

HPV VACs: Myth Busting

Vaccinate Adolescents against Cancers

	Myth	Fact	Talking Point
#1	<i>The HPV vaccine is unsafe</i>	Prior to the FDA licensing the HPV vaccines, nearly 60,000 men and women were studied to ensure vaccine safety and both the FDA and the CDC monitor vaccine safety continually. Recently published research looked at emergency room visits and hospitalizations for 60 days following the vaccination. The research found that more than 200 categories of illness were reviewed and in almost all cases, the condition existed prior to vaccination. Thus, getting the vaccine did not increase the likelihood of developing adverse conditions. ¹	Since 2006, about 70 million doses of HPV vaccines have been distributed in the US and more than 100 million doses have been given worldwide. The safety is continually monitored in 80 countries. No serious safety concerns have been identified. ⁵
#2	<i>The HPV vaccine is unnecessary unless you're sexually active</i>	Vaccines are for prevention, not treatment, so they only work if given before coming in contact with a virus. Getting vaccinated against HPV before risk of exposure, such as sexual activity, is important. Research shows that younger people create more antibodies to the vaccine than those in their late teens. This means those who are vaccinated are better protected if they're exposed to HPV in the future. ³	We vaccinate people well before they're exposed to an infection (i.e., measles and the other recommended childhood vaccines). Similarly, we want to vaccinate people before they are exposed to HPV. ⁵ The HPV vaccine produces a higher immune response in preteens than it does in older teens and young women. ⁶ The vaccine prevents twice as much cervical pre-cancer when given by age 14 than it does after age 15. ⁹ HPV is so common that almost everyone will be infected at some point in their lives. It is estimated that 79 million Americans are currently infected and that there are 14 million new HPV infections each



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			year. Most people who are infected will never know it. So even if your child delays sexual activity until marriage, or only has one partner in the future, they could still be exposed if their partner has been exposed. ⁵
#3	<i>The HPV vaccine is only for females</i>	Both males and females can get HPV. It's very common – 4 out of 5 people have HPV at some point in their lives. Although cervical cancer is the most common type of cancer caused by HPV, persistent infection also causes cancers of the tongue and the base of the tonsils. These cancers are becoming more common, especially among men, and may be more common than cervical cancer within the next 5 years. HPV can also cause penile and anal cancers affecting men. The HPV vaccine provides protection against most of the genital cancers in men caused by HPV infection.³	The HPV vaccine is strongly recommended for males and females. One HPV vaccine—called Gardasil—is also for boys. This vaccine helps prevent boys from getting infected with the types of HPV than can cause cancers of the throat, penis, and anus; it also prevents genital warts. When boys are vaccinated, they are less likely to spread HPV to their current and future partners.⁵



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#4	<i>The HPV vaccine is ineffective</i>	In initial clinical trials, the vaccine was given to 20,000 women ages 16–26 in 33 countries including Australia. These trials showed the vaccine is almost 100% effective in preventing abnormalities in cells in the cervix caused by high-risk HPV types 16 and 18. Those abnormalities are a proven precursor to cervical cancer. Further clinical trials involving more than 4,000 males ages 16–26 from 18 countries showed the vaccine was 90% effective in preventing genital warts and abnormalities associated with penile cancer, and 78% effective in preventing anal disease caused by HPV types 6, 11, 16 and 18.³	Numerous clinical trials have proven the vaccine’s effectiveness in preventing HPV-caused cervical, anal, and penile cancers, as well as genital warts. In addition, studies in the US and other countries that have introduced the HPV vaccine have shown a significant reduction in infections caused by the HPV types targeted by the vaccine.⁵
#5	<i>The HPV vaccine encourages sexual activity</i>	A recent study looked for any correlation between HPV vaccination and sexual activity-related outcomes (i.e. pregnancy, sexually transmitted infection testing or diagnosis and contraceptive counseling) over a 3 year period of time. After comparing outcomes in vaccinated vs. unvaccinated 11- and 12-year-old females, it was found that HPV vaccination during the recommended ages was not associated with an earlier onset of sexual activity or an increase in sexual activity-related outcomes (less than .01% difference between the two groups).^{1,2}	Studies have shown there’s no correlation between receiving the HPV vaccine and increased rates of (or earlier engagement in) sexual activity.



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#6	<i>People already know about the HPV vaccine, and will ask for it if they want it</i>	Studies on the vaccine have shown that up to 60% of parents have no prior knowledge about the vaccine before their child's provider educates them about it. ⁴	A strong provider recommendation is the single best predictor of vaccination . ⁵
#7	<i>The HPV vaccine causes serious side effects including death</i>	Of the 14 deaths recorded among girls and women in the (FDA) study (of the HPV vaccine), the causes included car accidents, congenital heart problems, suicide, lupus, and pneumonia and were not linked to the vaccine.¹ Globally, over 100 million doses of the vaccine have been given in more than 120 countries, and all adverse reactions have been monitored and investigated. All vaccines can have side effects. The reactions that people have had after the HPV vaccines have been similar to those from other vaccines.	The vaccine was tested in numerous clinical trials and proved to be safe, and continues to be monitored for safety. Just like other vaccines, minor swelling or redness at the site of injection can occur with the HPV vaccine. The most common side effects are pain, redness, and/or swelling at the site of injection. Very rarely, more serious side effects such as anaphylactic (allergic) reaction can occur, usually if a person is allergic to an ingredient in the vaccine such as yeast.³
#8	<i>The HPV vaccine causes fertility issues</i>	Claims of HPV vaccine-induced infertility are anecdotal and not backed by research or clinical trials. The HPV vaccine can actually protect fertility by preventing gynecological problems related to the treatment of cervical cancer. It's possible that the treatment of cervical cancer could leave a woman unable to have children. It's also possible that treatment for cervical pre-cancer could put a	There are no data to suggest that getting the HPV vaccine will have a negative effect on future fertility. In fact, getting vaccinated and protecting against cervical cancer can protect a woman's ability to get pregnant and have healthy babies. ⁶



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		woman at risk for problems with her cervix, which could cause preterm delivery or other problems. ⁶	
#9	<i>The effectiveness of the HPV vaccine wears off over time</i>	Recent studies have found that those who received the vaccine continued to have antibodies to the virus. There is no indication that they will decrease over time, but studies continue. ⁷	Current data suggest the vaccine protection is ongoing, with no sign of waning. The mechanism of immune memory has been demonstrated in women who have been vaccinated, indicating the vaccine will provide long-term immunity. If it's discovered that the immunity does wane, a booster will be recommended, similar to many other vaccines.
#10	<i>The HPV vaccine has not been proven to prevent HPV-related cancers</i>	In the trials that led to the approval of Gardasil and Cervarix, those vaccines were found to provide nearly 100% protection against persistent cervical infections with HPV types 16 and 18, plus the pre-cancers that those persistent infections can cause. A clinical trial of Gardasil in men indicated that it can prevent anal cell changes caused by persistent infection and genital warts. ⁸	The vaccine has been proven, through numerous studies, to prevent the cell changes and infections that correspond with multiple HPV-caused cancers.
#11	<i>The HPV vaccine contains harmful ingredients</i>	Gardasil, Gardasil-9, and Cervarix all contain ingredients that have been proven to be perfectly safe. Like the Hepatitis B and Tdap vaccines, HPV vaccines contain aluminum, which is an adjuvant that boosts the body's immune response to the vaccine. In addition to certain vaccines, aluminum is found in breastmilk, infant formula, antacids,	Given the quantities of aluminum we are exposed to on a daily basis, the quantity of aluminum in vaccines is miniscule. Aluminum-containing vaccines have been used for decades and have been given to over one billion people without problem. In spring 2000, the National Vaccine Program Office (NVPO) reviewed aluminum exposure through vaccines



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		and numerous foods and beverages, including fruits and vegetables, beer and wine, seasonings, flour, cereals, nuts, dairy products, baby formulas, and honey. Typical adults ingest 7 to 9 milligrams of aluminum per day; whereas the HPV vaccines contain .225 milligrams of aluminum per dose. ¹⁰	and determined that no changes to vaccine recommendations were needed based on aluminum content. The Global Advisory Committee on Vaccine Safety, part of the World Health Organization (WHO), has also reviewed studies and found no evidence of health risks that would require changes to vaccine policy. ¹⁰
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