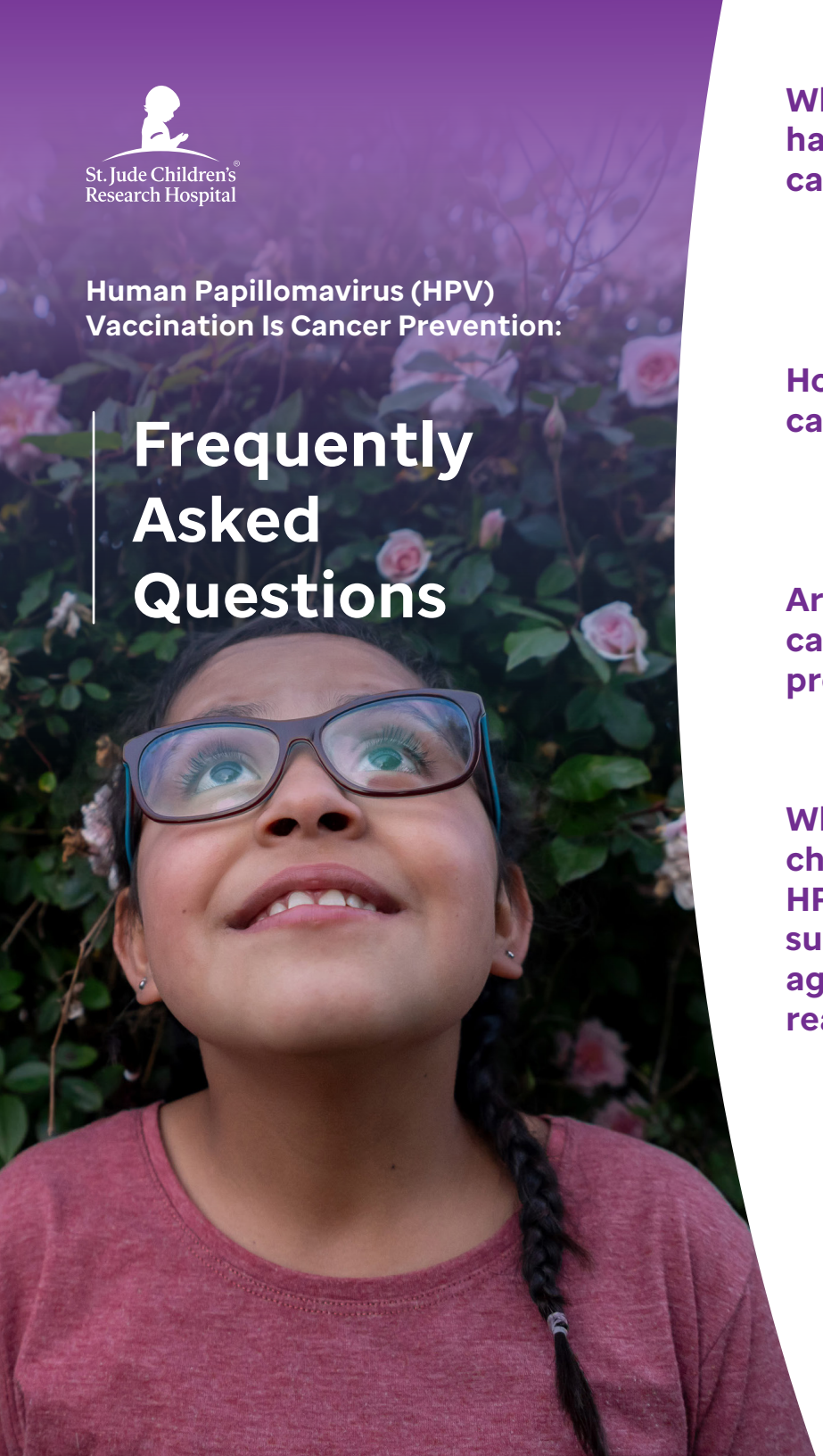
St. Jude Children's Research Hospital

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 cancer, genital warts, and other HPV diseases. In fact, more than 40 types of HPV are linked to 6 types of cancers. These types of HPV are called high-risk, meaning at higher risk for cancer. HPV cancers are found in everyone—both males and females. The cancers include certain oral or throat, cervical, anal, vulvar, vaginal, and penile cancers. Oral or throat cancer in males is the most common type of HPV cancer in the United States.

How does HPV cause cancer?

When the body's immune system can't fend off a high-risk HPV infection (meaning at higher risk for cancer), the virus can build up, making normal cells become abnormal or precancerous. 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 that 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. More than 40,000 cases of HPV cancer are diagnosed each year in the United States. 90% of these are preventable through on-time HPV vaccination by the 13th birthday. Talk to your health care provider today about HPV vaccination.

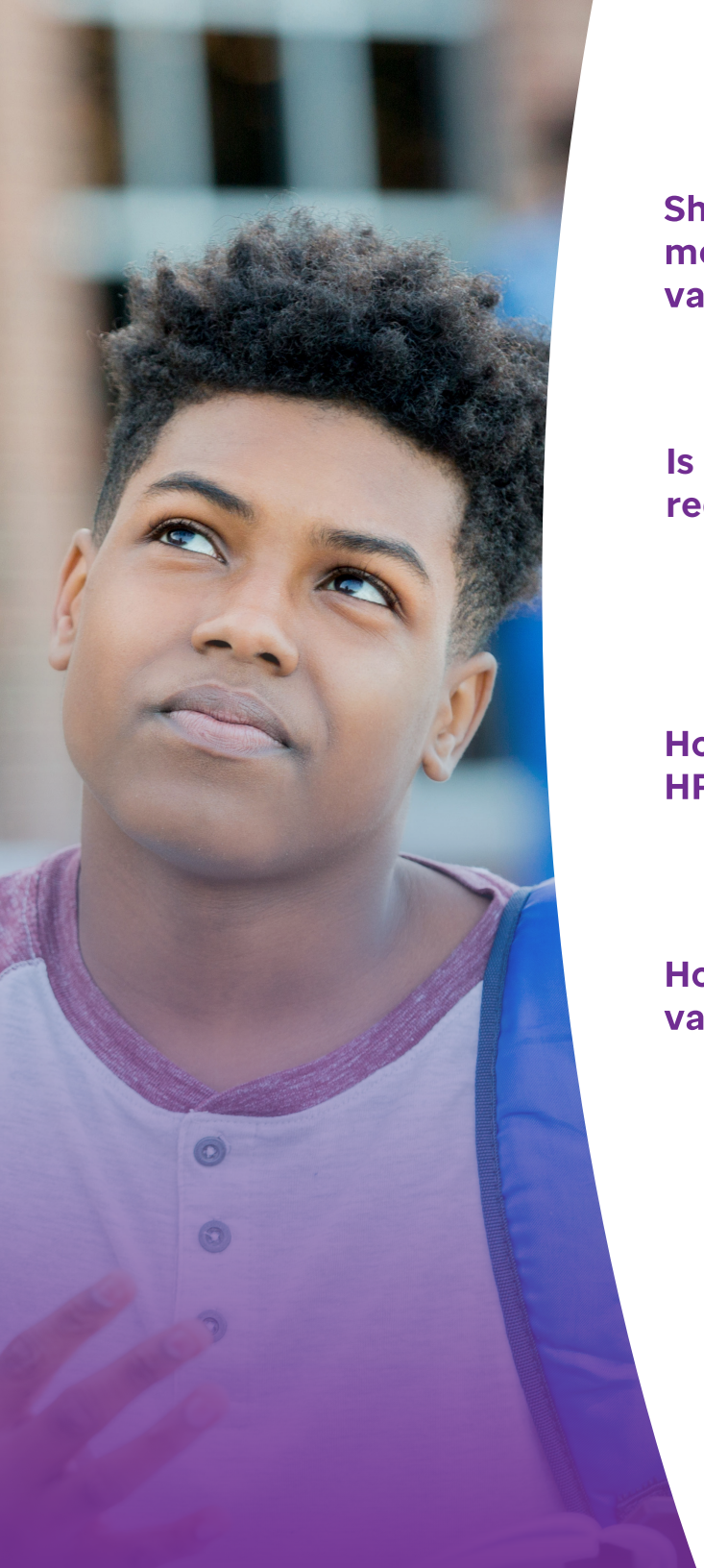
Why does my child need the HPV vaccine at such a young age? Are they really at risk?

Everyone is at risk of developing HPV cancers in adulthood. This is why on-time HPV vaccination is important -- to protect children from HPV cancers in adulthood.

On-time HPV vaccination by the 13th birthday protects best. HPV vaccination can be given starting at age 9**.** It is routinely recommended for everyone ages 9-26. Starting the series early maximizes the potential for cancer prevention by protecting before they are ever exposed to or at risk of HPV.

- Currently, 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. This includes childhood cancer survivors.

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 affects everyone—both males and females. HPV can also cause cancers in males, specifically oral or throat, anal, and penile cancers. Oral or throat cancer in males is the most common type of HPV cancer in the United States. This type of HPV cancer occurs most often in males. This is why HPV vaccination is important for everyone -- boys and girls.

Is HPV vaccination required?

The CDC and other major medical and public health organizations strongly recommend HPV vaccination. It is routinely recommended for everyone ages 9-26. Experts consider it a critical tool in the fight against cancer. School vaccination requirements seek to promote public health and safety. Hawaii, Rhode Island, Virginia, Washington, DC, and Puerto Rico are the only states or territories that currently require HPV vaccination for school-entry.

How do people get HPV?

HPV may be passed from one person to another through intimate contact. It can also infect, be carried by, and cause symptoms in everyone through skin-to-skin contact. On-time HPV vaccination prevents getting and giving someone HPV and protects against 6 types of cancer in adulthood.

How does the HPV vaccine work?

The HPV vaccine teaches your body to fight the virus before it can make you sick or cause disease. It is made from small, safe particles that mimic the virus's structure, causing the body to produce antibodies that can fight off the HPV virus if exposed. This allows the body to develop immunity without actually contracting the virus.

When you receive the vaccine, your immune system recognizes these virus-like particles as foreign and creates antibodies to defend against them. These antibodies remain in your system, ready to protect you if you're ever exposed to the actual HPV virus. This immune response provides long-lasting protection against the specific HPV types included in the vaccine.

HPV vaccination is cancer prevention. HPV can cause 6 types of cancer in adults—including oral or throat, cervical, anal, vaginal, vulvar, and penile 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 is safe and works well. More than 500 million doses have been given with an excellent safety record. The vaccine has lowered the number of HPV precancers and cancers in the United States.

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 over a lifetime to see their future generations grow up.

What differences exist in HPV vaccination across different groups?

Differences in HPV vaccination coverage exist. It is important to understand that everyone is at risk of HPV cancers. HPV vaccination is for everyone.

GEOGRAPHY. People living in rural areas of the United States are less likely to be vaccinated against HPV and more likely to be diagnosed with HPV cancers compared to those in urban areas.

STATE-LEVEL DIFFERENCES. States in the South and Mountain 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.

DIFFERENCES BY SEX. Male adolescents across the United States are slightly less likely to be up to date on HPV vaccinations compared to females.

RACIAL/ETHNIC DIFFERENCES. Asian Americans are most likely to be up to date on vaccinations, with American Indian/Alaskan Native, Hispanic, Black, and white Americans trailing behind.

INSURANCE-BASED DIFFERENCES. Uninsured people are least likely to be up to date on HPV vaccination. Vaccination rates vary for other types of insurance coverage. Prior to the COVID-19 pandemic, privately insured people generally had lower coverage than publicly insured people. However, now there are lower rates among publicly insured people compared to privately insured people.

CHILDHOOD CANCER SURVIVORS. Childhood cancer survivors have lower coverage compared to the general population. They are at increased risk of developing secondary HPV cancers in adulthood.

How much does HPV vaccination cost?

For those ages 9-26, HPV vaccination is covered by almost every major health insurance plan in the United States. Vaccination should be given at no cost for most patients. Uninsured or underinsured children under age 19 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 health care provider offices, community health clinics, school-based health facilities, local health departments, or other locations. 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.

Talk with your or your child's health care provider or another trusted, reliable source of medical information today, and visit stjude.org/PreventHPV.

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

References

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

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