



FACT 1 The HPV vaccines are **safe**

Scientists from the CDC, the FDA, and other organizations in the US and around the world continue to monitor and report any adverse events and side effects related to HPV vaccines. Monitoring in 2009 revealed that most side effects related to HPV vaccines were mild and were similar to those seen with any other vaccine. Several studies from 2011-2015 looking at more than four million women and girls who were vaccinated show that there is no relationship between HPV vaccines and autoimmune disorders, blood clots, or other serious disorders.

FACT 2 The HPV vaccine does **NOT** contain harmful ingredients

HPV vaccines contain ingredients that have been proven to be safe. Like the hepatitis B and Tdap vaccines, HPV vaccines contain aluminum, which boosts the body's immune response to the vaccine. In addition to certain vaccines, aluminum is found in breast milk, infant formula, antacids, and numerous foods and beverages, including fruits and vegetables, seasonings, flour, cereals, nuts, dairy products, and honey. Typical adults ingest 7 to 9 milligrams of aluminum per day, whereas the HPV vaccines contain no more than .5 milligrams of aluminum per dose.⁴ These vaccines, like other vaccines for children and adolescents, do not contain thimerosal (a preservative that contains mercury).

FACT 3 The HPV vaccine is necessary, regardless of sexual activity

Vaccines are for prevention, not treatment, so they only work if given before coming in contact with a virus. Research shows that cancer protection decreases as age at vaccination increases. Studies have shown that HPV vaccination is not associated with changes in sexual behavior. Age of onset of sexual activity, incidence of STIs, and rates of pregnancy have all been shown to be similar in vaccinated girls compared to unvaccinated girls.

FACT 4 The HPV vaccine is for **boys and girls**

Both males and females can get HPV. It's very common; the CDC estimates that between 80-90% of people will be infected with at least one type of HPV in their lifetime. Although cervical cancer is currently the most common type of cancer caused by HPV, persistent infection also causes cancers of the base of the tongue and tonsils. These cancers are becoming more common, especially among men, and may be more common than cervical cancer by 2020. HPV can also cause penile and anal cancers in men. HPV vaccination helps prevent infection with the types of HPV that cause most HPV cancers in men.

FACT 5 The HPV vaccine is effective and **helps prevent cancer**

In studies that led to the approval of HPV vaccines, the vaccines provided nearly 100% protection against persistent cervical infections with HPV types 16 and 18, plus the pre-cancers that those persistent infections can cause. In addition, a clinical trial of HPV vaccines in men indicated that they can prevent anal pre-cancers caused by persistent infection. HPV cancers can take decades to develop, and the vaccines have not been in use long enough to produce studies comparing cancer rates. Advanced pre-cancers are universally accepted markers for cancers.

FACT 6 The effectiveness of the HPV vaccine **does not decrease over time**

Ongoing studies have found that those who received the HPV vaccine continue to have antibodies to the virus, providing long-term protection against infections and pre-cancers. There is no indication that they will decrease over time. Studies will continue to monitor the duration of protection.