#### Reducing the risk of cervical cancer

Routine cervical cancer screening is one of the necessary steps to reducing your risk. You may also lower your risk of an HPV infection and protect against other sexually transmitted infections (STIs) by using a condom during intercourse. But, since HPV lives in the skin of the genitals, it may be transmitted before a condom is put on or through the use of sex toys and touching or rubbing. A person may also lower their risk by not smoking and limiting their number of sexual partners.

For adolescents, teens, and young adults between the ages of 9 and 26, the CDC recommends the HPV vaccination.<sup>5</sup> The vaccine is approved for adults up to age 45.<sup>5</sup> Even if you have been vaccinated, routine screening is still recommended since the vaccine does not protect against all high-risk HPV types.

Talk to your healthcare provider about HPV and cervical cancer for more information.

#### REFERENCES

- 1. Khan MJ, Castle PE, Lorincz AT, et al. The Elevated 10-Year Risk of Cervical Precancer and Cancer in Women With Human Papillomavirus (HPV) Type 16 or 18 and the Possible Utility of Type-Specific HPV Testing in Clinical Practice, JNCI: Journal of the National Cancer Institute, Volume 97, Issue 14, 20 July 2005, Pages 1072–1079, https://doi.org/10.1093/jnci/dji187.
- Okunade KS. Human papillomavirus and cervical cancer. J Obstet Gynaecol. 2020 Jul;40(5):602-608. doi: 10.1080/01443615.2019.1634030. Epub 2019 Sep 10. Erratum in: J Obstet Gynaecol. 2020 May;40(4):590. PMID: 31500479: PMCID: PMC7062568.
- Walboomers JMM, Jacobs MV, Manos MM, et al. Human papillomavirus is a necessary cause of invasive cervical cancer worldwide. J Pathol. 1999;189:12-19.2.2. Andrae B, et al, J Natl Cancer Inst. 2008;100(9):622-629.
- Centers for Disease Control and Prevention: What do my cervical cancer screening test results mean?. https://www.cdc.gov/cancer/cervical/basic\_info/test-results.htm. Access October 28, 2022.
- Centers for Disease Control and Prevention: HPV Vaccination Recommendations. https://www.cdc.gov/vaccines/schedules/hcp/ imz/child-adolescent.html. Accessed October 18, 2022.

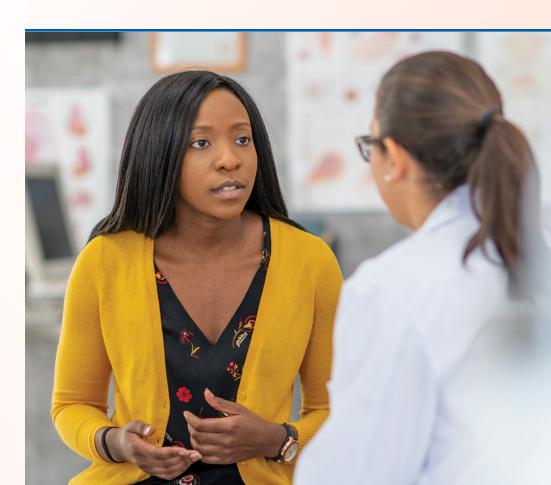
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Roche Diagnostics Corporation 9115 Hague Road Indianapolis, IN 46256

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# HPV and Cervical Cancer Prevention



# The importance of cervical cancer screening

#### The human papillomavirus

The human papillomavirus (HPV) is a very common virus transmitted through skin-to-skin or sexual contact regardless of your or your partner's birth-assigned sex or gender identity. There are over 200 HPV types (genotypes). However, only certain types are known to cause genital warts and cancers. HPV16 and HPV18 are the highest-risk types known to cause 70% of all cervical cancers.



#### Cervical cancer

Cervical cancer starts in the cervix, the lower part of the uterus. The cervix connects the vagina to the uterus. A persistent HPV infection is known to be the primary cause of cervical cancer and detected in more than 99% of cases of cervical cancer.<sup>2</sup> Treatment can be highly successful when found early or in the pre-cancer stage.

### Screening for cervical cancer

Healthcare providers use two screening tests: the Pap and HPV tests. The two screening options can be done together or independently, depending on a person's age or medical history and the doctor's recommendation. The frequency or how often you get screened depends on each individual and screening history.



Pan tes

A Pap test looks for abnormal cells on the cervix that can indicate early signs of cancer.

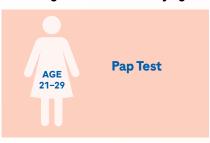


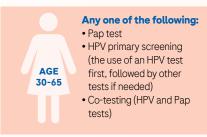
HPV tes

An HPV test detects high-risk human papillomavirus or HPV

The difference between the two screening tests is the Pap test looks for changes in cells before they develop into cancer. The HPV test looks for high-risk HPV before any cell changes occur. So, the HPV test can better predict your risk for cervical disease.

#### Screening recommendation by age





#### **Understanding screening results**

Testing positive for HPV is not a reflection of sexual behavior or lifestyle, and it can happen in a monogamous relationship, as the virus can go undetected for years. Most HPV infections have no signs or symptoms and are cleared by the body's natural immune system.<sup>3</sup> A positive result does not mean you have or will develop cervical cancer, but it does mean you could be at increased risk.

### There are five potential combinations of cervical screening results:4

## Pap test (cervical cytology) results:



# Normal Pap

No cell changes were found on the cervix. There is a low chance of developing cervical pre-cancer or cancer; you should have your next screening test in 3 years.



### Pap Unclear

(also known as ASC-US, atypical squamous cells of undetermined significance) Some cells on the cervix do not look normal, but the changes do not clearly suggest a precancerous lesion. Your doctor may recommend an HPV test to find out if the cell changes are related to HPV.



# Pap Abnormal

Cell changes were found on the cervix. The changes may be minor (low-grade) or moderate to severe (high-grade). This does not mean you have cervical cancer. Most of the time, minor changes go away on their own. However, more severe changes may result in cervical cancer if not treated. Your doctor may suggest an HPV test or colposcopy to help determine the next steps.

#### **HPV** test results:



#### **HPV Negative**

There is no HPV infection, and the risk is low for developing cervical pre-cancer or cancer in the next 5 years.



#### **HPV Positive**

There is a high-risk HPV infection and increased risk of cervical pre-cancer or cancer. Your doctor may suggest waiting a year before retesting to allow the body more time to clear the infection, request additional testing to see if the HPV infection is changing, or recommend a colposcopy to help determine the next steps. It is important that you return for your follow-up visit.