Highlight
on VACCINATION 4 TEENS

Q&A for Conversations with Parents/Guardians and Teen Patients

This guide provides facts about teen vaccinations—specifically those recommended for teens and adolescents—to help family physicians, along with their care teams and office staff, proactively talk about teen immunization and address any potential questions or concerns parents/guardians or teens may have.

Talking Points to Help Office Staff Proactively Remind Parents/Guardians and their Teens about Immunization

For 16- and 17-year-old visits, check the child's immunization records in advance. Initiate the following conversation and talking points if a teen is not up to date on their immunizations:

"We noticed your teen is due for vaccinations today to help protect against meningococcal meningitis (MenACWY), human papillomavirus (HPV) cancers, pertussis (whooping cough), and flu [or name which vaccinations are needed]. While you're waiting for the doctor, I want to walk through with you at least four vaccines recommended by [Dr.'s name] and the Centers for Disease Control and Prevention (CDC). We can give the vaccines to [teen's name] at the end of the visit."[1,2]

If you need more information to help convince parents to vaccinate, here are talking points for the vaccinations listed above:

Meningococcal meningitis (MenACWY) vaccine

- Meningococcal meningitis is a rare, but a serious and sometimes deadly disease that develops very quickly.[3] Of those who survive, 11-19% are left with serious medical problems like losing a leg or arm, going deaf, or having permanent nerve damage.[4] Teens are believed to be at an increased risk for catching meningococcal meningitis because of things they often do, like sharing water bottles, living in dorms, and kissing.[5,6]
- For the best protection against meningococcal meningitis, and because protection from the vaccine can wear off within five years, children should receive the vaccine (MenACWY) at age 11 or 12 and get a second dose at age 16.[7]
- According to the CDC, most children aged 11-12 (85%) received the first dose of the MenACWY vaccine during 2016-17, but only 44% received the recommended second dose.[8]

  Note: Questions related to the meningitis B vaccine are addressed on page 4.

Human papillomavirus (HPV) vaccine

- HPV can cause various cancers in both boys and girls.[9] The CDC estimates that each year almost 14 million individuals (including teens) become infected with HPV.[10] In 2015 alone, more than 43,000 women and men developed an HPV-associated cancer.[11]

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- For the best protection, the CDC's Advisory Committee on Immunization Practices (ACIP) recommends a two-dose series if the first dose is received before age 15. If the first dose is given before age 15, then the CDC recommends two doses of HPV vaccine at least six months apart. Teens and young adults who start the series later, between the ages of 15-26, are recommended to receive three doses to help protect against cancer-causing HPV infection.[12] While the HPV vaccine is recommended for boys and girls at age 11 or 12, so they are protected before ever being exposed to HPV, teens who are not yet vaccinated should be as soon as possible.[10]
- According to the CDC, nearly 66% of adolescents aged 13-17 receive the first dose of the HPV vaccination, but only 49% completed the vaccination series.[11]

Tetanus, diphtheria, acellular pertussis (Tdap) vaccine

- Tetanus causes painful tightening of the muscles, usually all over your body. Diphtheria causes a thick covering in the back of the throat and can lead to breathing problems, paralysis, heart failure, and even death. Pertussis (whooping cough) causes coughing spells and can lead to pneumonia, seizures, brain damage, and death.[13,14,15]
- At age 11 or 12, all preteens should get one Tdap shot (the booster shot for DTaP) since protection wears off.[13]
- According to the CDC, the majority of teens (88%) received the Tdap shot during 2016-17, but there is still room for improvement.[8]

Flu vaccine

- Flu can lead to fever, cough, sore throat, body aches, fatigue, and more. Serious cases may lead to hospitalization and even death.[16]
- While healthy preteens and teens can get very sick from the flu, preteens and teens who have certain health problems, such as diabetes or asthma, are at greater risk for complications from the virus.[17]
- Preteens and teens should get the flu vaccine every year, ideally by October, but vaccination can continue through January or even later.[17]
- During the 2017-18 flu season, less than half of adolescents aged 13-17 were vaccinated against the flu.[18]

Do you have any questions about any of these vaccines that I can help answer?

Distribute and/or follow up via email with one of the informational pieces from the Highlight on VACCINATION 4 TEENS Resource Library. If your practice website is updated with information, you can also direct parents and patients to your website.

For parents and patients requesting additional information about recommendations, direct them to www.cdc.gov/vaccines/who/teens.

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Responses to Questions about Vaccinations

Misperceptions about vaccinations continue to spread, resulting in misinformed concern about the safety and side effects of vaccines. Listed below are some questions you may receive, along with responses with credible citations that can help you, or your office staff, respond and discuss.

General questions

1. **I hear that vaccines cause autism. Is that true?**
   Vaccines do not cause autism.[19] This debate started when a study—which has since been retracted—linked autism to the measles, mumps, and rubella (MMR) vaccine. Following publication, an independent panel reviewed the study and found it was flawed. In fact, the panel said the author of the study conducted it in a way that was "dishonest, irresponsible and misleading."[20] In addition, there have been multiple studies that have shown no link between vaccination and autism.[19]

2. **Do vaccines have negative side effects?**
   The United States' long-standing vaccine safety system ensures that vaccines are as safe as possible.[21] Most vaccine side effects are usually minor and temporary, such as soreness at the site of injection or mild fever. Brief fainting spells may also happen after any medical procedure, including vaccination. Sitting or lying down for about 15 minutes after vaccination can help prevent fainting, and injuries caused by a fall.[22] The CDC, World Health Organization (WHO), and other health organizations all agree that vaccines are the best defense we have against serious, preventable, and sometimes deadly diseases.[23,24]

3. **Can someone actually get the disease from a vaccine?**
   The CDC says that with an inactivated vaccine, it isn't possible. Dead viruses or bacteria can't cause disease. With live vaccines, such as those that help protect against measles and chickenpox, it sometimes can seem like a mild case of disease is appearing, but this is actually the vaccine working.[25]

4. **Vaccines are not necessary, particularly if you maintain good hygiene. Is that true?**
   If people are not vaccinated, diseases that have become uncommon, such as polio and measles can quickly reappear in a community. Yes, good hygiene is important and can help protect people from infectious diseases, but many infections can spread regardless of how hygienic we are.[26]

5. **As long as my child has had one dose of a vaccine, he/she is protected enough from that disease. Is that true?**
   This is not always the case. For example, protection from the first dose of the MenACWY vaccine, which helps protect against meningococcal disease caused by strains of serogroups A, C, W, and Y, can wear off within five years in approximately half of teens who receive it at age 11 or 12. A second dose for the time during which they are at increased risk—around age 16—is recommended.[7] Teens also need a three-dose series of the HPV vaccine to help protect against the disease and the cancers it can cause if they don't receive the first dose until age 15 or older.[12]

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Meningitis-specific questions

1. **Why does my teen need a second dose of meningitis vaccine? Didn't he/she already get vaccinated against meningitis when he/she was younger?**
   The CDC recommends a first dose of the MenACWY vaccine to help protect against meningococcal meningitis at age 11 and a second dose at ages 16 to 18. The second dose is needed because protection from the vaccine can wear off within five years. The two doses help protect teens during the years they are at increased risk.[7]
2. **Why are teens at an increased risk for meningitis?**
   Common, everyday activities such as kissing, sharing utensils and water bottles, and living in close quarters, such as dorms can increase the risk.[5,6]
3. **If the disease is rare, why do parents/guardians need to see that their teens are vaccinated against it?**
   The CDC reported about 370 cases of meningococcal disease in the U.S. in 2016.[27] Although rare, meningococcal disease develops very quickly and can claim the life of an otherwise healthy person in as little as one day after the first symptoms appear.[3] Of those who survive, 11-19% are left with serious medical problems, including losing arms, legs, fingers, or toes; brain damage; and/or deafness.[4]
4. **Who should not receive meningococcal vaccine?**
   People who are moderately or severely ill or have had a serious allergic reaction to a previous dose of either meningococcal vaccine, or one of its components, should not receive the meningococcal vaccine. There is also a lack of information about the potential risks of this vaccine for a woman that is pregnant or breastfeeding. Women who are pregnant should be vaccinated if she is at risk of meningococcal disease.[28]
5. **What is the meningitis B vaccine? Does my teen need both?**
   There are two meningitis B vaccines approved by the Food and Drug Administration (FDA).[29] The CDC recommends the meningitis B vaccine for certain groups of people who are at increased risk for serogroup B meningococcal disease.[30] For example, students on college campuses that have recently experienced outbreaks of serogroup B meningitis are recommended to receive the meningitis B vaccine.[31]

Along with the parent/guardian, assess if this is a vaccine to move forward with for an adolescent or teen. Additional information from the CDC is available at www.cdc.gov/vaccines/hcp/vis/vis-statements/mening-serogroup.html.

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HPV-specific questions

1. **The HPV vaccine is relatively new compared to other vaccines. How do you know it's safe and works?**
   The HPV vaccine has been carefully studied for more than 10 years by medical and scientific experts. Most vaccine side effects are usually minor and temporary, such as soreness at the site of injection or mild fever. Ongoing studies are showing that HPV vaccination works very well and has decreased HPV infection, genital warts, and cervical precancers in young people in the years since it has been available.[32]
2. **What diseases are caused by HPV?**
   Certain HPV types can cause cancer of the cervix, vagina, and vulva in women; cancer of the penis in men; and cancers of the anus and the throat in both women and men.[33] We can help prevent infection with the HPV types that cause these cancers with the HPV vaccine.[1]
3. **Is my child really at risk for HPV?**
   HPV is a very common and widespread virus that infects both females and males.[33] We can help protect your child from the cancers and diseases caused by the virus by starting HPV vaccination.[1]
4. **Could my teen perceive receiving the HPV vaccine as a green light to have sex?**
   Numerous research studies have shown that getting the HPV vaccine does not make kids more likely to be sexually active or start having sex at a younger age.[1]
5. **Why do boys need the HPV vaccine?**
   HPV infection can cause cancers of the penis, anus, and throat in men and it can also cause genital warts.[1,33] The HPV vaccine can help prevent the infection that leads to these diseases.[1]

Additional information from the American Cancer Society is available at www.mysocietysource.org/sites/HPV/ResourcesandEducation/Lists/Clearinghouse/PatientEducationTools.aspx.

Tdap-specific questions (if the patient did not receive the recommended dose of Tdap between the ages of 11-15):

1. **What diseases does the Tdap vaccine protect against?**
   The vaccine helps protect against tetanus, diphtheria, and pertussis (whooping cough).[2]
2. **How often does my teen need to receive a Tdap vaccine?**
   All adolescents and teens aged 11-18 should receive a single dose of Tdap vaccine if they have completed the recommended childhood vaccination series against tetanus, diphtheria, and pertussis, and have not received Tdap. While this vaccine is typically recommended at age 11 or 12, you can receive the vaccine later in the teen years.[2]
3. **Can teens who are pregnant still receive a Tdap vaccine?**
   Yes, the CDC's Advisory Committee on Immunization Practices (ACIP) recommends the use of Tdap during every pregnancy.[34] The recommended time to get the shot is between the 27th and 36th weeks of pregnancy.[34]

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Flu-specific questions:

1. **I never received a flu vaccine at his/her age. Why does my teen need the flu vaccine?**
   Influenza is a serious disease that can lead to hospitalization and sometimes even death. Every flu season is different, and the flu can affect people differently. Even healthy people can get very sick from the flu and spread it to others.[16]
2. **Why is a flu vaccine needed every year?**
   A flu vaccine is needed every season for two reasons. First, the vaccination wears off over time, so an annual vaccine is needed to be protected from the flu. Second, flu viruses are constantly changing, so the flu vaccine is often updated each year to keep up with changing flu viruses. For the best protection, everyone six months and older, with rare exception, should get vaccinated every year.[35]
3. **Does the flu vaccine work right away?**
   No. It takes about two weeks after you receive the vaccine to develop protection against the flu.[35]
4. **I heard you can still get seasonal flu even after receiving a flu vaccine. Why should my teen receive it then?**
   Yes, there is still a possibility you could get the flu even if you get vaccinated. The ability of the flu vaccine to help protect a person depends on different factors, including the age and health of the person getting the vaccine, as well as the similarity or "match" between the viruses used to make the vaccine and those spreading in the community. If the viruses in the vaccine and the flu viruses in the community are closely matched, vaccine effectiveness is higher. If they are not closely matched, vaccine effectiveness can be reduced. However, it's important to remember that even when the viruses are not closely matched, the vaccine can still help protect many people and prevent flu-related complications. The vaccine can provide some protection (called cross-protection) against different, but related flu viruses.[35]
5. **Can the flu vaccine give my teen the flu?**
   No, a flu vaccine cannot cause flu illness.[35]
6. **What is the difference between the flu shot and nasal spray?**
   Most flu shots are made from killed flu viruses. This vaccine is a shot that is given in the arm. The nasal spray flu vaccine is made with live, but weakened, flu virus. This vaccine is sprayed up the nose. Preteens and teens with chronic health conditions, like asthma, diabetes, or heart disease should not get the nasal spray vaccine and instead get the flu shot.[17]

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