The number of recommended doses is based on the age at the 1st dose.

- 2–dose series: Children starting the series before their 15th birthday
  (unless they are immunocompromised, then give a 3-dose series)
- 3–dose series: Children starting the series on or after their 15th birthday

Ages for Vaccination

- Minimum age: 9 years
- Routine age: 11-12 years
- Recommended through age 26 years if not vaccinated previously.
- HPV vaccination for individuals ages 27 through 45 can be considered based on shared clinical decision making.

The HPV Vaccine Schedule

<table>
<thead>
<tr>
<th>Population</th>
<th># of doses</th>
<th>Routine schedule</th>
<th>Minimum intervals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Started series at age 9 through 14 years, except immunocompromised persons</td>
<td>2</td>
<td>0, 6 to 12 months</td>
<td>5 months between doses</td>
</tr>
<tr>
<td>Started series at age 15 through 26 years, and immunocompromised persons (any age)</td>
<td>3</td>
<td>0, 1 to 2, 6 months</td>
<td>4 weeks between doses 1-2 12 weeks between doses 2-3 5 months between doses 1-3</td>
</tr>
</tbody>
</table>

3 doses of HPV vaccine are recommended for persons with immunocompromising conditions that might reduce cell-mediated or humoral immunity. Examples include:

- B lymphocyte Ab deficiencies
- HIV infections
- Transplantation
- Immunosuppressive therapy
- T lymphocyte complete or partial defects
- Malignant neoplasm
- Autoimmune disease

The 2-dose series is enough for persons with conditions that don’t affect HPV immunity. Examples include:

- Asthma
- Asplenia
- Diabetes mellitus
- Sickle cell disease
- Chronic granulomatous disease
- Chronic disease of liver, lung, kidneys
- Heart disease
- CNS barrier defects (eg, cochlear implant)
- Complement & persistent complement component deficiency

- ACIP has not recommended routine additional vaccination with 9vHPV for persons who have completed a 3-dose series of another HPV vaccine, but this is likely to be safe. Additional vaccination with 9vHPV may not be covered by insurance.
- Prolonged intervals: If the vaccination series is interrupted, the series does NOT need to be restarted.
- Too short intervals
  - In a 2-dose series: If the 2nd dose is given <5 months after the 1st, a 3rd dose should be administered at least 12 weeks after the 2nd dose and at least 5 months after the 1st dose.
  - In a 3-dose series: If a vaccine dose is given at less than the minimum interval, it should be re-administered after another minimum interval has been met.
- HPV vaccine may be administered starting at age 9.
- Pregnancy testing is not needed before HPV vaccination. HPV vaccination is not recommended during pregnancy, but there is no evidence that it poses harm. If a woman is found to be pregnant after starting the series, no intervention is needed; delay the remaining doses until after the pregnancy.
- For more information, see https://www.cdc.gov/mmwr/volumes/68/wr/mm6832a3.htm
Scheduling Human Papillomavirus (HPV) Vaccination

Test yourself – Test your staff

For each of the following cases, jot down how many more doses of HPV vaccine are needed and then, check your answers below.

Case 1
• Visit: On his 15th birthday
• Previous doses: None

Case 2
• Visit: Age 13 years
• Previous doses:
  1. 4vHPV given at age 12 years
  2. 9vHPV given 6 months later
• Medical history: Sickle cell disease

Case 3
• Visit: Age 13 years
• Previous doses:
  1. 4vHPV given at age 11 years
  2. 9vHPV given 2 months later

Case 4
• Visit: Age 15 years
• Previous doses:
  1. 4vHPV given at age 11 years
  2. 4vHPV given at age 13 years

Case 5
• Visit: Age 11 years
• Previous doses:
  1. 4vHPV given at age 9 years
  2. 9vHPV given at age 10 years
• Medical history: IBD

Case 6
• Visit: Age 15 years
• Previous doses:
  1. 9vHPV given on 15th birthday
  2. 9vHPV given 2 months later
  3. 9vHPV given 2 months after 2nd dose