Dental Provider Toolkit: Addressing HPV-Related Oral Cancers with Your Patients

ALLIANCE FOR
HPV FREE COLORADO

HPVFreeCO.org

Dental providers are in a unique position to provide patient education that promotes healthy behaviors.

Acknowledgements

This toolkit is a collaborative project, developed by The Alliance for HPV Free Colorado, which aims to ensure all Coloradans are protected against HPV-related cancers.

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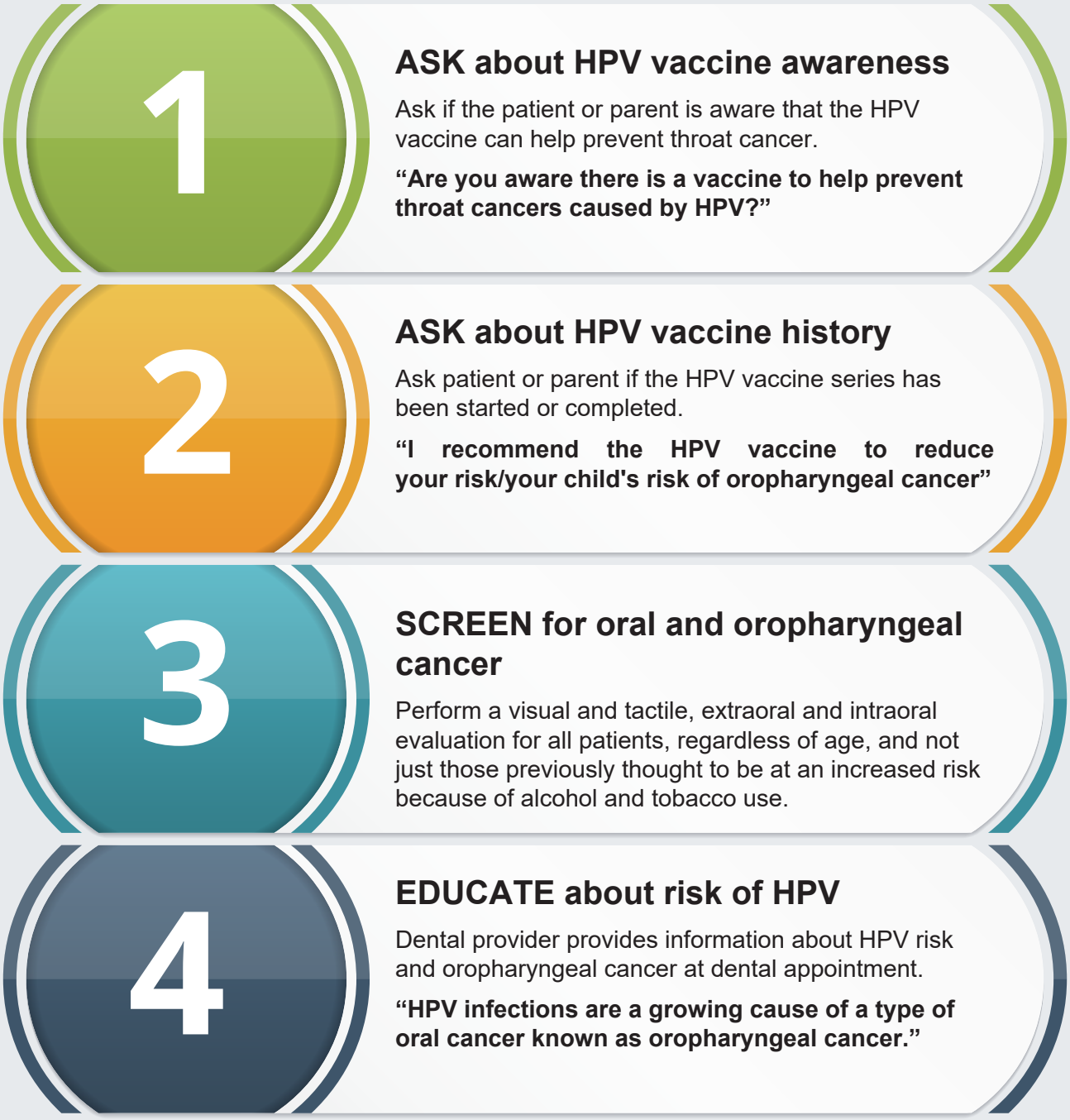
Introduction

Dental providers play a key role in promoting and protecting oral health in their patients. In addition to ensuring that patients have healthy teeth and gums, dental providers identify other potential oral health concerns in the soft tissues of the oral cavity, head and neck, the tongue, and the back of the throat. Through routine dental screenings, providers can identify abnormalities, signs, or symptoms, and refer to a specialist for early diagnosis and treatment to begin as soon as possible. Dental providers are also in a unique position to provide patient education that promotes healthy behaviors to prevent or reduce the risk of potential oral and systemic health issues, including oral cancers.

Oral cancer diagnoses are dramatically increasing in the U.S., with oropharyngeal cancer driving this increase. Research shows that infection with Human Papillomavirus (HPV) is responsible for the rise seen in oropharyngeal cancer, with the virus responsible for as much as 70 percent of oropharyngeal cancer cases. The HPV vaccine provides protection from HPV types 16 and 18, the two most commonly linked to oropharyngeal cancers. As well as five other HPV types linked to other cancers, and two that cause genital warts. Administering vaccines is not often in a dental providers scope of practice, however they are in a unique position to advocate for immunization against HPV as a strategy to reduce the risk of oropharyngeal cancer.

This toolkit is intended to be a collection of resources for dental providers to promote HPV vaccination as a strategy to reduce cancer risk with their patients. It includes recent scientific research and patient communication strategies for use in a dental setting, as well as tools and resources to support cancer prevention education. Furthermore, it lays out four actions you can take to help prevent HPV-caused oropharyngeal cancers.

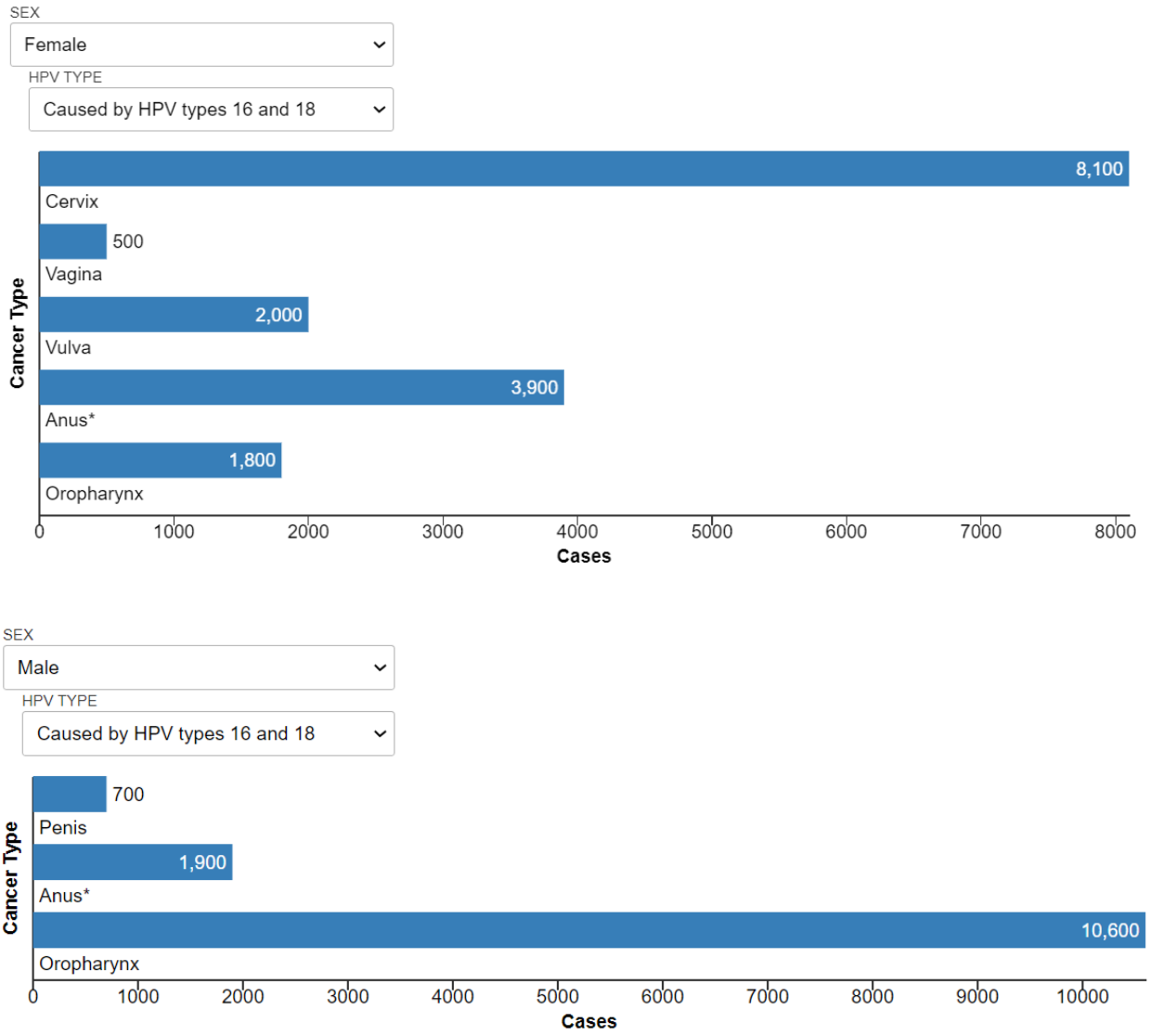
4 Steps to Help Prevent HPV-Caused Oropharyngeal Cancers

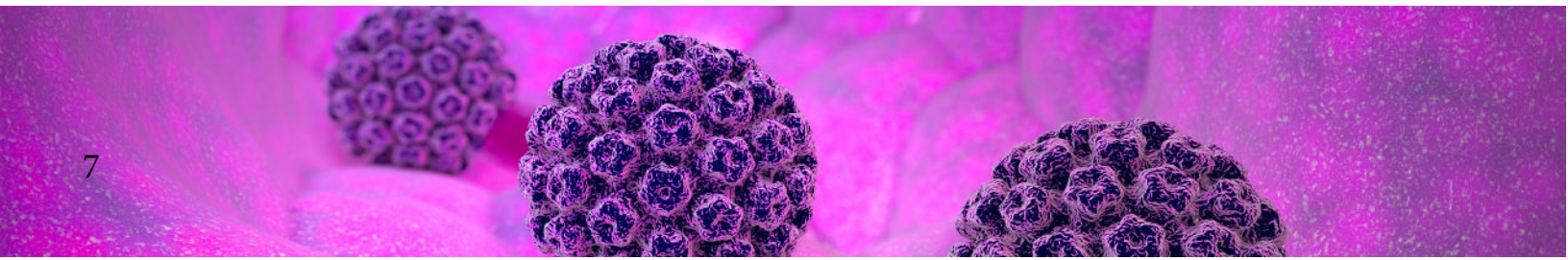


What is HPV?

HPV is a family of viruses consisting of over 150 different strains that can infect the skin or mucosal cells. Roughly 40 types of HPV have been shown to cause certain cancers and genital warts. HPV is spread very easily through intimate skin-to-skin contact, making it incredibly common. The CDC estimates that nearly 80 million people are currently infected with some type of HPV in the United States, with four out of five sexually active people acquiring an HPV infection over the course of their lifetime. Recent U.S. research estimates that 11.5 percent of men and 3.8 percent of women in the U.S. currently have an oral HPV infection.

FIGURE 1. Estimated Annual Number of Cancer Cases Attributable to HPV by Sex, Cancer Type, and HPV Type — United States, 2014-2018 (Centers for Disease Control and Prevention, 2021).





HPV-Associated Cancers

HPV infections have been shown to cause several different types of cancer at body sites where the infection takes place. These cancers include cervical, anal, vaginal, oropharyngeal, vulvar, penile, oral cavity, and laryngeal cancers. Two specific strains of HPV, types 16 and 18, are responsible for most of the cancers linked to HPV.

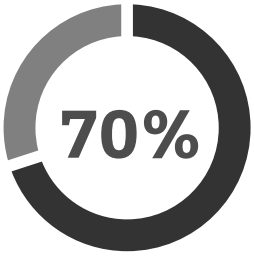
Oral Cancer

In recent years, there has been a remarkable increase in oral cancer diagnoses. Between 2011 and 2015, there was a 61 percent increase in insurance claims for oral cancer diagnoses, and these were three times more likely to occur in men than in women. Although some of these claims may be due to improvements in screening for early detection and increases to the number of insured individuals, this increase in oral cancer cases cannot solely be explained by improvements to screening and access to care.

In 2024, the American Cancer Society estimates 58,450 Americans will be diagnosed with oral or oropharyngeal cancer." While tobacco use and heavy alcohol consumption remain major risk factors for oral cancer, HPV is believed to be the driver in the rise of oropharyngeal cancer.

Oral cancers can be difficult to discover in early stages because the signs and symptoms are not always obvious to the individual who is developing the disease, or to professional screening for it. Symptoms can be very subtle or painless. A dental professional or doctor should evaluate any symptoms that they are concerned with and or that have persisted for two or more weeks.

HPV primarily manifests itself in the oropharynx, the posterior one third base of the tongue and lingual tonsils, the palatine tonsils, the tonsillar crypts, and tonsillar pillars.



An estimated 70% of oralpharyngeal cancers are caused by HPV

White, non-smoking males age 35 to 55 are most at risk, 4 to 1 over females

Oral Cancer Risk Factors

HPV

The CDC states that up to 80% of Americans will have HPV infections in their lifetime and most will clear those infections without consequence, or even knowing that they had the infection, as it produces no symptoms they will notice. However, for some the virus remains persistent in the body and can lead to serious health complications, including cancer. HPV is the leading cause of oropharyngeal cancers (oropharynx- the posterior base of the tongue, lingual tonsils, palatine tonsils, tonsillar pillars, tonsillar crypts, soft palate, uvula, and back of the throat) and rarely causes oral cancer (anterior area of the mouth), with white, non-smoking males 35-55 most at risk, 4-1 over females.

Tobacco and Alcohol

Although research indicates that HPV infections are driving the dramatic increases in oropharyngeal cancer (OPC) diagnoses, tobacco use and heavy alcohol use remain significant risk factors for oral cancers. Higher levels of alcohol consumption are associated with increased risk for developing oral cancers, among other serious health concerns. The National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines heavy alcohol use as binge drinking (4 drinks for women and 5 drinks for men within two hours) on 5 or more days in the past month.

Any tobacco use also increases the risk for oral cancers. Most people are familiar with the use of traditional tobacco products like cigarettes and chew/dip and how those products increase the risk of cancer, but many newer tobacco products are in use today which patients may not yet associate with cancer risk. These new products include snuff, hookah, electronic cigarettes (e-cigarettes), vaporizers, and betel nut. As a dental provider, it is important you keep your patients health history, including additional risk factors in mind.

Together, alcohol and tobacco are the two strongest risk factors for oral cancers. In addition, new studies have suggested that the combined alcohol and tobacco use increases the risk of HPV-related oropharyngeal cancer. Farsi et al. describes study results indicating the combined use of tobacco and alcohol with HPV 16 infection, increases the risk for OPC by 48 and 50 fold, respectively. Educating your patients of these risk factors is key to preventing oral cancers, including related to HPV.

HPV Vaccine

The HPV vaccine was first licensed in the United States in 2006, under the brand name Gardasil® for use in girls and young women. In 2009, the vaccine was recommended for use in boys and young men, as well. This vaccine provided protection from the two types of HPV that are responsible for most of HPV-related cancers, types 16 and 18, and two types of HPV most commonly attributed to genital warts, types 6 and 11. By 2015, there was a HPV vaccine that provided protection against a total of nine types of HPV that were also associated with certain other cancers. This higher protection Gardasil® is the only HPV vaccine currently available in the U.S.

HPV Vaccine Prevents Cancer

Research estimates that the HPV vaccine targeting the HPV strains most strongly linked to oropharyngeal cancer could prevent up to 90 percent of the cases of HPV-associated oropharyngeal cancers annually. A 2012 study found that 97 percent of patients wanted help from their dental provider to reduce their risk of oral cancers. This provides an excellent opportunity for dental providers to educate patients about oral cancer risk, including risk from HPV infection.

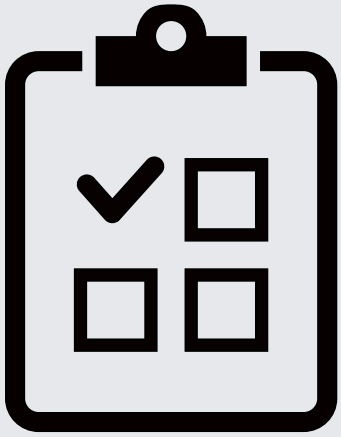
HPV Vaccination Schedule

The HPV vaccine is recommended routinely at age 11 or 12, although vaccination can be started as early as age 9 and given through age 45 with physician recommendation. Ideally, adolescents should be vaccinated before they are exposed to HPV. However, people who have already been infected with one or more HPV types can still get protection from other HPV types included in the vaccine. People who start the HPV vaccine series before their 15th birthday will receive two doses of the vaccine, and those who start the series after turning 15 will need three doses.

For more detailed clinical information on the HPV vaccine, see the CDC's page for clinicians on the HPV vaccine: http://bit.ly/2vkiNNe.

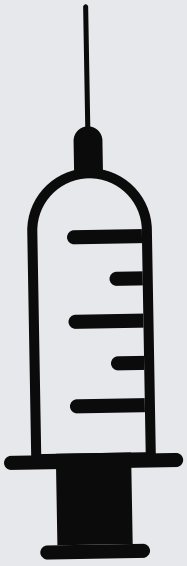
HPV Testing

Currently there is only one routine HPV test available. It is typically offered as a co-test during a pap smear for women beginning at age 30. This means that there is not a routine test for any of the other body sites besides the cervix that could be affected by an HPV infection, and no test available for men.



Potential Patient Concerns

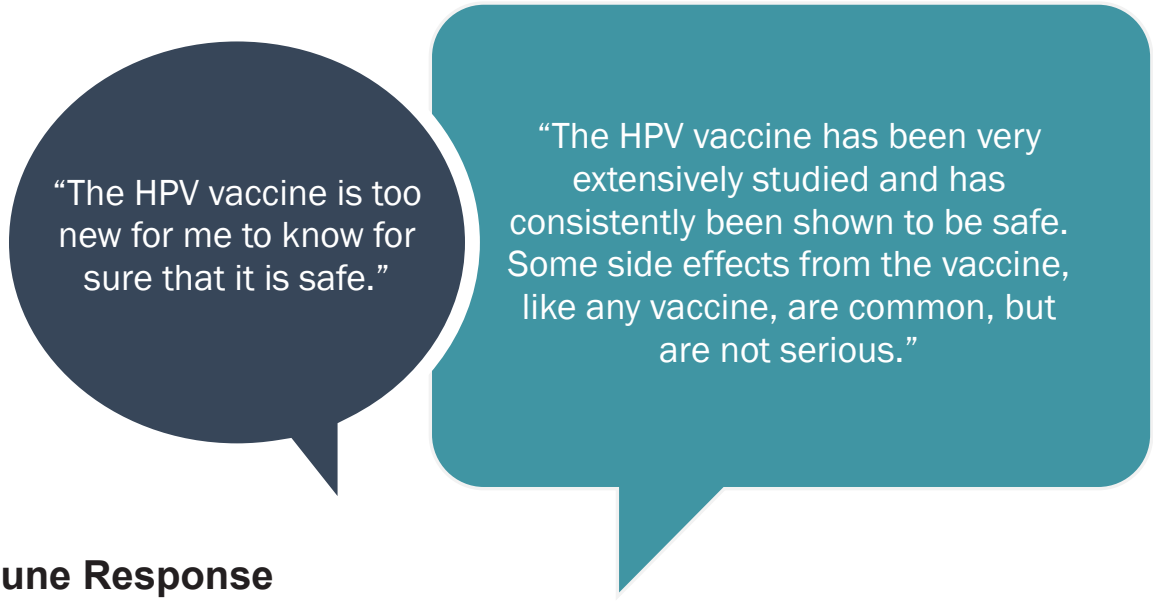
Despite the health benefits of the HPV vaccine and proven safety, some parents or adult patients may still have concerns about the HPV vaccine. These concerns are not uncommon and can usually be addressed effectively through brief conversations with patients or their parents. Below are some specific concerns that are commonly raised by patients and parents, as well as effective talking points so that you can confidently address each of these concerns. In addition to common concerns that may be raised, simply talking about the HPV vaccine during a dental visit might be a new or unexpected experience for patients during a dental visit. Because of this, it will be important to normalize your role as a dental provider in preventing oral cancers, including vaccination, in the context of this discussion.



HPV Vaccine: Talking with Patients

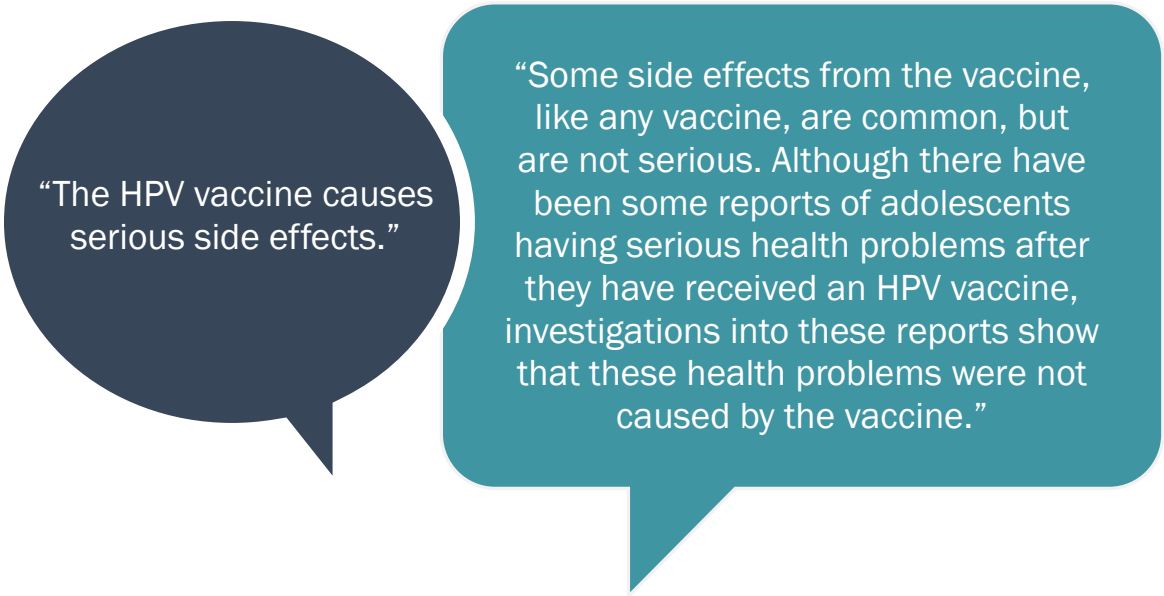
Safety Studies and Monitoring

Prior to the HPV vaccine being approved for use, it was studied extensively. The HPV9 (Gardasil® 9) was studied in clinical trials with more than 15,000 females and males. These trials showed the vaccine to be very safe. Since 2006, when the HPV vaccine was approved for use in our country, about 100 million doses of HPV vaccines have been distributed in the U.S. The safety is continually monitored in 80 countries and this monitoring has shown that there are no serious safety concerns related to the HPV vaccine.



Immune Response

Minor immune response to the HPV vaccine are common. Pain or redness at the site of injection, soreness in the arm, dizziness and fainting are all common immune response. Severe side effects and adverse events following HPV vaccination are very rare. 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.



Vaccine Efficacy

In addition to the vaccine having highest efficacy rates pre-exposure, research shows that the immune system's response is much more robust when vaccinated at the recommended age 11 or 12. Recent studies of this vaccine found that those who received two doses of the vaccine between the ages of 9 and 14 had the same immune response as those who received three doses. This led the Advisory Council on Immunization Practice (ACIP) to update the HPV vaccine recommendation for 9-14 year-olds to reduce the recommended doses from three to two. Those who start the series on or after their 15th birthday will still need to receive three doses of the HPV vaccine.

"HPV is a STI. My child is only 11, why would they need this vaccine at such a young age?"

"I can see how this would be confusing.Studies have shown that this is an ideal age to get this vaccine because the immune system responds most strongly during this time. The immune system responds so well between the ages of
9-14, adolescents vaccinated during this window only need two doses rather than the three
they would need if we wait until they are 15 or older. By vaccinating now, we are giving your adolescent the strongest possible protection against HPV infection and HPV-related cancers."

What You Can Do

Incorporate these strategies into your existing workflow to ensure patients are aware of the HPV vaccine, find out if they've started the series, complete an oral cancer screening, and make a strong provider recommendation to obtain the vaccine.

An opportune time to incorporate this is during the oral cancer screening at dental and dental hygiene appointments.

1

Ask about HPV vaccine awareness

Ask parents and patients about their awareness of the HPV vaccine and it's connection to preventing oral cancers.

Ask patient or parent: "Are you aware there is a vaccine to help prevent throat cancers caused by HPV?"

A conversation may begin with sharing what we know now about oral and oropharyngeal cancer. "What we know now is that tobacco and alcohol are not the only causes of oral cancers, the Human Papillomavirus/HPV is now the main cause of throat cancers. Have you heard about the HPV cancer vaccine that can help prevent throat cancer and other cancers caused by HPV?

2

Ask about HPV vaccine history and recommend completion

Have you or your child

What You Can Do

Please view the Alliance Oral Cancer Screening video at https://vimeo.com/568967030

3

Screen for oral cancer

Perform an oral and oropharyngeal cancer evaluation.

The American Dental Association (ADA) recommends dentists conduct routine visual and tactile examinations for oral and oropharyngeal cancer for all patients, according to a resolution passed by the ADA House of Delegates on September 9, 2019. The American Dental Hygienists' Association (ADHA) supports comprehensive screening for oral cancer, oropharyngeal cancer, and any abnormality for all patients to achieve earliest referral for diagnosis. This screening includes verbal inquiry of signs and symptoms that deserve a referral.

Add questions to the health history form, as well as a verbal inquiry, related to possible signs and symptoms associated with oral and oropharyngeal cancer. This may otherwise go unreported or missed. Document findings.

If any persistent lesions, signs or symptoms are found during an oral cancer screening, refer the patient to an Oral Surgeon, Ear, Nose, and Throat (ENT) or an Otolaryngologist-Head and Neck specialist.

For additional guidance on completing oral cancer screenings, see the Oral Cancer Foundation's protocols for conducting oral cancer screenings at http://bit.ly/2A16Boq.

Verbal questions to ask:

Have you had or currently have: Persistent hoarseness, change invoice, cough, sore throat, pain, fatigue, or numbness. Unexplained weight loss. Swollen non-painful lymph node(s). Mass or lump in neck. Difficulty swallowing or sensation of something caught in the throat and won't go down. Persistent sore or lesion inside the mouth. Enlarged or painful tonsils. Ill fitting dentures?

4

Oral cancer and HPV vaccine education could occur while reviewing health history with patient or during oral exam or cancer screening.

Educate about HPV and the HPV vaccine

Provide education on HPV and the HPV vaccine to patients and/or parents and guardians.

The oral and oropharyngeal cancer screening at a dental appointment is an optimal time to educate patients about oral and oropharyngeal cancer risks, and strategies to reduce those risks. Providers should inform the patient they are going to receive an oral cancer screening and the steps involved. That brief overview can be used for launching into describing what increases someone's risk for oral cancers and what can be done to reduce the risk. Below are recommendations for documenting this conversation in your chart, as well as an example education script for how to approach the subject during the exam.

D1301 immunization counseling

In January 2024, the American Dental Association Code Maintenance Committee released a new CDT code that can be used to document conversations dentists and dental hygienists have about the HPV vaccine and other vaccines. The Alliance for HPV Free Colorado recommends use of this code for documentation purposes only, to 1) keep track of patients who have received information about HPV, and 2) include reminders of which families may need follow-up related to HPV education and vaccine recommendation.

D12301: A review of a patient's vaccine and medical history, discussion of the vaccine benefits, risks, and consequences of not obtaining the vaccine. Counseling also includes a discussion of questions and concerns the patient, family, or caregiver may have and suggestions on where the patient can obtain the vaccine (CDT2024, p. 13).

When utilizing D1301, it is important to ensure all components of the descriptor have been completed. Since this is a general code for any type of immunization, it is also important to track details of the conversation in your notes.

Oral Cancer Client Education Example Script

"I am going to examine the outside of your head and neck, and the inside of your mouth and throat, for any abnormalities that may require a referral to a specialist for further evaluation. Just as medical providers make referrals for any concerns they may have"

"Cancers in the mouth and throat can grow quickly so it is important that you be aware of and responsive to any changes that you notice."

"If you do notice any of these symptoms or unusual changes in your mouth or throat, please contact us."

"While anyone can get oral cancer, there are steps you can take to lower your risk."

Immunization Information and Resources

Clients who wish to be immunized against HPV or who wish to have their children immunized have several local options to get the vaccine.

Those with Private Insurance or Medicaid
Most forms of private health insurance and Medicaid cover the entire cost of vaccines as a preventative health service for those who are within the ages recommended to receive the vaccine. Clients who have private insurance (or whose children have private insurance) or Medicaid can receive HPV vaccines from their primary care provider or pediatrician. Some local pharmacies may also carry HPV vaccine and be able to bill insurance.

Those without Health Insurance or who are Underinsured
Those without health insurance or whose insurance does not cover the cost of immunizations can be seen by providers who participate in the Vaccines for Children (VFC) program, which provides recommended vaccinations for children at no cost. These providers may ask for a vaccine administration fee so patients should call ahead to verify any costs.

Find a VFC provider (many VFC providers also accept private insurance or Medicaid):
https://www.colorado.gov/pacific/cdphe/find-vfc-provider

Many local health departments have immunization programs that provide low or no cost immunizations for children and adults. Contact your local health department or visit their website for more information.

Tobacco Cessation Resources

The Colorado QuitLine is a free resource that uses evidence-based interventions to help people quit tobacco for good. They can offer patients a variety of tools and strategies catered to that patient's needs to help them quit, including quit coaching, pharmacotherapy (varies depending on individual patient factors), planning and educational materials, and a sense of community with other people across the state who are working to quit tobacco.

Clients can access the QuitLine themselves by calling 1-800-QUIT-NOW or by visiting www.coquitline.org

You can refer patients by visiting the QuitLine website Healthcare Provider Referral page: https://www.coquitline.org/en-US/Just-Looking/Health-Professional/How-to-Refer-Patients
For more patient tobacco cessation resources for you to explore, please visit: https://www.coquitline.org/en-US/Just-Looking/Health-Professional

Alcohol Moderation and Cessation Resources
Mental and behavioral health resources and services vary from community to community. Your patient's health insurance provider or local public health department may be able to connect your patients with your community's free or low cost options for these services.

Oral Cancer Screening Guidelines - OCF

The following steps are one recommended screening protocol from the Oral Cancer Foundation for oral cancer screenings.

1. **Ask the patient health history questions.**

   Have you noticed any changes in swallowing?
   Do things seem to stick or catch in your throat when you swallow? This sensation usually is not painful, but something that subtly gets more noticeable over time. Most people tend to ignore things like this, especially if they are not painful, but this one question can be a red flag for the development of a base of tongue oral cancer caused by the virus.

   Have you had any chronic hoarseness?
   If it has lasted for over two weeks, that is concerning. Less than that and it could be any transient infection. Persistence over a protracted period is the indicator of something more dangerous.

   Have you noticed/felt any small lumps when feeling the side of your neck putting on makeup or shaving?
   Painless enlarged lymph nodes are often the first sign of oropharyngeal cancer. Again, something that people may ignore, these can be the metastasis of an oropharyngeal cancer away from the inside of the mouth out into the lymph nodes of the neck. Painful swollen nodes are usually a sign of an infection not cancer, but the painless ones are the red flags.

   Have you had any ear aches that seem to persist, particularly unilateral (only on one side)? Have you or any of your friends noticed a change in your voice?
   Again, like hoarseness which not only will th patient feel, but others can hear, there may be changes in how the tongue moves and helps form certain sounds when speaking. Oral cancers that impact the nerves that control the movement of the tongue can be painless and alter speech in very subtle ways or even the ability to stick it straight out of the mouth without it consistently veering to one side when trying to do so.

Oral, Head, and Neck Cancer Examination

Instruments and supplies needed:

- An adequate light source
- Mirrors (laryngeal and nasopharyngeal)
- Gloves
- Tongue blades
- 2×2 gauze pads
- Anesthetic nasal spray (only if needed)
- Flexible nasopharyngolaryngoscope (only if needed or desired)
- Otoscope
- Nasal speculum

General examination
Explain the purpose of the exam to the patient and what steps will be taken to complete the exam.

Face

- Position the patient so that they are at eye level.
- Inspect and palpate the face for asymmetry, swelling, discoloration or ulceration.

Eyes

- Test extraocular movements in each direction and visual acuity.
- Observe and record any swelling of the eye or periorbital area.

Nose

- Palpate the external nose and paranasal region overlying the maxilla and maxillary sinus.
- Using an external light source (otoscope, or penlight) and a nasal speculum, if desired, to observe and record any lesions found in the anterior septum, columella, nasal vestibule and nasal floor.

Ears

- Through conversing with the patient, note their general hearing ability.
- Carefully inspect the auricle and note any pigmented, erythematous, or ulcerous lesions. Skin cancers often appear on the sun-exposed portion of the auricle.
- Examine the internal auditory canal for masses or lesions.
- Inspect the tympanic membranes with pneumatic otoscope.

Oral Cavity

- Use an external light source to perform the oral cavity examination so that both hands are free to help with various aspects of performing the exam. Gently dry mucosal surfaces to better see color or texture changes in the tissue.

Lips

- Examine the lips, both open and closed, and note any abnormalities in symmetry, contour, color, or texture.
- Observe the vermilion border of the lower lip because this is often a prime site for oral cancers

and the frenum of the lip in the midline.

- Revert the lower lip and inspect the inner surface. The labial mucosa should be smooth and uniform in color. Note any signs of smokeless tobacco use including ulcers, red or white discolorations, texture variations in the labial mucosa.
- Inspect the gingivolabial sulcus, the gingival mucosa, and the teeth.
- Palpate the lip with thumb and index finger, noting any firm or nodular submucosal areas.
- Repeat for upper lip.

Buccal Mucosa

- Separate the inside of the cheek from the teeth and gums. Observe the sulcus on either side of the oral cavity.
- Aside from a white line from cheek chewing in some people, any irregular texture or color or the presence of ulcers should be noted.
- Pinch the cheek between index finger and thumb to feel for any masses.

Tongue

- Ask the patient to stick their tongue out and move it from side to side to observe for any asymmetry or paralysis.
- Using gauze to hold and move it, observe all sides of the tongue, particularly the lateral sides, for ulcerations, swelling, discoloration and other irregularities.
- Use a dental mirror to observe the base of the tongue by pulling the tongue forward with gauze.
- Palpate the tongue for masses or firm, fixated areas.
- Palpate the lingual tonsils and note swelling, tenderness, or masses.

Floor of the Mouth

- Elevate the tongue to inspect the area. Dry the surfaces to better observe abnormalities.
- Observe the sublingual glands.
- Palpate the submandibular glands and the submental region. Note any masses that feel firm or fixated.

Hard and Soft Palate

- Ask the patient to open their mouth widely and tilt their head back to view the hard and soft palate. It is normal for some people to have a bony outgrowth from the midline of their hard palate.
- Common signs of cancer in this area include loose teeth, red spots, white spots, ulcerations, rough areas, asymmetry, growths, or other masses.
- Observe that the uvula is hanging down at midline as deviation from midline could indicate vagal nerve palsy.

Oropharynx

Tonsils

- Ask the patient to open their mouth widely. A tongue blade may be needed on the base of the tongue to move it down enough to see the oropharynx.
- Observe the anterior and posterior tonsillar pillars and tonsillar fossa for any exophytic mass, asymmetry, ulceration, or redness.

Soft Palate

- Observe the soft palate for symmetry and check for abnormal lesions.

Posterior Pharyngeal Wall

- Inspect the wall for any ulcerations, rough areas, asymmetry, growths or other masses.

Base of Tongue

- Gently and quickly palpate the base of the tongue with a gloved finger.

Neck

- Gently palpate both sides of the neck simultaneously to compare for signs of enlargement or tenderness. Note any enlarged lymph nodes.
- Palpate along the sternomastoid muscles and underneath the mandible and down to the clavicle.
- Palpate the supraclavicular spaces on either side.
- Examine the parotid groups lying anterior and inferior to the ears, the submental, and the submaxillary chain.
- Palpate the submaxillary area by inserting a gloved finger into the patient's mouth and press structures against the other hand under the patient's chin.
- Palpate along the larynx for signs of immobility and enlargement. The Oral Cancer Foundation's recommendation is that if a painless neck mass is found in a patient who is over the age of 40 that the first differential diagnosis is oral cancer. Because these masses are rarely the primary cancer site, the inside of the mouth and oropharynx should be reexamined to identify the primary location if possible.

Thyroid

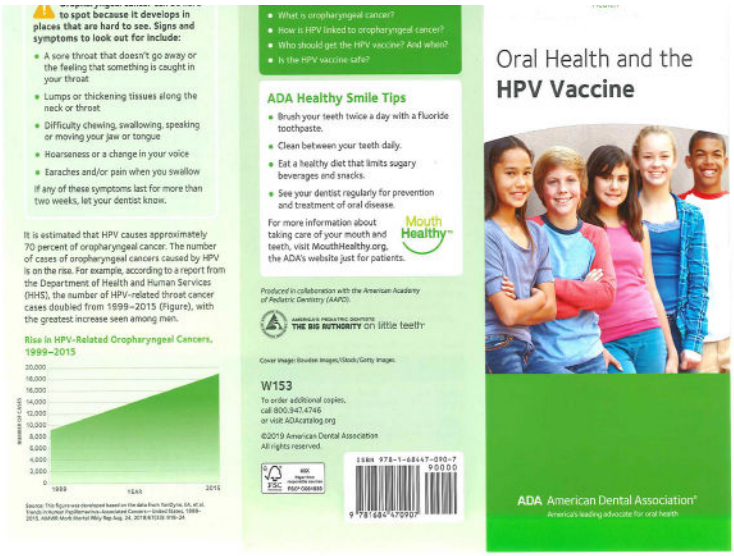
- Palpate the thyroid gland and note any nodules or masses found. The thyroid gland can be hard to feel in a typically patient but palpating the gland while the patient swallows can help.

Nasopharynx (This is not a normal part of a dental providers intraoral and extraoral evaluation)

- Ask the patient to open widely and breathe through their mouth. Use a tongue blade to carefully depress the mid portion of the tongue.
- Insert a warmed nasopharynx mirror over the tongue into the oropharynx and ask the patient to breathe through their nose.
- Inspect the posterior choanae, posterior part of the nasal septum, inferior and middle turbinates, and the superior/posterior surface of the soft palate.
- Rotate the mirror to observe the eustachian tube openings, the pharyngeal tonsil, and walls of the nasopharynx.
- Note any masses, swellings, ulcerations, or discolorations.

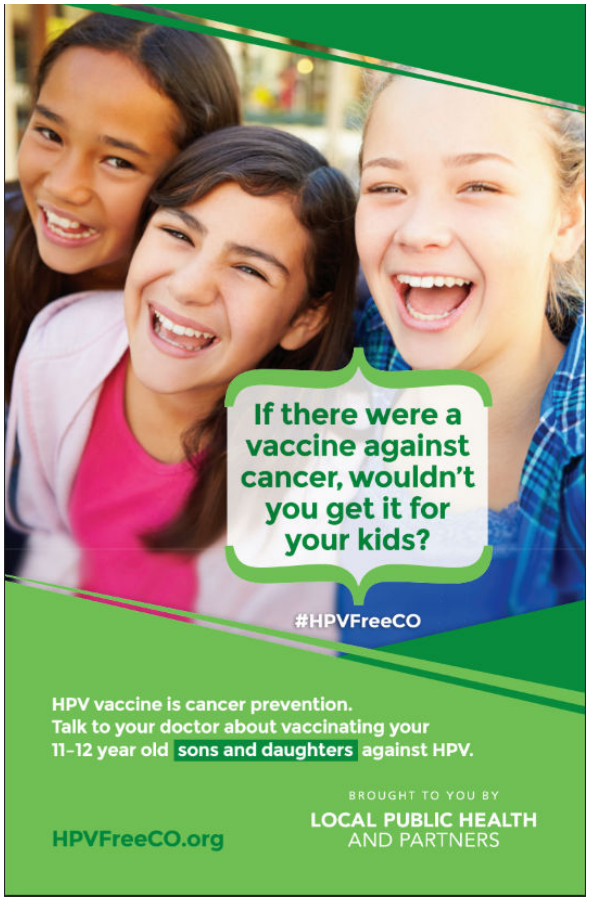
Additional Resources

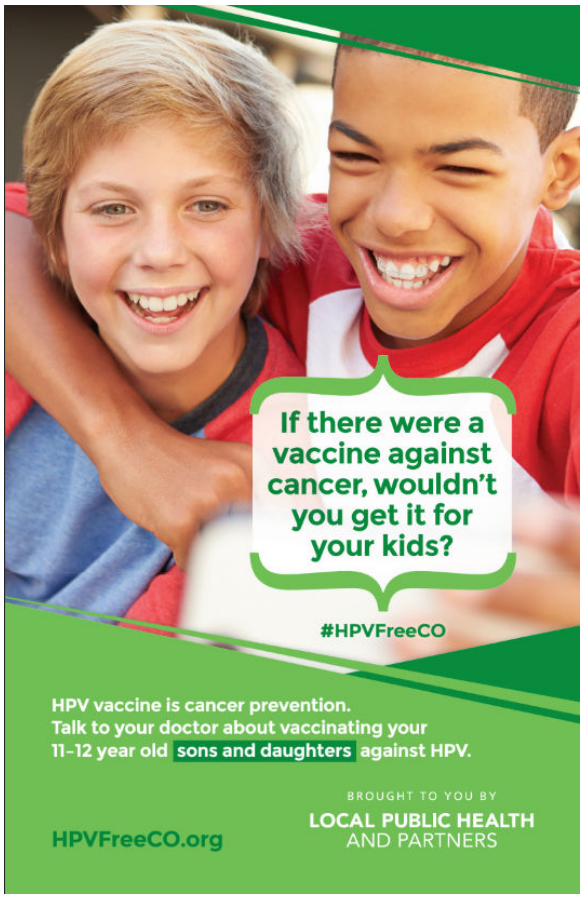
Client Education Resources



Materials located at https://www.immunizecolorado.org/

Contact ADA for their brochures.





PRACTITIONER HPV FACT SHEET

What is HPV?

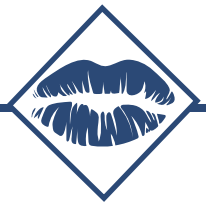
Human Papillomavirus (HPV) family is a group of viruses with strains that can be divided into low and high-risk types.

LOW-RISK HPV TYPE

Commonly cause warts or papillomas in the mouth, throat or genitals.

HIGH-RISK HPV TYPE

Can cause cancers of the oropharynx (throat) and anogenital regions (anus, cervix, vagina, vulva in women; anus and penis in men).



How is HPV transmitted?

HPV is passed by direct contact with infected skin or mucus membranes during oral, anal, or vaginal sex with someone who has the virus and may even be passed through open mouth kissing.

WHO IS AT RISK FOR HPV-RELATED OROPHARYNGEAL CANCER (OPC)?

- HPV-related OPC is more common in **men (4:1 male to female ratio)**
- Typical presentation is in the early to **mid 50s**
- High risk groups include those with early sexual debut, a large number of lifetime oral sex partners and partners of individuals who that have a known HPV-related cancer
- While **marijuana may increase risk** of developing these HPV-related OPC, many patients lack a tobacco smoking history

Is HPV common?

- HPV is the most common sexually transmitted disease in America. Nearly all men and women will get some type of HPV at some point in their lives.
- In most cases, the virus is cleared by the body's immune system.

- When the virus is not cleared **(1-2% of cases)**, the persistence of the virus can put people at risk for the development of papillomas (low-risk HPV) or cancer (high-risk HPV).

What is OPC?

- HPV-related OPC is the most common HPV-related cancer in the United States, recently surpassing cervical cancer.
- HPV-related OPCs most commonly arise in base of tongue and tonsillar region of the throat.
- Cancer in the other regions of the oropharynx (soft palate, uvula, and walls of the throat) commonly are caused by non-HPV-related factors, such as tobacco and alcohol.

How does an HPV-related OPC present?

The **most common** presentation for an HPV-related oropharyngeal cancer is a painless lump in the neck, which is a lymph node harboring the disease.

OTHER COMMON PRESENTATIONS INCLUDE:

- Sore throat
- Sensation of something stuck in throat
- Ear pain
- Pain with swallowing
- Trouble swallowing
- Change in voice

DIAGNOSIS OF THESE CANCERS CAN BE ACCOMPLISHED WITH:

- Fine needle aspiration of the involved lymph node
- Endoscopic evaluation
- Biopsy of the oropharynx by an otolaryngologist
- If no obvious tumor can be found, tonsil tissue in the throat may need to be removed in an attempt to find the cancer

How is HPV-related OPC treated?

- Involves surgery, radiation, or chemotherapy, either alone, or in combination with each other.
- Can result in significant short- and long-term side effects such as difficulty swallowing, change in speech, taste disturbance, dryness of the mouth and throat.
- A team of head and neck cancer specialists will determine the best treatment combination for patients based on the extent of the cancer and will result in least amount of side effects.

How can HPV-related OPC be prevented?

- Avoid infection with high-risk HPV. This can be done by avoiding exposure through safe sex practices.

- HPV vaccination also reduces the risk of contracting the virus in select populations.

WHAT IS THE HPV VACCINE AND WHO SHOULD GET IT?

- **Gardasil 9** is the only FDA approved HPV vaccine available in the United States
- This vaccine protects against **7 high-risk HPV types and 2 low-risk HPV types.**
- Per the FDA recommendations, boys and girls ages **9 through 45 years** should follow the same dosing schedule as young adults, ideally starting the series at **age 11 or 12.**
- The vaccine is given as a **2 shot series** (3 if started after the 15th birthday) and has been shown to be safe and effective.

What are the side effects of HPV vaccine?

MOST COMMON	OTHER COMMON	SEVERE
Pain, redness or swelling at the site of the injection	• Dizziness • Fainting • Nausea	Is extremely low risk and is similar to other vaccines

HEAD AND NECK CANCER ALLIANCE

AMERICAN HEAD & NECK SOCIETY 1998

www.headandneck.org

www.ahns.info

Throat Cancer from a Virus? Facts YOU should Know

Can I get throat cancer from a virus?

YES. Human Papillomavirus (HPV) is a common virus with more than **100 types** (only a few can cause cancer).

LOW-RISK HPV TYPE

Cause warts or bumps in either the:

- Mouth
- Throat
- Or genitals

HIGH-RISK HPV TYPE

Cause cancer in these places:

- **Women:** throat, cervix, vagina, anus
- **Men:** throat, anus, penis

How do I catch HPV?

HPV is passed by direct contact during sex

- Your partner must have HPV infection to catch it
- Oral, anal, or vaginal sex
- It may even be passed through open mouth kissing

FOR ABOUT *1-2 OF EVERY 100 PEOPLE,* THE VIRUS STAYS AND HAS A CHANCE TO CAUSE CANCER

- **Only for high-risk types**
- **Takes from 10-30 years or more years to get throat cancer**

Is HPV common?

- It is the most common sexually transmitted disease in America
- In most cases, the body fights off the virus

What is HPV-related throat cancer?

BY THROAT CANCER, WE MEAN THESE SPOTS:

- Tonsils
- The base (the very back) of the tongue

Head and Neck Cancer Alliance

www.headandneck.org

American Head & Neck Society

www.ahns.info

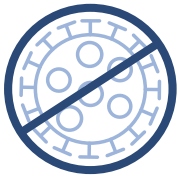
What do I do?

PREVENTION

Get the HPV Vaccination

- Get an HPV Vaccine called **Gardasil 9** for people in the United States
- Males and females ages **9 to 45**
- **Two or three shots,** depending on your age

Avoid Infection



- Use safe sex practices
- Avoid high numbers of sexual partners
- Use barrier protection, such as condoms

What are the side effects of HPV vaccine?

MOST COMMON	OTHER COMMON	SEVERE
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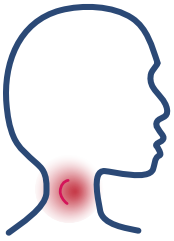
IF YOU THINK YOU MIGHT HAVE HPV-RELATED THROAT CANCER, SEE A HEAD AND NECK CANCER DOCTOR RIGHT AWAY

What do I do?

DETECTION AND TREATMENT

Signs you may have HPV-related throat cancer:



- Painless neck lump for more than 2 weeks
- Pain or problems swallowing
- Throat pain or ear pain
- Changes in your voice

The sooner the cancer is detected, the better your chances to stay alive

Treatments may include:

- Surgery
- Radiation
- Chemotherapy

Most cases of HPV-related throat cancer are treatable

ALLIANCE FOR
HPV FREE COLORADO

HPVFreeCO.org