You Are the Key to HPV Cancer Prevention

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- CDC did not accept commercial support for this continuing education activity.
Objectives

1. Describe the burden of HPV infection and disease in the United States.
2. Define the importance of HPV vaccination in cancer prevention.
3. Describe recommendations for HPV vaccination for adolescents and adults.
4. Describe the rationale for the routine HPV vaccination at age 11 or 12 years.
5. List two components of an effective HPV vaccine recommendation.
6. Identify relevant and compelling information to share with parents about HPV vaccine to help inform their decision to vaccinate their child.
7. Locate current immunization resources to increase knowledge of the team’s role in program implementation for improved team performance.
8. Implement disease detection and prevention health care services (e.g., smoking cessation, weight reduction, diabetes screening, blood pressure screening, immunization services) to prevent health problems and maintain health.
HPV INFECTION & DISEASE: UNDERSTANDING THE BURDEN
HPV Types Differ in Their Disease Associations

~40 Types

Mucosal sites of infection

High risk (oncogenic)
HPV 16, 18 most common

Cervical Cancer
Anogenital Cancers
Oropharyngeal Cancer
Cancer Precursors
Low-Grade Cervical Disease

~ 80 Types

Cutaneous sites of infection

Low risk (non-oncogenic)
HPV 6, 11 most common

Genital Warts
Laryngeal Papillomas
Low-Grade Cervical Disease

“Common”
Hand and Foot Warts

~ 80 Types
HPV Infection

- Most females and males will be infected with at least one type of mucosal HPV at some point in their lives
  - Estimated 42 million Americans currently infected
  - 13 million persons with a new infection/year in the US
  - HPV infection is most common in people in their teens and early 20s
- Most people will never know that they have been infected
## Number of HPV-Associated and HPV-Attributable Cancer Cases Per Year, U.S., 2014–2018

<table>
<thead>
<tr>
<th>Cancer site</th>
<th>Number of HPV-associated cancers</th>
<th>Percentage probably caused by any HPV type</th>
<th>Estimated number probably caused by any HPV type*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>Cervix</td>
<td>12,200</td>
<td>91%</td>
<td>11,100</td>
</tr>
<tr>
<td>Vagina</td>
<td>863</td>
<td>75%</td>
<td>600</td>
</tr>
<tr>
<td>Vulva</td>
<td>4,191</td>
<td>69%</td>
<td>2,900</td>
</tr>
<tr>
<td>Penis</td>
<td>1,365</td>
<td>63%</td>
<td>0</td>
</tr>
<tr>
<td>Anus**</td>
<td>7,288</td>
<td>91%</td>
<td>4,500</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>20,236</td>
<td>70%</td>
<td>2,300</td>
</tr>
<tr>
<td>TOTAL</td>
<td>46,143</td>
<td>79%</td>
<td>21,400</td>
</tr>
</tbody>
</table>

*Estimates were rounded to the nearest 100. Estimated counts might not sum to total because of rounding.

**Includes anal and rectal squamous cell carcinomas

Sources: Data are from cancer registries participating in CDC’s National Program of Cancer Registries and/or NCI’s Surveillance, Epidemiology, and End Results program that met data quality criteria for 2011–2015, covering 100% of the U.S. population. The analysis and methods were based on: Viens, et al. MMWR Morb Mortal Wkly Rep. 2016. https://www.cdc.gov/cancer/uscs/pdf/USCS-DataBrief-No26-December2021-h.pdf

*Includes anal and rectal squamous cell carcinomas

For each cancer type, we estimated HPV-attributable cancers by multiplying the number of cancer cases by the percentage attributable to HPV based on a genotyping study. We estimated that 36,500 cancers (79%) were attributable to HPV each year during 2014–2018. Of these, we estimated that 33,700 cancers could have been prevented by the 9-valent HPV vaccine, including 29,500 caused by HPV types 16 and 18 and 4,200 caused by HPV types 31/33/45/52/58. HPV-negative cancers are not shown in the graph; it is estimated that about 10% of cervical and anal cancers, 30% of oropharyngeal, vaginal, and vulva cancers and 40% of penile cancers are HPV-negative.
HPV-Associated Anal* Cancer Rates by Sex, Race, and Ethnicity, United States, 2014–2018

*Includes anal and rectal squamous cell carcinomas.
https://www.cdc.gov/cancer/hpv/statistics
https://gis.cdc.gov/Cancer/USCS/#/RiskFactors/
HPV-Associated Oropharyngeal Cancer Rates by Sex, Race, and Ethnicity, United States, 2014–2018

[Bar chart showing age-adjusted rates (cases per 100,000 persons) for different races and ethnicities for men and women.]

https://www.cdc.gov/cancer/hpv/statistics
HPV-Associated Vulvar Cancer Rates by Race, and Ethnicity, United States, 2014–2018

Age-adjusted rate (cases per 100,000 persons)

<table>
<thead>
<tr>
<th>Race</th>
<th>Ethnicity</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Races Combined</td>
<td></td>
<td>2.1</td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>2.3</td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td>1.5</td>
</tr>
<tr>
<td>American Indian Alaska Native</td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td></td>
<td>0.5</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td></td>
<td>2.2</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td>1.2</td>
</tr>
</tbody>
</table>
HPV-Associated Cervical Cancer Rates by Race, and Ethnicity, United States, 2014–2018

Age-adjusted rate (cases per 100,000 persons)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Rate (cases per 100,000 persons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Races Combined</td>
<td>7.3</td>
</tr>
<tr>
<td>White</td>
<td>7.2</td>
</tr>
<tr>
<td>Black</td>
<td>8.1</td>
</tr>
<tr>
<td>American Indian Alaska Native</td>
<td>6.0</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>5.8</td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>7.1</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9.0</td>
</tr>
</tbody>
</table>
Cervical Cancer

- Cervical cancer is the most common HPV-associated cancer among women
  - Estimated 569,847 new cases and 311,365 deaths worldwide in 2018
  - Each year approx. 12,000 new cases and 4,000 deaths in the U.S.
- Half of cervical cancers occur in women <50 years
  - A quarter of cervical cancers occur in women 25-39 years

https://www.cdc.gov/cancer/uscs/
Cervical Precancer in the United States

- ~196,000 high grade cervical lesions every year
HPV VACCINES AND VACCINE RECOMMENDATIONS
HPV Vaccines

- Recombinant L1 capsid proteins that form “virus-like” particles (VLP)
- Non-infectious and non-oncogenic
- Produce higher levels of neutralizing antibody than natural infection
# HPV Vaccine Comparison

## HPV Types Included in Vaccine

<table>
<thead>
<tr>
<th>HPV Types Included in Vaccine</th>
<th>6</th>
<th>11</th>
<th>16</th>
<th>18</th>
<th>31</th>
<th>33</th>
<th>45</th>
<th>52</th>
<th>58</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bivalent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quadrivalent</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-valent</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

- **Genital warts**: 73% of cervical cancers probably caused by HPV and 81% of all HPV-attributable cancers
- **11% of HPV-attributable cancers**

*HPV YOU ARE THE KEY TO CANCER PREVENTION*
HPV Vaccine Recommendations

CDC recommends routine vaccination at age 11 or 12 years to prevent HPV cancers

- The vaccination series can be started at age 9 years.
- Two doses of the vaccine are recommended if the series is started before the 15th birthday.
- The second dose of the vaccine should be administered 6 to 12 months after the first dose.

HPV Vaccine Recommendations: Catch-Up/Late

- Vaccination for everyone through age 26 years if not previously adequately vaccinated.
- Vaccination is not recommended for everyone older than 26 years.
  - However, some adults ages 27 through 45 years may decide to get the HPV vaccine based on discussion with their clinician, if they were not adequately vaccinated when they were younger.
  - HPV vaccination of people in this age range provides less benefit, as more have already been exposed to HPV.

### HPV Vaccine Dosing Schedule, United States

<table>
<thead>
<tr>
<th>Population</th>
<th>Number of vaccine doses</th>
<th>Interval between doses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons initiating vaccination at 9 through 14 years, except persons with immunocompromising conditions</td>
<td>2</td>
<td>0, 6–12 months*</td>
</tr>
<tr>
<td>Persons initiating vaccination at 15 through 26 years and persons with immunocompromising conditions initiating vaccination at 9 through 26 years</td>
<td>3</td>
<td>0, 1–2, 6 months+</td>
</tr>
</tbody>
</table>

* In a 2-dose schedule of HPV vaccine, the minimum interval between first and second doses is 5 months.
+ In a 3-dose schedule of HPV vaccine, the minimum intervals are 4 weeks between the first and second doses, 12 weeks between the second and third doses, and 5 months between the first and third doses.

- Persons are considered adequately vaccinated if they completed a recommended schedule with 9vHPV, 4vHPV, or 2vHPV vaccine.
HPV Vaccine Administration

- Administer HPV vaccines via intramuscular (IM) injection
  - Needle size: 1- to 1½- inch, 22- to 25-gauge
  - Site: Deltoid muscle in the upper arm

- Follow proper injection practices
  - Use aseptic technique
  - Use a new needle and syringe for each injection

- Administer at the same medical visit as other adolescent vaccines

CDC Vaccine Administration: [https://www.cdc.gov/vaccines/hcp/admin/admin-protocols.html](https://www.cdc.gov/vaccines/hcp/admin/admin-protocols.html)
HPV Vaccine: Contraindications and Precautions

- HPV vaccines **should not** be given to anyone who has had a **severe allergic reaction** to a previous dose or to a vaccine component, including yeast.

- HPV vaccination is not recommended for women who are known to be pregnant; **wait until after pregnancy to vaccinate**.

- HPV vaccination may be delayed in persons with moderate or severe acute illness with or without fever.

https://www.cdc.gov/vaccines/hcp/acip-recs/general-recs/contraindications.html
HPV Vaccine Storage and Handling

- Store HPV vaccine in a refrigerator between 2°C - 8°C (36°F - 46°F)
- Store HPV vaccines:
  - In the original packaging with the lids closed
  - In a clearly labeled bin and/or area of the storage unit
- Do not freeze the vaccine
<table>
<thead>
<tr>
<th>System</th>
<th>Collaborators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine Adverse Event Reporting System (VAERS)</td>
<td>CDC and FDA</td>
<td>Frontline, spontaneous reporting system to detect potential vaccine safety issues</td>
</tr>
<tr>
<td>Vaccine Safety Datalink (VSD)</td>
<td>CDC and 9 integrated health care systems</td>
<td>Large, linked database system used for active surveillance and research ~13 million members (~4% of US pop)</td>
</tr>
<tr>
<td>Clinical Immunization Safety Assessment (CISA) Project</td>
<td>CDC and 7 academic centers</td>
<td>Expert collaboration that conducts individual clinical vaccine safety assessments and clinical research</td>
</tr>
</tbody>
</table>
Evaluating and Monitoring: HPV Vaccine Safety in the United States

- Monitoring of VAERS reports
  - Clinical review of serious reports and other prespecified adverse events
    - Premature ovarian insufficiency, postural orthostatic tachycardia syndrome, pregnant persons
  - Data mining to identify disproportional reporting

- Vaccine Safety Datalink
  - Near real-time monitoring of prespecified outcomes
  - Evaluation of specific adverse events
    - Venous thromboembolism, Guillain-Barre Syndrome, primary ovarian insufficiency, long-term risk of developing type-1 diabetes, spontaneous abortion

- Manufacturer post-marketing commitments
  - Observational study to further characterize the safety and long-term studies
  - Pregnancy registry

https://www.cdc.gov/vaccinesafety/vaccines/hpv-vaccine.html
HPV Vaccine Safety in the United States

- We have more than 15 years of HPV vaccine safety data.
- With more than 135 million doses of HPV vaccines distributed in the United States, there are robust data showing that HPV vaccines are safe.
- As with all vaccines, CDC and FDA continue to monitor and evaluate the safety of HPV vaccines.
- Clinicians can reassure parents who may have concerns about HPV vaccination.

https://www.cdc.gov/hpv/hcp/vaccine-safety-data.html
HPV Vaccine Adverse Reactions

- Reactions after vaccination can include:
  - Injection site reactions: pain, redness, and/or swelling in the arm where the shot was given
  - Systemic: fever, headaches, nausea, muscle or joint pain
- Life threatening allergic reaction can occur after any vaccine, including HPV vaccines
- Brief fainting spells (syncope) and related symptoms (such as jerking movements) can happen soon after any injection, including HPV vaccine
  - Patients should be seated (or lying down) during vaccination and remain in that position for 15 minutes


HPV Vaccine Safety and Effectiveness Data | CDC
HPV Vaccine Safety and Effectiveness Data

More than 15 years of monitoring and research have accumulated reassuring evidence that human papillomavirus (HPV) vaccination provides safe, effective, and long-lasting protection against cancers caused by HPV infections.

Data from Clinical Trials

Each HPV vaccine—9-valent HPV vaccine (Gardasil® 9), quadrivalent HPV vaccine (Gardasil®), and bivalent HPV vaccine (Cervarix®)—went through years of strict safetytesting before the U.S. Food and Drug Administration (FDA) licensed it. Each vaccine was found to be safe and effective in clinical trials.

Gardasil 9 was studied in clinical trials with more than 15,000 females and males.

Gardasil was studied in clinical trials with more than 29,000 females and males.

https://www.cdc.gov/hpv/hcp/vaccine-safety-data.html
IMPACT OF HPV VACCINATION PROGRAM
Impact of HPV Vaccination Programs

- Post-licensure evaluations are important to assess real-world effectiveness of vaccines
- Population impact against early and mid outcomes has been reported in many countries

CIN; cervical intraepithelial neoplasia
HPV Vaccine Impact in the United States

- Declines observed in:
  - Vaccine-type infections
  - Genital warts
  - Cervical precancers
  - Juvenile-onset recurrent respiratory papillomatosis
Vaccine-Type HPV Prevalence Among Females, NHANES


Prevalence, %

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Pre-vaccine era 2003-2006</th>
<th>2007-2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>14-19 years</td>
<td>56% decrease</td>
<td></td>
</tr>
<tr>
<td>20-24 years</td>
<td></td>
<td>56%</td>
</tr>
<tr>
<td>25-29 years</td>
<td></td>
<td>13%</td>
</tr>
<tr>
<td>30-34 years</td>
<td></td>
<td>11%</td>
</tr>
</tbody>
</table>
Vaccine-Type HPV prevalence Among 14–19-year-old Females

- **non-Hispanic white**: 11.3% (2003–2006); 1.5% (2013–2016)
- **non-Hispanic black**: 17.1% (2003–2006); 4.4% (2013–2016)
- **Mexican American**: 10.0% (2003–2006); 1.3% (2013–2016)

Cervical Precancer Incidence Rates among Screened Women, HPV IMPACT Project, 2008-2015

Cervical precancer rates decreased significantly in screened women aged 18–20 and 21–24 years.
Systematic Review and Meta-Analysis: Population-Level Impact of HPV Vaccination

- Review of 65 studies in 14 high-income countries
- After ~5-8 years of vaccination
  - Among 13- to 19-year-old girls
    - HPV 16/18 prevalence decreased by 83%
    - Anogenital warts decreased by 67%
  - Among 20- to 24-year-old women
    - HPV 16/18 prevalence decreased by 66%
    - Anogenital warts decreased by 54%
  - Among 20- to 24-year-old women screened for cervical cancer
    - Cervical precancers decreased by 31%
- Evidence of herd effects
  - Anogenital warts decreased among men – in countries where men were not vaccinated

Changes in genital wart diagnoses during the first 8 years in countries using the quadrivalent HPV vaccine
JORRP by Birth Year and Incidence Based on National or State-Level Denominator Data

JORRP, juvenile-onset recurrent respiratory papillomatosis; Meites, et al. *Clin Infect Dis.* 2021
HPV Vaccine Effectiveness Against Cervical Cancer

Sweden started vaccination program with quadrivalent HPV vaccine in 2007

- Evaluation using linked population and health registers
- Risk of cervical cancer
  - 88% lower if vaccinated at age <17 years
  - 53% lower among women who had been vaccinated at age 17–30 years
HPV Vaccine Duration of Protection

- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection
  - Available evidence indicates protection for \textit{at least} 12 years
  - Multiple studies are in progress to monitor

HPV Vaccination Is Safe, Effective, and Provides Lasting Protection

HPV Vaccine Is SAFE
- Benefits far outweigh any potential risks
- Safety studies findings for HPV vaccination are reassuring and similar to MenACWY and Tdap vaccine safety reviews

HPV Vaccine WORKS
- Population impact against early and mid outcomes has been reported in multiple countries

HPV Vaccine Protection LASTS
- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection
HPV VACCINATION COVERAGE
HPV Vaccination Coverage among Adolescents Aged 13-17 Years, NIS-Teen, United States, 2006-2020

UTD, up-to-date
HPV Vaccination Coverage among Adolescents Aged 13-17 Years, by Sex, NIS-Teen, United States, 2007-2020

Impact of Eliminating Missed Opportunities by Age 13 Years in Adolescents Born in 2006

The chart shows the percent vaccinated for HPV-1 for different groups:

- HPV-1 (all adolescents): 69%Actual, 93% Achievable
- HPV-1 (boys): 70%Actual, 93% Achievable
- HPV-1 (girls): 69%Actual, 93% Achievable

Source: CDC unpublished, NIS-Teen 2015 - 2019
Estimated Vaccination Coverage among Teens Aged 13-17 Years by Urbanicity

*statistically different from adolescents living in mostly urban area (p<0.05)

≥1 HPV Vaccination Coverage in Rural Areas Consistently Lower than in Urban

Fewer Parents in Rural Areas Report Receiving a Recommendation for HPV Vaccine from Their Provider

Source: CDC unpublished, NIS-Teen 2020
Vaccination Coverage Higher among Those Reporting a Recommendation

Received recommendation?

Yes 81%

Vaccinated 81%

Not vaccinated 19%

No 19%

Vaccinated 52%

Not vaccinated 48%

Source: CDC unpublished, NIS-Teen 2020
Top Reasons for Not Vaccinating against HPV

- Not recommended
- Safety concern/side effects
- Not needed or necessary
- Lack of knowledge
- Not sexually active

Source: CDC unpublished, NIS-Teen 2020
Parents Place Similar Value on Vaccines

Adapted from Healy, et al. Vaccine. 2014
Clinicians Underestimate the Value Parents Place on HPV Vaccine

Median Values

- **Meningitis**: Parent 9.4, Clinician's Estimate 9.2
- **Hepatitis**: Parent 9.5, Clinician's Estimate 9.2
- **Pertussis**: Parent 9.5, Clinician's Estimate 9.3
- **Influenza**: Parent 9.3, Clinician's Estimate 7.0
- **HPV**: Parent 9.3, Clinician's Estimate 5.2
- **Adolescent Vaccines**: Parent 9.2, Clinician's Estimate 7.8

Adapted from Healy, et al. Vaccine. 2014
TALKING ABOUT HPV VACCINATION: FRAMING THE CONVERSATION
Provider Perceptions of Parental Beliefs Might Not Be Reliable

Both perceived and real concerns of parents can influence how clinicians recommend HPV and other vaccines and may change their vaccination recommendations and behaviors.

Strong Evidence Base Supports the Importance of an Effective Recommendation

- HPV vaccination coverage was higher among patients whose parents reported receiving a recommendation.
  - **An effective recommendation from you is the main reason parents decide to vaccinate**
- Many mothers in focus groups stated they trust their child’s clinician and would get the vaccine for their child as long as they received a recommendation from the clinician.

Make an Effective Recommendation: SAME WAY, SAME DAY

Group all the adolescent vaccines

- Recommend HPV vaccination the same way you recommend Tdap and meningococcal vaccines

Recommend HPV vaccine TODAY

- Recommend HPV vaccination the same day you recommend Tdap and meningococcal vaccines

Bundled Recommendation

Your preteen needs three vaccines today to protect against meningitis, HPV cancers, and pertussis.

Brewer et al. Pediatrics. 2017
Now that Sophia is 11, she is due for three vaccines. These will help protect her from the infections that can cause meningitis, HPV cancers, and pertussis. We’ll give those shots today.
Bundled Recommendation – Example 2

Now that Sophia is 11, she is due today for three important vaccines. The first is to help prevent an infection that can cause meningitis, which is very rare, but potentially deadly. The second is to prevent a very common infection, HPV, that can cause several kinds of cancer. The third is the tetanus booster which also protects against pertussis, so she doesn’t get whooping cough.

We’ll give those shots at the end of the visit. Do you have any questions for me?
How do you Recommend HPV Vaccine?

Video with Lacey Eden, NP

“
How do you make the HPV vaccine recommendation, and why do you say it that way?

#HowIRecommend

Lacey Eden, NP, Describes How She Recommends HPV Vaccine - YouTube
Speaking to Parents

- Many parents simply accept this bundled recommendation.
- Some parents may be interested in vaccinating, but still have questions.
- Interpret a question as they need additional reassurance from YOU, the clinician they trust with their child’s health care.
- Ask parents about their main concern and be sure you are addressing the right concern.
Q: Why does my child need HPV vaccine?

HPV vaccination is important because it prevents cancer.

That’s why I’m recommending that your child start the HPV vaccine series today.
Q: What cancers are caused by HPV infection?

Persistent HPV infection can cause cancer of the cervix, vagina, and vulva in females, cancer of the penis in males, and cancers of the anus and the throat in both.

We can help prevent infection with the HPV types that cause these cancers by starting the HPV vaccine series today.
Q: Is my child really at risk for HPV?

HPV is a very common virus that infects both women and men.

We can help protect your child from the cancers and diseases caused by the virus by starting HPV vaccination today.
Q: Why at 11 or 12 years old?

When should the bike helmet go on?
A. Before they get on their bike
B. When they are riding their bike in the street
C. When they see the car heading directly at them
D. After the car hits them
Most Clinicians Wait Too Long to Make Strong Recommendation for HPV Vaccine

Q: Why at 11-12 years old? Video with Dr. Margot Savoy

"What do you tell parents who think their kids don’t need the HPV vaccine at age 11 or 12?"

#HowIRecommend

CDC HPV VACCINE IS CANCER PREVENTION

Talking to Parents Who Think Their Kids Don’t Need HPV vaccine at Age 11 or 12: Dr. Savoy - YouTube
Q: I’m just worried that my child will perceive this as a green light to have sex.

Studies tell us that getting HPV vaccine doesn’t make kids more likely to start having sex.

I made sure my child (or grandchild, etc.) got HPV vaccine, and I recommend we give your child her/his first shot today.
Q: How long can we wait and still give just two doses?

The two-dose schedule is recommended if the series is started before the 15th birthday.

However, I don’t recommend waiting to give this cancer-preventing vaccine. Older teens have busier schedules and it becomes more difficult to schedule an appointment.

It’s best to start the series today so your child is protected as soon as possible.
Q: I’m concerned about the safety of the vaccine. I read online that HPV vaccine isn’t safe. Do you really know if it’s safe?

As of 2021, more than 135 million doses of HPV vaccines have been distributed in the United States since they were licensed. Data continue to show the vaccines are safe and effective.
Is HPV Vaccine Safe?
Video with Dr. Linda Fu

What do you say to parents who have HPV vaccine safety concerns?

#HowIRecommend

Addressing Parents’ Safety Concerns around HPV Vaccine: Dr. Linda Fu - YouTube
Is HPV Vaccine Safe?
Video with Dr. Alix Casler

"What do you say to parents who have HPV vaccine safety concerns?"

#HowIRecommend

Addressing Parents’ Safety Concerns around HPV Vaccine: Dr. Alix Casler - YouTube
Q: Can HPV vaccine cause future fertility problems?

There is no evidence to suggest that getting HPV vaccine will affect future fertility.

However, women who develop an HPV precancer or cancer might need treatment that could limit their ability to have children.
Q: Why should I get my child the HPV vaccine if it’s not required?

School-entry requirements don’t always reflect the current recommendations to keep your child healthy and often focus on prevention of highly contagious diseases.

HPV vaccine, along with other adolescent vaccines, will provide your child with the best protection.
Q: Would you give HPV vaccine to your kids?

Yes, I have given HPV vaccine to my child. I strongly believe this cancer-preventing vaccine is very important.

Also, the American Academy of Pediatrics, the American Academy of Family Physicians, NIH cancer centers, and CDC agree that HPV vaccination is very important for your child.
Q: When do we need to come back? (<15-years-old)

Since your child is younger than 15, she will need one more dose in 6 months to a year.

When you check out, please make an appointment for the second shot and put that appointment on your calendar before you leave today.
Q: When do we need to come back? (≥15-years-old)

Since your child is already 15, she will need two more doses: a second one in 1-2 months and a third shot is due 6 months from today.

When you check out, please make an appointment for about 1-2 months from now and another one 6 months from now, and put those appointments on your calendar before you leave today.
If a Parent Has Questions After Your Recommendation

- Listen to and respond to parents’ questions.
  - Sometimes parents simply want *your* answers to their questions.
  - Your willingness to listen to parents’ concerns will play a major role in building trust in you and your recommendation.
- If you encounter questions you do not know the answer to or information from sources you are unfamiliar with, it is best to acknowledge the parent’s concerns and share what you *do* know.

https://www.cdc.gov/vaccines/hcp/conversations/talking-with-parents.html
If a Parent Declines Today...

- End the conversation with at least one action you both agree on.
- Refusal today may not be final. Revisit the conversation at the next opportunity.
- Because waiting to vaccinate is the risky choice, many pediatricians ask the parent to sign a declination form.
If parents decline HPV vaccination...
Dr. Todd Wolynn

"What do you say to parents who decline or refuse the HPV vaccine?"

#HowIRecommend
Q: Should I get the vaccine if I’m between the ages of 27 and 45 years?

Most sexually active adults have already been exposed to HPV, although not necessarily to all the HPV types targeted by vaccination. At any age, having a new sex partner is a risk factor for getting a new HPV infection. People who are already in a long-term, mutually monogamous relationship are not likely to get a new HPV infection.

HPV vaccination prevents new HPV infections but does not treat existing infections or diseases.
RESOURCES FOR HEALTHCARE PROVIDERS
#HowIRecommend Videos

HowIRecommend Vaccination Video Series | CDC

The #HowIRecommend video series features short, informative videos from clinicians like you. These videos explain the importance of vaccination, how to effectively address questions from parents about vaccine safety and effectiveness, and how clinicians routinely recommend same-day vaccination to their patients.

Watch Videos
“Can I Ask You a Question?” Videos

Pediatricians Answer Questions About the HPV Vaccine | CDC
Keep All Staff on the Same Page

- Align communication with mission
  - Give staff a cancer-prevention mission: HPV vaccination prevents cancer-causing infections & precancers
  - Reinforce HPV vaccination as the norm, just like parents chose to vaccinate their child as infants
  - All staff should use clear, consistent messages
  - Share key points
  - Use the Talking to Parents handout
  - Educate staff about HPV vaccine recommendations including schedule, administration, storage, and handling

Keep All Staff Up To Date on Recommendations and Best Practices

- Multiple education products available free through the CDC website:
  - Immunization courses (webcasts and online self-study)
  - Webinars
  - You Call the Shots self-study modules
  - Continuing education available

CDC immunization education and training: www.cdc.gov/vaccines/ed/index.html
Ensure ALL Your Patients are Protected

- Immunization Quality Improvement for Providers (IQIP) provides strategies and technical assistance for VFC providers
  - Check with health department and professional organization for immunization quality improvement program that works for your practice

- Know your vaccination rates
  - Clinic-level rates are great
  - Individual clinician rates are even better

- Finding and monitoring your vaccination rates
  - Electronic Health Records (EHR)
  - Immunization Information Systems (IIS)

https://www.cdc.gov/vaccines/programs/iqip/at-a-glance.html
References

HPV VACCINE IS CANCER PREVENTION

AND

YOU

ARE THE KEY!
The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.