19] For women aged ≥21 years, annual pelvic examination is a routine part of preventive care even if they do not need cervical cytology screening, but also lacks data to support a specific time frame or frequency of such examinations. The decision to receive an internal examination can be left to the patient if she is asymptomatic and has undergone a total hysterectomy and bilateral salpingo–oophorectomy for benign indications, and is of average-risk.