# HPV Vaccination

## A GUIDE FOR PROVIDERS

Human Papillomavirus (HPV) vaccine is another important tool in cervical cancer prevention. According to the Centers for Disease Control and Prevention, HPV vaccination prevents new HPV infections but does not treat existing HPV infections or diseases.

HPV vaccine works best when given before any exposure to HPV. That is why the recommendations to begin vaccination begins at a young age.

HPV vaccination is given as a series of either two or three doses, depending on age at initial vaccination.

### VACCINE RECOMMENDATIONS

- Focusing on vaccination at ages 9-12 maximizes the effectiveness of the vaccine by providing protection to the patient before exposure to the virus.
- The Advisory Committee on Immunization Practices (ACIP) also recommends vaccination for everyone through age 26 years if not adequately vaccinated when younger.
- Vaccination is not recommended for everyone older than age 26 years. Some adults ages 27 through 45 years might decide to get the HPV vaccine based on discussion with their clinician, if they did not get adequately vaccinated when they were younger. HPV vaccination of people in this age range provides less benefit, for several reasons, including that more people in this age range have already been exposed to HPV.
- For adults ages 27 through 45 years, clinicians can consider discussing HPV vaccination with people who are most likely to benefit.

Additional information is available online from the US Preventive Services Taskforce:

- A and B Recommendations – US Preventive Services Taskforce
- HPV Vaccination Recommendations – CDC

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**The following pages include information and resources on:**

- Recommendations for who should receive the HPV vaccine, dosage, and scheduling
- Strategies for recommending the vaccine
- Provider scripts to talk about the HPV vaccine and
- Address common concerns
- Patient- and provider-level interventions to increase vaccination rates
- Links to patient materials
- Additional provider resources
- Independent Health's HPV immunization measures from our online HEDIS manual

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# HPV Vaccination

In the United States, HPV infects about 13 million people each year, and about 36,000 people will develop cancer as a result.[1] For both female and male patients, the HPV vaccine may prevent more than 90 percent of HPV-attributable cancers, such as oropharyngeal, cervical, anal, vulval, penile, and vaginal cancer,[2] and several types of genital warts.[3]

Several barriers to HPV vaccination exist at the patient, provider, and systems levels. However, providers can overcome or address many of these barriers. This toolkit includes practical suggestions for how to address barriers by communicating clearly with patients and adopting interventions such as provider prompts and standing orders. It is important to ensure that all staff in the practice setting understand that HPV vaccination is cancer prevention.

## What's in this Toolkit

- Recommendations for who should receive the HPV vaccine, dosage, and scheduling
- Strategies for recommending the vaccine
- Provider scripts to talk about the HPV vaccine and address common concerns
- Patient- and provider-level interventions to increase vaccination rates
- Links to patient materials
- Additional provider resources

## Action Items

- ☐ **Rehearse or develop a script to recommend the HPV vaccine.**
- ☐ **Familiarize yourself with your state/local immunization registry.**
- ☐ **If possible, enable EHR and patient portal reminders to tell you and your patients when they are due for HPV vaccination.**
- ☐ **If possible, implement standing orders for support staff to administer the HPV vaccine.**
- ☐ **Print and share patient- and parent-facing materials about HPV vaccination.**
- ☐ **Share best practices with colleagues.**

# HPV Vaccine Dosage and Schedule

## Who Should Be Vaccinated?

CDC recommends routine vaccination of preteens starting between ages 9-12 years, with routine catch-up through age 26. If you have a patient aged 27-45 years who has not received the HPV vaccine, use shared clinical decision-making to make a recommendation. Providers should not deny vaccination to any eligible patient who wants it.

**Recommended Dosing Schedule Based on Age of Initiation**

| Ages 9 – 12 | Ages 13 – 14 | Ages 15 – 26 | Ages 27 – 45 |
|---|---|---|---|
| On-time for routine vaccination | Late for routine vaccination | Late for routine vaccination | Shared clinical decision-making |
| 2 doses | 2 doses | 3 doses | 3 doses |

**Note: Patients who are immunocompromised should receive 3 doses of the HPV vaccine regardless of the age of initiation.**

## Dosing Schedule

| Recommended number of doses | Recommended dosing schedule | Minimum dosing interval |
|---|---|---|
| 2 | 0, 6-12 months | • Between first and second dosage, **5 months**<br>• If the second dose is given before 5 months, a third dose should be administered a minimum of **5 months** after the first dose and a minimum of **12 weeks** after the second dose |
| 3 | 0, 1-2, 6 months | • Between first and second dosage, **4 weeks**<br>• Between second and third dose, **12 weeks**<br>• Between first and third dose, **5 months** |

## Resources

**Visit the following resources from CDC for more information on HPV Vaccination:**

- Administering HPV Vaccine: Dosage and Schedule
- Advisory Committee on Immunization Practices Shared Clinical Decision-Making Recommendations

# Strategies for Effective Vaccine Conversations

- Integrate vaccination into any appointment.
  - To reduce missed opportunities, recommend HPV vaccination during all appointments, including appointments for injury or illness, and well child/teen visits.
- Use evidence-based approaches, such as the announcement approach[4] to make a strong recommendation.
  - Most patients and parents agree to vaccination when presented as, "Your child is/You are due for the HPV vaccine today."
  - Be prepared to explain the efficacy, safety, and importance of HPV vaccination, and emphasize that vaccination is part of whole health and cancer prevention.
- Bundle with other vaccines.
  - If the patient is due for other vaccines (e.g., Tdap and meningococcal at 11-12 year well child exam), sandwich the HPV vaccine recommendation in the middle of the others.
- Answer patients' and parents' questions.
  - Ask patients and parents what questions they have and address any concerns that are raised.

*Review Provider Scripts for ideas on how to recommend the vaccine and respond to questions and concerns.*

### Key Components of a Strong Recommendation

Providers should ensure that patients and parents know:

- **HPV vaccination prevents cancer.**
- It is important to vaccinate all patients regardless of gender or gender identity because HPV can cause cancer in both females *and* males.
- Focusing on vaccination at ages 9-12 maximizes the effectiveness of the vaccine by providing protection to the patient before exposure to the virus.

### Resources

**More information on recommending the HPV vaccine can be found here:**

- Adolescent #HowIRecommend Vaccination Video Series | CDC

## Provider Scripts

The following scripts may serve as a guide for your conversations related to the HPV vaccine.

### Recommending the Vaccine

- "Your child just turned 9, so they are due for the HPV vaccine, which protects against cancer."
- "I see that you have not received an HPV vaccine yet. I recommend we start that today."[5]
- "Today, your child is due for three vaccines: Tdap, HPV, and meningococcal."[5]

# Responding to Common Concerns

The following language may be helpful as you respond to potential concerns from parents and patients about the HPV vaccine. Tailor your response based on the needs of the parent or patient and consider sharing personal anecdotes, if you are comfortable doing so, as this may increase confidence among patients and parents.[6,7,8,9]

## Vaccination Recommendations

| Potential Concern | Response |
|---|---|
| "Why does my child/do I need the HPV vaccine?" | "The HPV vaccine prevents infections and precancers that eventually lead to cancer. The HPV vaccine helps protect people from ever developing those infections or precancers." |
| "Why do they need HPV vaccine at such a young age?" | "It is important to vaccinate your child before they are exposed to HPV, and studies show the vaccine works best to prevent cancer when given on time. The HPV vaccine is given in two or three doses, depending on when the first dose is given. If you start vaccination before age 15, they will only need two shots." |
| "Why do males need the HPV vaccine?" | "The most common HPV-related cancer in the United States is cancer of the back of the throat, which is more common in men than women. There is no screening to prevent it—the only prevention is with HPV vaccination. HPV infection can also lead to genital warts and cancers of the penis and anus." |
| "Only women and girls need to get the HPV vaccine; men and boys don't get it." | "Everyone can get HPV and HPV-related cancers. Cervical cancer is the most common cancer in women, and cancers of the back of the throat are most common in men." |
| "If a vaccine is not required, it's really not important." | "It is important that your child is protected from HPV, which can lead to cancers in men and women. HPV vaccines have been proven to prevent cancer."<br>*Note: To best support patients and parents in their decision-making, providers should be familiar with the vaccine requirements in their area.* |

## Safety

| Potential Concern | Response |
|---|---|
| "I'm worried about the side effects of the HPV vaccine. Do you think it's safe?" | "The HPV vaccine is approved by the Food and Drug Administration (FDA) and has been in use since 2006 with no serious side effects. Side effects can include a sore arm, and sometimes a headache or mild fever the next day. Rarely, people faint after receiving a shot. Because of this, we will have you/your child stay seated for a few minutes after vaccination." |
| "Can HPV vaccine cause infertility in my child?" | "There is no link between getting the HPV vaccine and infertility. The HPV vaccine may protect fertility by preventing cancer and cancer treatments, which may limit your child's ability to have children." |

### Effectiveness

| Potential Concern | Response |
|---|---|
| "How do you know the vaccine works?" | "We have data from the United States and several countries showing that the HPV vaccine prevents infections, precancers, and cancer."[10,11,12,13] |
| "The HPV vaccine is not effective at preventing cervical cancer." | "We have data from several countries, including the United States, showing that the HPV vaccine does prevent cancer."[10,11,12,13] |
| "The HPV vaccine doesn't protect against enough strains of human papillomavirus to be worth getting." | "The HPV vaccine prevents certain cancers and warts caused by nine types of HPV, which are linked to about 90 percent of HPV-related cancers and 90 percent of genital warts."[14] |

### Risk

| Potential Concern | Response |
|---|---|
| "I don't see the need for the vaccine. HPV is uncommon, and I don't think my child/I will get infected." | "About 80 percent of people will be infected with HPV at some point during their life. We can't predict whose infection will turn into cancer, but the vaccine can keep them from getting infected with HPV." |
| "Is my child/Am I really at risk for HPV?" | "HPV is a very common infection in women and men that can cause cancer. Starting the vaccine series today will help protect your child from the cancers and diseases caused by HPV." |
| "I'm worried my child will think that getting this vaccine makes it okay to have sex." | "Studies actually show people who got the vaccine engaged in safer sex behavior (starting later, using condoms, and getting tested for cervical cancer) than those who didn't."[15] |

## Resources

**More information to help describe the importance of HPV vaccination to parents can be found here:**

- Talking to Parents about HPV Vaccine Tip Sheet | CDC

# Provider Vaccination Interventions

The following provider-level interventions have been shown to support providers and increase vaccination rates among patients. Visit The Community Guide for more information and links to published research.

- **Provider Reminders:** Remind providers that an individual is due for vaccination using notes in client charts, alerts in electronic medical records, and other methods.
- **Standing Orders:** Use standing orders "to assess a patient's immunization status and administer vaccinations according to a protocol approved by an institution, physician, or other authorized provider."
- **Provider Assessment and Feedback:** Assess and give providers feedback on vaccine delivery to patients.
- **Immunization Information Systems:** Use immunization information systems to increase vaccination rates by identifying disparities in vaccination coverage, facilitating vaccine management, supporting other interventions, such as client reminders.

## Case Study

A provider-focused multi-component intervention was implemented in five health centers to increase HPV vaccination rates. The intervention included repeated contacts in the form of six to eight sessions; provider education focused on HPV-related cancers, vaccine efficacy and safety, and motivational interviewing principles for hesitant parents; individualized feedback for providers; and credits that could be used to maintain pediatric board certification. Overall, the rates of initiating HPV vaccination and completing the next needed HPV vaccine dose increased for both boys and girls.

- Learn more about this intervention.

# Patient-Level Vaccination Interventions

The following patient-level intervention has been shown to increase vaccination rates among patients. Interventions can be broad and intended to reach large groups of patients or tailored to focus on specific types of patients. Visit The Community Guide for more information and links to published research.

- **Client Reminder and Recall Systems:** Remind patients whose vaccinations are due and provide a recall to patients whose vaccinations are late through phone calls, letters, text messages, and other methods and include educational information about vaccination.

## Case Study

A culturally sensitive, evidence-based education and reminder intervention was used with parents of preteen girls in a private pediatric practice in an urban area to increase HPV vaccination uptake and dose completion. The intervention included an FAQ brochure, which was combined with a one-on-one script, and a provider call, prompted by an electronic alert that a patient was due for the second and third doses. Parents who received the intervention were 9.4 times more likely to vaccinate their children and 22.5 times more likely to complete the series.

- Learn more about this intervention.

# Patient Materials

The following patient education materials may be useful to help parents and patients understand more about the HPV vaccine. Review these materials and consider whether you would like to share these with patients or modify them to meet the unique needs of your patient population.

| | |
|---|---|
| Vaccines for Children Program (Spanish version) | Vaccines at 11 to 12 Years (Spanish version) |
| HPV Vaccine (Spanish version) | 7 Myths about the HPV Vaccine: HPV Vaccine Facts and the Science Behind Them |
| HPV Vaccine for Preteens and Teens (Spanish version) | Human Papillomavirus |
| HPV Vaccine Safety and Effectiveness (Spanish version) | Prevent 6 Cancers with the HPV Vaccine |

# Additional Provider Resources

The following trusted resources may be helpful to providers seeking to increase HPV vaccination rates.

## Fact Sheets and Information

- HPV Vaccination at 9-12 Years of Age | National HPV Vaccination Roundtable: *Evidence summary on HPV vaccination at ages 9-12.*
- HPV Iceberg Infographic | CDC: *Infographic on cancer protection provided by HPV vaccine.*
- HPV Vaccine Schedule and Dosing | CDC: *Information on HPV vaccination schedule and dosing.*
- HPV Vaccine Safety and Effectiveness Data | CDC: *Research and data about HPV vaccine safety and effectiveness.*
- Human Papillomavirus Vaccines | American Academy of Pediatrics (AAP): *Information and resources on AAP HPV vaccination recommendations.*
- Human Papillomavirus Vaccine (HPV) | American Academy of Family Physicians: *Information and guidance on making an HPV vaccination recommendation.*
- Educating Adult Patients: Vaccination Resources | CDC: *Ready-to-print patient education materials on adult vaccination.*
- Increase the Proportion of Adolescents Who Get Recommended Doses of the HPV Vaccine | Healthy People 2030: *Data on progress towards the Healthy People 2030 goal of increasing HPV vaccination among teens.*

## Toolkits and Guides

- HPV Educational Materials for Clinicians | CDC: *HPV education materials for use with office staff and parents.*
- HPV Vaccine Toolkit: Increasing HPV Vaccine Uptake Among Adolescent Clients in the Family Planning Setting | Reproductive Health National Training Center: *Toolkit for increasing HPV vaccination rates in family planning settings.*
- Cancer Prevention Through HPV Vaccination in Your Practice: An Action Guide for Physicians, Physician Assistants, and Nurse Practitioners | National HPV Vaccination Roundtable: *Action guide for physicians, physician assistants, and nurse practitioners to increase HPV vaccination rates.*
- Patient Care – Immunizations | AAP: *Information and resource guide on AAP immunization recommendations.*

## Trainings and Tools

- Flyers/Posters for Preteens and Teens | CDC: *Ready-to-print flyers and posters to promote HPV vaccination.*
- Recommended Child and Adolescent Immunization Schedule | CDC: *Immunization schedule for patients 18 years of age and younger.*
- Adolescent #HowIRecommend Vaccination Video Series | CDC: *Video library of seven clinicians' approaches to making HPV vaccination recommendations and answering parents' questions.*
- How Nurses and Medical Assistants Can Foster Immunization Culture | CDC: *Training for nurses and medical assistants on how to promote immunizations.*

- You are the Key to HPV Cancer Prevention | CDC: *Training for immunization providers on making effective HPV vaccination recommendations.*
- Contacts for Immunization Information System Immunization Records | CDC: *Contact directory for immunization information systems by U.S. state, territory, and FAS.*
- HPV Roundtable: Resource Library | National HPV Vaccination Roundtable: *HPV vaccination resource library.*
- Tools to Improve HPV Vaccination in Primary Care | HPV IQ at the UNC Gillings School of Public Health: *Tools for improving HPV vaccination through partnerships, using data, and incentivizing and training providers.*
- Top 10 Tips for HPV Vaccination Success | CDC: *Tip sheet for attaining and maintaining high HPV vaccination rates.*
- Provider Resources for Vaccine Conversations with Parents | CDC: *Resources and guidance for providers to navigate parent conversations for child vaccination.*

# References

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# IMMUNIZATIONS FOR ADOLESCENTS (IMA) [H]

(Corrections Accepted on Provider Portal)

## DESCRIPTION OF THE MEASURE:

Adolescents who turned 13 years old during the measurement timeframe who have had all the listed immunizations on or before their 13th birthday.

Timeframe: 1/1/2024-12/31/2024

**Applicable to Commercial and Medicaid**

## A COMPLIANT IMMUNIZATION RECORD INCLUDES ALL OF THE FOLLOWING:

- **1 Meningococcal Vaccine between 11th-13th birthday**
- **1 Tdap Vaccine between 10th-13th birthday**
- **2 or 3 Human Papillomavirus (HPV) between their 9th-13th birthday**

## TIPS FOR SUCCESS WITH IMA MEASURE:

- Parent's refusal of vaccinations should be documented for tracking purposes; however, refusal of vaccinations is deemed non-compliant for HEDIS reporting.
- All Immunizations should be entered into the NYS Immunization Registry (NYSIIS).
- Please include in the record any immunizations from all sources, including previous providers, hospitals, and local clinics.
- All immunizations must be completed within the above timeframes and on or before the child's 13th birthday.
- Educate office staff to schedule visits prior to the child's 13th birthday.
- Educate parents/guardians on the importance of having their child immunized and keeping office appointments.
- Advise that HPV vaccine can help prevent cancer and start the education about HPV early.
- **If 2 dose HPV vaccine given, the 2 doses must be at least 146 days apart.**
- Ensure that Meningococcal vaccine is not given until the child has already turned 11.

## REQUIRED EXCLUSIONS FOR THIS MEASURE:

***Hospice Exclusion (see pages 17-18)**
***Members who died during the measurement year**

## EXAMPLE CODING TIPS FOR IMA:

**Anaphylactic Due to Diphtheria, Tetanus or Pertussis**

- **SNOMED Codes:** 428281000124107, 428291000124105

**Encephalitis Due to Diphtheria, Tetanus or Pertussis**

- **SNOMED Codes:** 192710009, 192711008, 192712001

**HPV Vaccine**

- **CPT Codes:** 90649, 90650, 90651

**Meningococcal Vaccine Administered**

- **CPT Codes:** 90619, 90733, 90734

**Tdap Vaccine Administered**

- **CPT Code:** 90715