

## Human Papillomavirus (HPV) Vaccination is Cancer Prevention:

# Frequently Asked Questions



### What does HPV have to do with cancer?

Human papillomavirus, also called HPV, is one of the most common viruses. It can cause health problems like genital warts and cancer. In fact, more than 40 types of HPV are linked to 6 types of cancers. These cancers are found in both males and females. The cancers include cervical, vulvar, vaginal, penile, anal, and certain oral/throat cancers.

### How does HPV cause cancer?

When the body's immune system can't fend off an HPV infection caused by high-risk types of HPV, the virus can build up. Then normal cells can become abnormal, or pre-cancerous. These cells can grow and multiply, causing cancer. The longer HPV stays in the body untreated, the more likely it is to cause such cell changes and lead to cancer.

### Are HPV cancers preventable?

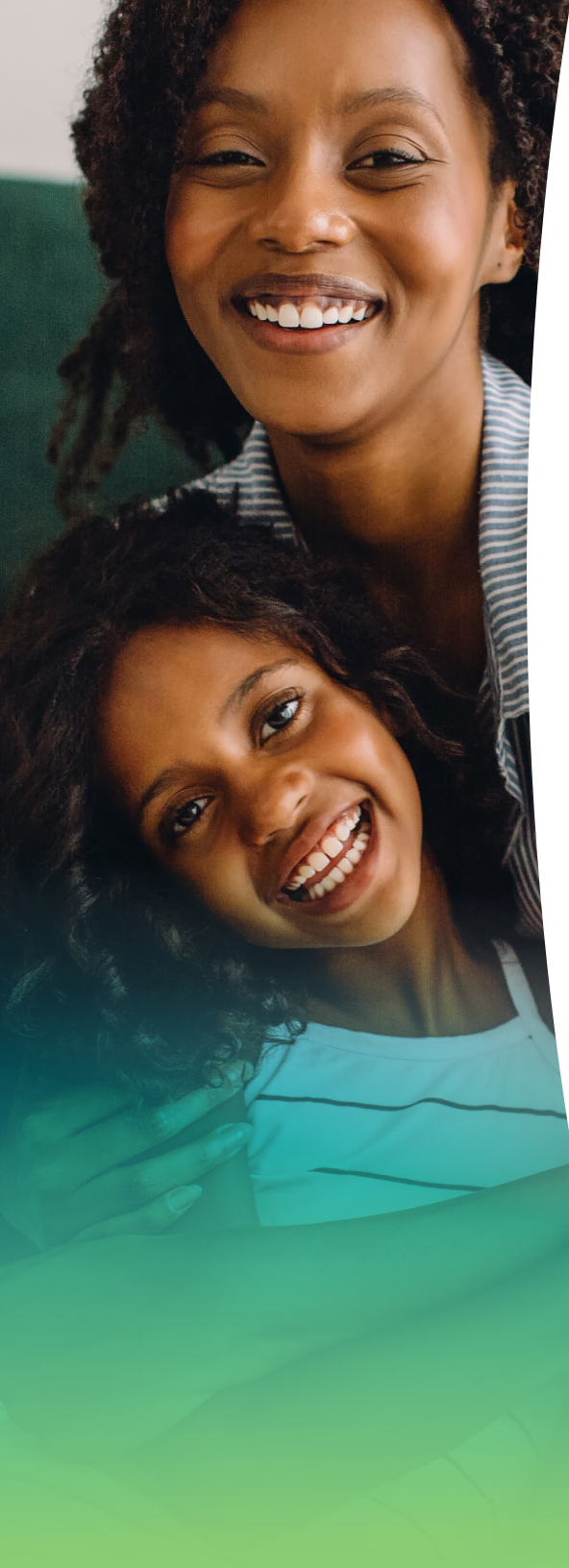
Yes! Thanks to HPV vaccination, everyone ages 9–45 can protect themselves from HPV and the cancers that it can cause.

### Why does my child need the HPV vaccine at such a young age? Are they really at risk?

**Early vaccination protects best.** The HPV vaccine can be given at age 9. It works best when given before age 13. The Centers for Disease Control and Prevention (CDC) recommends 2 HPV vaccine doses through age 14. Each dose should be given 6-12 months apart.

- Those who start the HPV vaccine series on or after age 15 should get 3 doses over 6 months. No matter the age, those with weak immune systems should get 3 doses.

**It's not too late to catch up on HPV vaccination.** People ages 27–45 are also strongly encouraged to talk with a health care provider to see if HPV vaccination is right for them.



### Should boys and men get HPV vaccination too?

Yes! HPV can affect everyone – both males and females. HPV can also cause cancers in males, specifically penile, anal, and oral or throat cancers.

### Is the HPV vaccination required?

The CDC and other major medical organizations strongly recommend HPV vaccination. Experts consider it a critical tool in the fight against cancer. School requirements seek to promote public health and safety. Hawaii; Rhode Island; Virginia; Washington, DC; and Puerto Rico are the only states or territories that require HPV vaccination.

### Is HPV a sexually transmitted infection?


Yes, HPV may be passed from one person to another through intimate contact. But it can also infect, be carried by, and cause symptoms in everyone – regardless of gender or sex – through skin-to-skin contact. HPV vaccination prevents these symptoms, including 6 types of cancer.

### How does HPV vaccination work?

Gardasil 9, the only HPV vaccine now used in the U.S., prevents infection from 9 HPV types:

- HPV 16 and 18. These high-risk types of HPV cause about 70% of cervical cancers and other HPV cancers.
- HPV 31, 33, 45, 52, and 58. These high-risk types of HPV cause another 10–20% of cervical cancers.
- HPV 6 and 11. These cause 90% of genital warts.

**HPV vaccination is cancer prevention.** HPV can cause 6 forms of cancer in adults – including cervical, vaginal, vulvar, anal, penile, and certain oral/throat cancers. HPV vaccination has been proven to prevent 90% of them.



## Is HPV vaccination safe? Are there any side effects of HPV vaccination?

Studies show that HPV vaccination works well. The vaccine has lowered the number of HPV pre-cancers and cancers.

Like most vaccines, HPV vaccination can cause pain, swelling, and redness at the injection site. Other reported side effects include headaches, fatigue, nausea, and, in rare cases, dizziness and fainting.

Studies show that HPV vaccination does not cause fertility problems, HPV infection, or cancer. Vaccination supports families by protecting the ability to have children and stay healthy to see their grandchildren.

## What disparities exist in HPV vaccination across different groups?

**STATE-LEVEL DISPARITIES.** States in the South and Intermountain West regions generally tend to have lower levels of HPV vaccination. On the other hand, states in the Northeast typically have the highest HPV vaccination coverage for children ages 13-17.

**DISPARITIES BY SEX.** Male adolescents across the U.S. are slightly less likely (52%) to be up to date on HPV vaccinations compared to females (57%).

**RACIAL/ETHNIC DISPARITIES.** Asian Americans (65%) are most likely to be up to date on vaccinations, with American Indian/Alaskan Natives (58%), Hispanic (58%), Black (54%), and white Americans (52%) trailing behind.

**INSURANCE-BASED DISPARITIES.** Uninsured people are least likely to be up to date on HPV vaccination (37%). Vaccination rates vary for other types of insurance coverage. Privately insured people (53%) generally have lower coverage than publicly insured people (59%).

### How much does HPV vaccination cost?

HPV vaccination is covered by almost every health insurance plan in the United States. Vaccination should be given at no cost for most patients. Uninsured people may be able to get the vaccine through federally funded health programs, like the “Vaccines for Children” (VFC) program. Talk to your health care provider to learn about your coverage and costs.

### Where can my children or I get vaccinated against HPV?

HPV vaccines may be given at physician’s offices, community health clinics, school-based health facilities, or local health departments. Check out your state or local health department website or contact a health care provider near you for details. HPV vaccination also may be available through your pharmacy.

Want to learn more? Talk with your or your child’s healthcare provider, or another trusted, reliable source of medical information, and visit [StJude.org/Bright-Future](https://www.stjude.org/Bright-Future).

HPV vaccination is cancer prevention. It offers protection today for a lifetime against HPV cancers.

### References

- American Association for Cancer Research (AACR): [www.aacrjournals.org](https://www.aacrjournals.org)
- American Cancer Society (ACS): [www.cancer.org/hpv](https://www.cancer.org/hpv)
- Centers for Disease Control and Prevention (CDC): [www.cdc.gov/hpv](https://www.cdc.gov/hpv)
- Kaiser Family Foundation: [www.kff.org](https://www.kff.org)
- National Cancer Institute (NCI): [www.cancer.gov/hpv](https://www.cancer.gov/hpv)