

Vaccines for your child

Human papillomavirus

Oropharyngeal cancer develops near the back of the mouth and throat, including the back and base of the tongue, the soft part of the roof of the mouth, and the tonsils.¹ Approximately three-fourths of these cancers were related to the human papillomavirus (HPV).²

Many people are exposed to HPV in their lifetime.³ Most of the time, the virus clears up, and people never develop any signs or symptoms of infection. However, in some people, the virus does not go away, and it can cause several types of cancer, including oropharyngeal cancer.

A main concern is that HPV-related oropharyngeal cancer is on the rise. In 1999, 7.2 of 100,000 people had HPV-related oropharyngeal cancers; in 2015, 10.2 of 100,000 did.⁴ Men are 6 times more likely than women to be infected with the strain of HPV associated with oropharyngeal cancer.⁵

Luckily, there is a vaccine that can protect against infection with the strains of the HPV virus known to cause some cancers.

The Centers for Disease Control and Prevention (CDC) has recommended use of this vaccine for girls since 2006 and boys since 2011. The vaccine has been found to reduce infection with HPV and prevent a variety of HPV-related cancers.^{6,7}

The CDC recommends that children receive 2 doses of the HPV vaccine from the ages of 11 through 12 years (although it can be given in 2 doses from the ages of 9-14 years). Children, teens, and adults (15-26 years) who missed getting the vaccine also can be vaccinated, although they will require 3 doses (Table).^{8,9}

CONCLUSION

The CDC considers vaccination against HPV as important as vaccination against measles or mumps. Armed with protection of the HPV vaccine, your child stands a better chance of fighting off an infection that may cause cancer in the future. Talk to your child's physician about getting the HPV vaccination. ■

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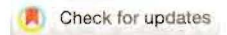


Table. Recommended human papillomavirus vaccination schedule.*

POPULATION	DOSES, NO.	TIME BETWEEN DOSES
Children 9-14 Years of Age	2	Second dose: 6-12 months after the first
People 15-26 Years of Age [†]	3	Second dose: 1-2 months after the first Third dose: 6 months after the second
People With Lowered Immunity 9-26 Years of Age [†]	3	Second dose: 1-2 months after the first Third dose: 6 months after the second

* Sources: Meites and colleagues⁸ and Centers for Disease Control and Prevention.⁹ † As of October 2018, the Centers for Disease Control and Prevention recommend this vaccine for adults up to age 26 years. The U.S. Food and Drug Administration has approved use of the vaccine in people up to age 45 years.

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1. Chi AC, Day TA, Neville BW. Oral cavity and oropharyngeal squamous cell carcinoma: an update. *CA Cancer J Clin.* 2015;65(5):401-421.
2. Osazuwa-Peters N, Simpson MC, Massa ST, Adjei Boakye E, Antisdel JL, Varvares MA. 40-year incidence trends for oropharyngeal squamous cell carcinoma in the United States. *Oral Oncol.* 2017;74:90-97.
3. Pytynia KB, Dahlstrom KR, Sturgis EM. Epidemiology of HPV-associated oropharyngeal cancer. *Oral Oncol.* 2014;50(5):380-386.
4. Van Dyne EA, Henley SJ, Saraiya M, Thomas CC, Markowitz LE, Benard VB. Trends in human papillomavirus-associated cancers: United States, 1999-2015. *MMWR Morb Mortal Wkly Rep.* 2018;67(33):918-924.
5. Sonawane K, Suk R, Chiao EY, et al. Oral human papillomavirus infection: differences in prevalence between sexes and concordance with genital human papillomavirus infection, NHANES 2011 to 2014. *Ann Intern Med.* 2017;167(10):714-724.
6. Charuvvedi AK, Graubard BI, Broutian T, et al. Effect of prophylactic human papillomavirus (HPV) vaccination on oral HPV infections among young adults in the United States. *J Clin Oncol.* 2018;36(3):262-267.
7. Centers for Disease Control and Prevention. Human papillomavirus (HPV): questions and answers. Available at: <https://www.cdc.gov/hpv/parents/questions-answers.html>. Accessed August 27, 2018.
8. Meites E, Kempe A, Markowitz LE. Use of a 2-dose schedule for human papillomavirus vaccination: updated recommendations of the Advisory Committee on Immunization Practices. *MMWR Morb Mortal Wkly Rep.* 2016;65(49):1405-1408.
9. Centers for Disease Control and Prevention. Recommended immunization schedule for children and adolescents aged 18 years or younger, United States. Available at: <https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>. Accessed August 28, 2018.