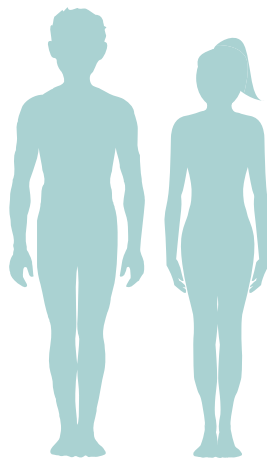


# A Guide to Adolescent Immunizations

Flip Chart for Pediatric Offices and Parents



American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN®



## Acknowledgments

This flip chart was supported by the Cooperative Agreements, Numbers 5U66IP000671 and 5H23IP000952, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

We request the following citation be used when referencing this document:

American Academy of Pediatrics. *A Guide to Adolescent Immunizations*. Itasca, IL: American Academy of Pediatrics; 2019

For information about AAP Immunization Initiatives, contact

American Academy of Pediatrics  
345 Park Blvd  
Itasca, IL 60143

**E-mail: [immunize@aap.org](mailto:immunize@aap.org)**

The immunization schedule is updated annually. Please refer to the current schedule. Some patients may have contraindications to vaccines. Always take individual circumstances and medical history into account.

## Primary Authors

Sharon Humiston, MD, MPH, FAAP

Katie Milewski, MPH, American Academy of Pediatrics Program Manager, Childhood Immunization Practice Improvement

## Additional Contributors

Cynthia Rand, MD, MPH, FAAP

Stanley Schaffer, MD, MS, FAAP

Elizabeth Sobczyk, MSW, MPH (Former Staff)

Peter Szilagyi, MD, MPH, FAAP

© 2019 American Academy of Pediatrics.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without prior permission from the publisher (you may fax the permissions editor at 847/434-8780 or e-mail [permissions@aap.org](mailto:permissions@aap.org)). First edition published 2015; second, 2018; third, 2019.

Printed in the United States of America

11-119/1019



# RESOURCES

To learn more, you can scan the QR codes throughout the document or visit

## AAP Immunization Family Pages



[www.aap.org/immunization](http://www.aap.org/immunization)



[www.healthychildren.org](http://www.healthychildren.org)

## CDC Pink Book



[www.cdc.gov/vaccines/pubs/pinkbook/index.html](http://www.cdc.gov/vaccines/pubs/pinkbook/index.html)

## CDC Vaccine Information Statements



[www.cdc.gov/vaccines/hcp/vis/index.html](http://www.cdc.gov/vaccines/hcp/vis/index.html)

For information about AAP Immunization Initiatives, contact

American Academy of Pediatrics  
345 Park Blvd  
Itasca, IL 60143

**E-mail: [immunize@aap.org](mailto:immunize@aap.org)**

Information in this flip chart has been adapted from American Academy of Pediatrics (AAP) and Centers for Disease Control and Prevention (CDC) resources.

The American Academy of Pediatrics is an organization of 67,000 primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists dedicated to the health, safety, and well-being of infants, children, adolescents, and young adults.

The information contained in this publication should not be used as a substitute for the medical care and advice of your pediatrician. There may be variations in

treatment that your pediatrician may recommend based on individual facts and circumstances.

Listing of resources does not imply an endorsement by the American Academy of Pediatrics (AAP). The AAP is not responsible for the content of external resources. Information was current at the time of publication.

Products are mentioned for informational purposes only and do not imply an endorsement by the American Academy of Pediatrics.

This publication has been developed by the American Academy of Pediatrics. The contributors are expert authorities in the field of pediatrics. No commercial involvement of any kind has been solicited or accepted in the development of the content of this publication.

Every effort is made to keep *A Guide to Adolescent Immunizations* consistent with the most recent advice and information available from the American Academy of Pediatrics.



# IMMUNIZATION SCHEDULE

## Preteens and teens need vaccines too!

When preteens are 9 to 12 years of age, they should receive vaccines to protect against the following diseases:

Vaccine	Disease	When to Get the Vaccine?
Meningococcal conjugate	Meningococcal sepsis and meningococcal meningitis	At ages 11–12 Adolescents need a booster dose at age 16.
Human papillomavirus (HPV)	HPV-related cancers and precancers	At ages 11–12 (can start at age 9 years) Like with some newborn and infant vaccines, >1 dose of this vaccine is needed.
Tetanus, diphtheria, pertussis (Tdap)	Tetanus, diphtheria, and pertussis	At ages 11–12
Influenza (IIV) or Influenza (LAIV)	Influenza (flu)	Annually beginning at age 6 months (IIV) Annually beginning at age 2 years (LAIV) Children ages 6 months to 8 years may need two doses.

### Why get these vaccines?

- These vaccines help protect the preteens or teens who get the vaccines.
- When preteens and teens are protected by vaccines, it can help prevent the spread of these diseases and can protect their families and communities.

### These vaccines are recommended by the Centers for Disease Control and Prevention and the following professional membership organizations:

- American Academy of Pediatrics
- American Academy of Family Physicians
- American College of Obstetricians and Gynecologists

### These vaccines are safe.

- Before being licensed, each vaccine has been carefully studied by scientific experts.
- The Centers for Disease Control and Prevention continually monitors the safety of all vaccines, which are held to the highest standards.
- Like other medicines, vaccines can have side effects.
- Most side effects are mild (eg, sore arm).
- Serious side effects (eg, severe allergic reaction) are rare.

### Catch-up

- If your teen did not receive one or more of these vaccines between ages 9 to 12, she/he should receive the vaccines now.

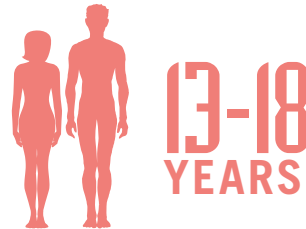
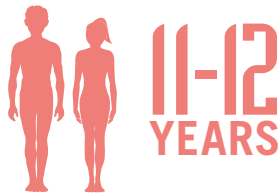


# IMMUNIZATION SCHEDULE

## RECOMMENDED IMMUNIZATIONS

FOR  
CHILDREN,  
TEENS,  
AND YOUNG  
ADULTS

**11-18**  
YEARS OF AGE



TETANUS, DIPHTHERIA, PERTUSSIS (Tdap) VACCINE

Tdap VACCINE

HUMAN PAPILLOMAVIRUS (HPV) VACCINE SERIES\*

HPV VACCINE SERIES

MENINGOCOCCAL CONJUGATE VACCINE DOSE 1

CATCH-UP FIRST DOSE

BOOSTER DOSE AT AGE 16

FLU VACCINE (YEARLY)

PNEUMOCOCCAL VACCINE

MENINGOCOCCAL B VACCINE

*HAEMOPHILUS INFLUENZAE* TYPE B (Hib) VACCINE

HEPATITIS A (HepA) VACCINE SERIES

HEPATITIS B (HepB) VACCINE SERIES

INACTIVATED POLIO VACCINE (IPV) SERIES

MEASLES, MUMPS, RUBELLA (MMR) VACCINE SERIES

VARICELLA VACCINE SERIES

These shaded boxes indicate when the vaccine is recommended for children or teens unless your doctor tells you that your child or teen cannot safely receive the vaccine.

These shaded boxes indicate that the vaccine should be given if a child or teen is catching up on missed vaccines.

These shaded boxes indicate that the vaccine is recommended for children with a health condition that puts them at high risk for serious diseases. Note that healthy children or teens can get the HepA series if they are catching up on vaccines. See vaccine-specific recommendations at [www.cdc.gov/vaccines/hcp/acip-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html).

\*Can start HPV vaccine at age 9



# WHY VACCINATE?

**It is important to vaccinate preteens and teens.**

**Your preteen or teen can get infected with germs that cause serious diseases.**

**Having a preteen or teen sick with these diseases can result in**

- Office visits, hospitalizations, and even death
- Interference with the teen's busy life, his/her education, and his/her ability to work
- Parents' lost time from work

**The diseases from which vaccines can protect your preteen or teen include**

## *Flu*

- Fever
- Cough
- Sore throat
- Headache
- Chills
- Muscle aches
- Fatigue
- Death

## *Human papillomavirus*

- Genital warts
- Cancers affecting the
  - » Back of the throat, base of the tongue, and tonsils (in males and females)
  - » Anus (in males and females)
  - » Cervix, vulva, and vagina (in females)
  - » Penis (in males)

*All of these cancers can be deadly.*

## *Meningococcal disease*

- Meningitis: an infection of the brain and spinal cord
- Meningococcal sepsis: a very serious blood infection
- Death
- Blindness
- Deafness
- Loss of limbs
- Other long-term problems

## *Tetanus (also known as lockjaw)*

- Severe muscle stiffness that is very painful
- Spasms of the breathing muscles, which can lead to death

## *Diphtheria*

- A serious throat infection that can block the airway

## *Pertussis (also called whooping cough)*

- Severe coughing
- Difficulty breathing
- Death, especially if a baby catches it



# WHY VACCINATE?

## WITHOUT VACCINATION, YOUR CHILD OR TEEN COULD...



MISS  
SCHOOL AND  
TIME WITH  
FRIENDS.



SPEND MORE  
TIME AT THE  
DOCTOR'S  
OFFICE.



HAVE ILLNESS  
THAT CAUSES  
YOU TO MISS  
WORK AND LOSE  
INCOME.



MISS AFTER-  
SCHOOL  
ACTIVITIES  
AND SPORTS.



HAVE  
EXTENDED  
HOSPITAL  
VISITS.

VACCINES PROTECT AGAINST THESE DISEASES, SYMPTOMS,  
HEALTH PROBLEMS, AND OUTCOMES.

### FLU

- Fever
- Cough
- Sore throat
- Headache
- Chills
- Muscle aches
- Fatigue
- Death

### MENINGOCOCCAL Disease

- Meningitis: an infection of the brain and spinal cord
- Meningococcal sepsis: a very serious blood infection
- Death
- Blindness
- Deafness
- Loss of limbs
- Other long-term problems

### HPV Human Papillomavirus

- Genital warts
- **Cancers** affecting the
  - » Back of the throat, base of the tongue, and tonsils (in males and females)
  - » Anus (in males and females)
  - » Cervix, vulva, and vagina (in females)
  - » Penis (in males)

*All of these cancers can be painful and deadly.*

### TETANUS, DIPHTHERIA, AND PERTUSSIS

- Tetanus (also known as lockjaw)
  - » Severe muscle stiffness that is very painful
  - » Spasms of the breathing muscles, which can lead to death
- Diphtheria
  - » A serious throat infection that can block the airway
- Pertussis (also called whooping cough)
  - » Severe coughing
  - » Difficulty breathing
  - » Death, especially if a baby catches it



# FLU VACCINE

## Why vaccinate preteens and teens against flu?

- The main reason for preteens and teens to get a flu vaccine is to protect themselves.
- For most people, the flu can cause
  - » Fever
  - » Cough
  - » Sore throat
  - » Headache
  - » Chills
  - » Muscle aches
  - » Fatigue
- Some people can get much sicker. For example, flu can lead to pneumonia.
- Flu symptoms can last a week or longer.
- Flu can cause death.
  - » About 100 children and teens die each year of flu. Most of them were healthy people before getting the flu.
  - » Each year, flu is estimated to cause the deaths of between 12,000 to 79,000 people (of all ages), enough people to fill a football arena.
- Vaccinating your preteen or teen can prevent the spread of flu to others in the family who are most likely to become very sick from it, such as babies and elderly people.

## Flu vaccine

- There are 2 types of seasonal flu vaccines.
  - » Inactivated (killed) vaccine that is given by an injection (shot)
  - » Live attenuated (weakened) vaccine that is sprayed into the nose
- Everyone 6 months and older, including preteens and teens, should receive a flu vaccine every year. A flu vaccine is needed every year because
  - » Flu viruses change most years.
  - » Yearly vaccination helps keep immunity up. Without vaccination, immunity can fade within a year.
- It takes about 2 weeks to be fully protected after getting the flu vaccine.
  - » It is best to get a flu vaccine as soon as it is available (in late summer or early fall), to be protected for the entire season.

- » Flu season continues through at least March and sometimes later, so your preteen or teen should still get the vaccine even if he/she missed getting it at the start of the season.

## Common side effects of the flu vaccine

Flu vaccines have been given to hundreds of millions of people for more than 50 years and have a very good safety record.

### After vaccination

- Older kids often have a headache or feel tired on a normal day, so it is hard to say which symptoms that come after the vaccination are caused by it.
- If preteens or teens are sore from their shot, they may take acetaminophen (eg, Tylenol) or ibuprofen (eg, Motrin, Advil).

### Vaccine side effects

- Mild side effects following (inactivated) flu shot can include
  - » Soreness, redness, or swelling where the shot was given
  - » Hoarseness
  - » Sore, red, or itchy eyes
  - » Cough
  - » Fever (<1 person in 100)
  - » Headache and muscle aches (<1 person in 100)
  - » Itching (<1 person in 100)
  - » Fatigue (<1 person in 100)
- Severe side effects are extremely rare.

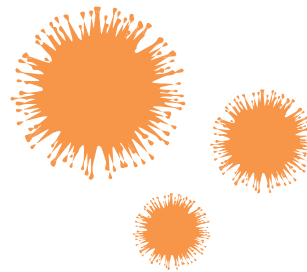




# FLU VACCINE

2 TYPES OF

## FLU VACCINES



SHOULDER SHOT



INACTIVATED VACCINE  
GIVEN BY INJECTION

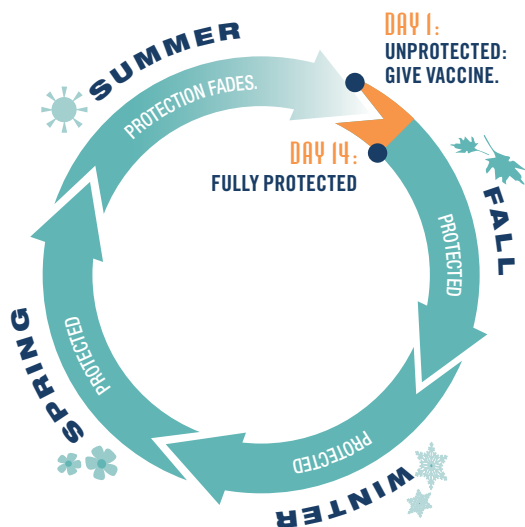


LIVE ATTENUATED  
(WEAKENED)  
VACCINE SPRAYED  
INTO THE NOSE

NOSE SPRAY



## RECOMMENDED VACCINATION TIMELINE



- It is best to **get a flu vaccine as soon as it is available** (in late summer or early fall), to be protected for the entire season.
- **Flu season continues through at least March and sometimes later.** Pediatricians keep vaccinating in case your preteen or teen didn't receive the vaccine at the start of the season.



It takes about **2 WEEKS**  
**to be fully protected**  
after getting the flu vaccine.



# FLU VACCINE QUESTIONS

## **Even if my child or teen gets the flu, isn't it a mild illness?**

- Flu can be serious and anyone can become sick with flu and experience serious complications. In the United States, each year between 12,000 and 79,000 people, enough to fill a football stadium, die of the flu. This number includes more than 100 children and teens.
- Kids, teens, and adults who are active and healthy can also get very sick from flu and spread it to others. Some people can be infected with the flu virus and spread it to others before they have any symptoms.

## **Can't my child or teen wait and get vaccinated when or if flu hits our community?**

- It is best to get vaccinated before flu begins to spread.
- It takes about 2 weeks for the flu vaccine to provide full protection, so the sooner you get vaccinated, the more likely it is that you will be fully protected when or if flu comes to your community.

## **Do flu vaccines give people the flu?**

- No! Flu vaccines can't give you the flu.
- Some people get a flu-like illness shortly after they get the flu vaccine. There are a few reasons for this.
  - » You may be infected by a virus other than flu. The flu vaccine only prevents illnesses caused by flu viruses.
  - » You may have been infected by a flu virus before the vaccine took effect. It takes about 2 weeks after you receive the vaccine for your body to build protection against the flu.
  - » You may be infected by a strain of the flu virus that is different from those in this year's vaccine.



# MORE INFORMATION ON FLU VACCINE

AS MANY AS

# 19,000 PEOPLE

## DIE OF THE FLU EACH YEAR, ENOUGH TO FILL A FOOTBALL STADIUM.

AS  
MANY  
AS

### 19,000 DEATHS

THIS NUMBER INCLUDES  
MORE THAN 100 CHILDREN  
AND TEENS.

DEATHS

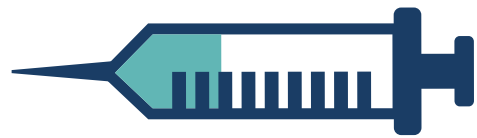
960,000  
HOSPITALIZATIONS

49 MILLION FLU ILLNESSES



**MORE THAN 100**  
CHILDREN AND TEENS  
DIE EACH YEAR.

# FLU VACCINES CAN'T GIVE YOU THE FLU.



Some people get a flu-like illness shortly after they get the flu vaccine. There are a few reasons for this.

- You may be infected by a virus other than flu. The flu vaccine only prevents illnesses caused by flu viruses.
- You may have been infected by a flu virus before the vaccine took effect. It takes about 2 weeks after you receive the vaccine for your body to build protection against the flu.
- You may be infected by a strain of the flu virus that is different from those in this year's vaccine.



# HUMAN PAPILLOMAVIRUS VACCINE

## About human papillomavirus

- HPV stands for human papillomavirus.
- HPV can cause several types of cancers and genital warts.
- It leads to cancers that can develop in males and females affecting the
  - » Back of the throat, base of the tongue, and tonsils (in males and females)
  - » Anus (in males and females)
  - » Cervix, vulva, and vagina (in females)
  - » Penis (in males)

*All of these cancers can be deadly.*

- HPV is spread by intimate skin-to-skin contact or intercourse.
- Exposure to this virus is very common.
  - » Experts estimate that almost all sexually active people will acquire HPV at some point in their lives.
  - » Of new HPV cases, 3 out of 4 are found in people at ages 15 to 24 years.
  - » About 79 million people in the United States have HPV. That is about one-quarter of the people in the United States.
- In most people, the virus goes away on its own, but if it lasts it can lead to cancer and other diseases.
- There is no medicine to cure an HPV infection.

## Why vaccinate against HPV?

- Getting HPV vaccine can prevent your preteen or teen from getting many of the strains of HPV that cause cancers. The vaccine that is currently available also prevents genital warts.
- This vaccine works and is long-lasting.

## HPV vaccine

- Who should be vaccinated?
  - » All 11- to 12-year-olds and teens who have not been vaccinated should receive the HPV vaccine series.
    - It may be given as early as 9 years of age.
  - » The AAP recommends starting the series between 9 and 12 years, at an age that the provider deems optimal for acceptance and completion of the vaccination series, because the immune response to the vaccine is highest at these ages.
    - HPV vaccination is recommended for all individuals through age 26 years who are not adequately vaccinated.
      - » The dosing schedule is as follows:

Schedule	Recommended For	Dose	Routine Timing of Dose	Minimum Intervals
2-dose	Persons beginning human papillomavirus (HPV) vaccination before their 15th birthday (with normal immunity)	1st	Today	Minimum interval between the first and second dose is 5 months
		2nd	6–12 mo after first dose	
3-dose	Persons beginning HPV vaccination at age $\geq 15$ and those who are immunocompromised	1st	Today	The following minimum intervals should be maintained: <ul style="list-style-type: none"><li>• Between doses 1 and 2: 4 wk</li><li>• Between doses 2 and 3: 12 wk</li><li>• Between doses 1 and 3: 5 mo</li></ul>
		2nd	1–2 mo after first dose	
		3rd	6 mo after first dose	

- Routine schedule
  - » To work, HPV vaccine must be given before a person is exposed to the virus.
- All recommended doses of the HPV vaccine are needed for the body to build up enough immunity to protect against infection. This is also true of many of the vaccines that babies get.

## Common side effects of the HPV vaccine

HPV vaccine is very safe. Since the vaccine was licensed in 2006, no serious safety concerns have been linked to HPV vaccination.

### After vaccination

- Some preteens or teens may faint after any medical procedure, including vaccination.
- To prevent a fainting injury caused by falling, the vaccinated preteen or teen may remain seated or lying in the office for 15 minutes after the shot.
- If preteens or teens are sore from their shot, they may take acetaminophen (eg, Tylenol) or ibuprofen (eg, Motrin, Advil).

### Vaccine side effects

- Mild to moderate side effects
  - » Pain, redness, or swelling where the shot was given
  - » Fever
    - Mild (100°F or 37.8°C)

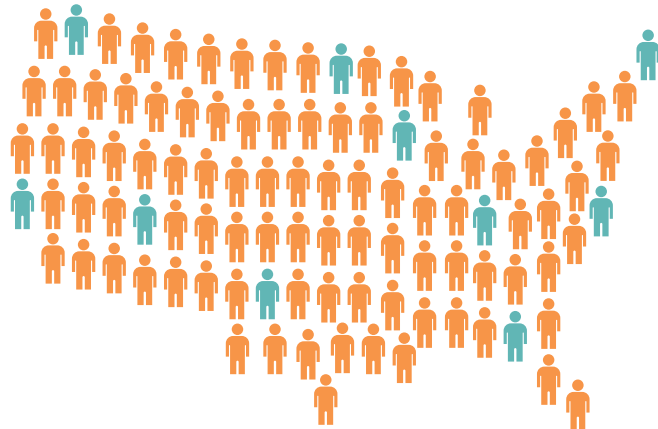
### Severe side effects



- Serious illnesses do not happen more commonly in people who received the vaccine compared with those who did not.



# HUMAN PAPILLOMAVIRUS VACCINE

## HUMAN PAPILLOMAVIRUS (HPV)



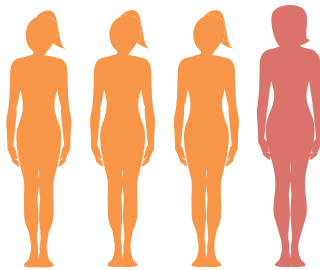
 = Has **never** had HPV  
 = Has **had** or **will** get HPV

EXPERTS  
ESTIMATE  
**ALMOST** **ALL**

SEXUALLY ACTIVE PEOPLE WILL ACQUIRE  
**HPV** AT SOME POINT IN  
THEIR LIVES.

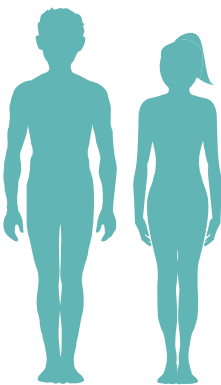
OF NEW HPV CASES,

**3** OUT OF **4**



ARE  
**FOUND** IN PEOPLE  
**15-24** YEARS OF AGE.

### THE HPV VACCINE



- Prevents preteens and teens from getting or carrying strains of HPV that cause cancer and genital warts
- Works and is long-lasting

### WHO SHOULD GET VACCINATED?

- Boys and girls 9–12 years of age and teens should receive **all recommended doses** of HPV vaccine.
- To work, the HPV vaccine **MUST** be given **BEFORE** a person is exposed to the virus.

# HPV VACCINE QUESTIONS

## Why is HPV given at ages 9 to 12?

- After receiving human papillomavirus (HPV) vaccine, preteens make more infection-fighting antibodies than teens. That is why only 2 doses of the vaccine, instead of 3, are recommended at ages 9 to 12.
- Early vaccination prevents substantially more cases of precancer than late vaccination.
- Current evidence shows that HPV vaccination does not wear off!
- HPV vaccine works only if the series is complete before a person is infected. Almost no 9- to 12-year-olds have HPV infection.
- Every visit after the age of 9 is an opportunity to provide the vaccination to preadolescents or adolescents.

## Is it likely my preteen or teen will be exposed to HPV?

- HPV is very common and easily spread.
- HPV is spread by intimate skin-to-skin contact, not just sex.
- Even if someone waits until marriage to have sex, or only has one partner in the future, he/she could still be exposed.
- Approximately 79 million persons are infected with HPV, and about 14 million new HPV infections occur each year. Half of these new infections (7 million per year) occur in persons 15 to 24 years.

## Why do boys, as well as girls, need HPV vaccine if it protects against cervical cancer?

- HPV can cause several types of cancers and genital warts in both males and females.
- It can lead to cancers of the
  - » Back of the throat, base of the tongue, and tonsils (in males and females)
  - » Anus (in males and females)
  - » Cervix, vulva, and vagina (in females)
  - » Penis (in males)

*All of these cancers can be deadly.*

- Getting the vaccine can help prevent HPV infections that cause those cancers.
- HPV vaccine also prevents genital warts.
- Women can get cervical cancer screening, but there is no similar test for head and neck cancers in men.
- A male who receives HPV vaccine is also protecting his future partner. When the male is vaccinated, he does not spread the virus that causes cervical cancer and other cancers.

## Are adolescent vaccines safe? Do they have side effects? Can they be given at sick visits?

All vaccines routinely recommended for preteens and teens have been licensed by the Food and Drug Administration and found to be safe. The safety of each vaccine continues to be checked after it is licensed. Your pediatrician can provide you with a Vaccine Information Statement that explains the mild side effects that can occur after receiving shots: pain and fainting. Detailed safety information ([www.cdc.gov/vaccinesafety/pdf/data-summary-hpv-gardasil-vaccine-is-safe.pdf](http://www.cdc.gov/vaccinesafety/pdf/data-summary-hpv-gardasil-vaccine-is-safe.pdf)) is available along with additional resources ([www.cdc.gov/vaccinesafety/vaccines/index.html](http://www.cdc.gov/vaccinesafety/vaccines/index.html)).

### *Pain*

- Pediatricians do not like to cause discomfort to children or teens. Even though shots may hurt, getting a vaccine is not as bad as having a serious disease such as meningitis or cancer. Talk with your pediatrician about ways to reduce pain during vaccination. Stroking the skin or applying pressure to the skin before the shot reduces the pain. In some offices, medication to numb the skin may be available.

### *Fainting*

- Your pediatrician may ask your child or teen to sit for 15 minutes after getting a shot in case he/she faints (syncope). Staying seated for 15 minutes reduces the main risk from fainting, that is, getting hurt from falling.

### *Vaccination at sick visits*

- Families are busy and it is hard to find time to visit the pediatrician's office to get a shot. It is smart to get any vaccines that are due when your child or teen is in the pediatrician's office for any reason. This will reduce the chance that your child or teen will miss school, work, or other activities to receive vaccines.

## Why is more than one dose of the HPV vaccine needed?

- It is recommended that your child receive 2 doses of HPV vaccine at ages 9 to 12 for full protection. If your child or teen starts the series when 15 or older or has certain immune problems, he/she may need 3 doses of the HPV vaccine for the body to build up enough immunity to protect against infection. Many of the vaccines that babies get also require 3 doses.

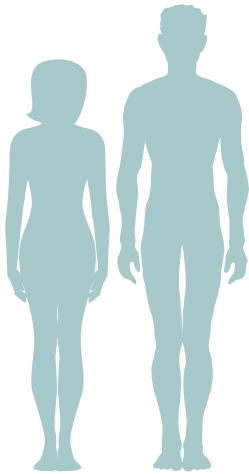
## How effective is vaccination of adults compared to children?

- Vaccination of children is the most effective. Vaccination at ages 9 -12 will prevent 99% of HPV cancers. Vaccinating adults will prevent <1% of cancers.



# MORE INFORMATION ON HPV VACCINE

## FACTS



**HUMAN PAPILLOMAVIRUS (HPV) IS SPREAD BY INTIMATE SKIN-TO-SKIN CONTACT,**

**NOT JUST SEX.**



Talking With  
Teens

UP TO **80%**



of teens and preteens are

**INFECTED WITH THE HPV VIRUS WITHIN**

**3 YEARS**

of the first time they have sex.

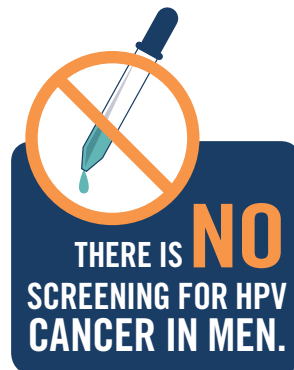
## BOYS TOO? YES!

**HPV ALSO CAUSES SOME CANCERS**

**OF THE BACK OF THE THROAT, BASE OF THE TONGUE, AND TONSILS; ANUS; AND PENIS.**

### CANCERS

- BACK OF THE THROAT (in males and females)
- BASE OF THE TONGUE (in males and females)
- TONSILS (in males and females)
- ANUS (in males and females)
- PENIS (in males)



**PLUS CERVICAL CANCER IN WOMEN**

### MORE FACTS

- Condoms do not provide complete protection against the HPV virus.
- HPV vaccine safety has been monitored since the first HPV vaccine was licensed in 2006. No serious safety concerns have been identified.
- HPV vaccine has been around for more than 10 years and is used in 180 countries and has been shown to be safe. No serious safety concerns have been identified.
- The HPV vaccine protects males from spreading the virus to his future partners.



Vaccine Information Statement





# MENINGOCOCCAL VACCINES

## About meningococcal disease

- Meningococcal disease is a serious illness caused by bacteria.
- The bacteria can lead to
  - » Meningitis: an infection of the brain and spinal cord
  - » Meningococcal sepsis: a very serious blood infection
- Anyone can get meningococcal disease, but among young patients it is most common in babies and people aged 16 to 21 years.
- Meningococcal disease can lead to
  - » Death
  - » Blindness
  - » Deafness
  - » Loss of limbs
  - » Other long-term problems
- Even if treated soon after infection, 1 person in 5 of those who get meningococcal disease will die.
- About 1,000 people get meningococcal disease each year in the United States.
- There are other causes of meningitis that are not prevented by meningococcal vaccines. They include other meningococcal serogroups that are not in the vaccine, other bacteria (such as *Haemophilus influenzae* type b and streptococci), fungi, and viruses.

## Meningococcal conjugate vaccine

- This routinely recommended vaccine (MenACWY) protects preteens and teens from 4 meningococcal bacteria (serogroups A, C, W, and Y).
- Serogroups C, W, or Y cause 73% of all cases of meningococcal disease among persons 11 years or older.
- Preteens at ages 11 to 12 years should receive the vaccine.
- Booster dose
  - » One dose of meningococcal conjugate vaccine protects a person, but immunity wanes over time.
  - » Your teen will need a booster dose when she/he is 16.
  - » This will keep your teen fully protected during the rest of the years when she/he is at highest risk of getting meningococcal disease.
- The routine recommended meningococcal disease protects adolescents from the types of meningococcus that cause about 3 out of 4 cases of meningococcal disease. However, even people who are vaccinated need to take the signs of meningitis seriously because meningococcal vaccines do not prevent every form of meningitis.

## Common side effects of the meningococcal vaccine

### After vaccination

- Some preteens or teens may faint after any medical procedure, including vaccination.

- To prevent an injury from falling caused by fainting, the vaccinated preteen or teen should remain seated or lying in the office for 15 minutes after the shot.
- If preteens or teens are sore from their shot, they may take acetaminophen (eg, Tylenol) or ibuprofen (eg, Motrin, Advil).

### Vaccine side effects

- Redness or pain may develop where the shot is given. This lasts 1 to 2 days.
- A small percentage of people who receive the shot will develop a mild fever.
- Serious reactions are very rare.

## Meningococcal B vaccine

- Protection against meningococcal type B disease requires a specific vaccine called meningococcal B vaccine (MenB).
- MenB protects people from one type of meningococcus (serogroup B) that causes about one-third of meningococcal disease in the United States. In recent years, there have been many college outbreaks of meningococcal B disease, but overall the disease is rare.
- MenB may be given based on shared clinical decision making to adolescents not at increased risk ages 16 through 23 years to provide short-term protection against most strains of serogroup B meningococcal disease; 16 through 18 years is the preferred age for vaccination.
- *High-risk people too:* MenB is recommended routinely for people 10 years or older who are at increased risk for serogroup B meningococcal infections, including
  - » People at risk because of a serogroup B meningococcal disease outbreak
  - » Anyone whose spleen is damaged or has been removed
  - » Anyone with persistent complement component deficiency
  - » Anyone taking a drug called eculizumab (also called Soliris)
  - » Microbiologists who routinely work with isolates of *Neisseria meningitidis*
- The 2 MenB vaccine brands are different. The same vaccine brand must be used for all doses in a series.
- *MenB schedule:* For protection, more than 1 dose of a MenB vaccine is needed. The number of doses and the interval between them depend on the brand.
  - » *How long does protection last?* For most people protection lasts 24 to 48 months after vaccination.

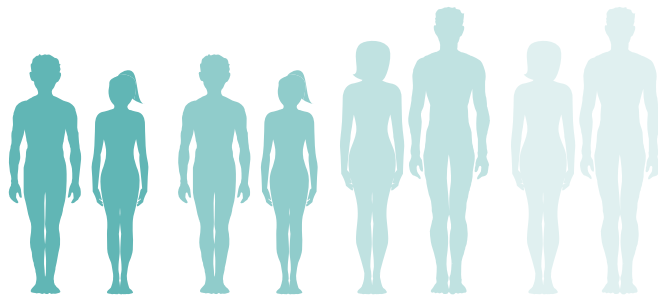




# MENINGOCOCCAL CONJUGATE VACCINE

## ONE DOSE

OF MENINGOCOCCAL CONJUGATE  
VACCINE PROTECTS A PERSON,



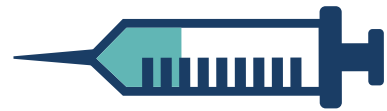
AGES 11–12

AGE 16

BUT  
IMMUNITY  
**WANES**  
OVER TIME.

## BOOSTER SHOT

AT  
AGE  
16



**will protect** your teen fully during  
the rest of the years when he/she  
is at the highest risk.

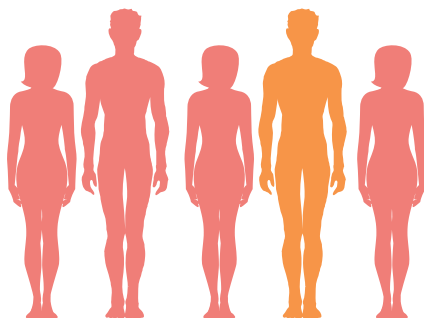
WITHOUT  
TODAY'S  
VACCINE,

1

IN

5

WHO GET  
MENINGOCOCCAL  
DISEASE  
**WILL DIE.**



OTHER  
POSSIBLE  
OUTCOMES OF  
MENINGOCOCCAL  
DISEASE



- Blindness
- Deafness
- Loss of limbs
- Other long-term problems
- Death



# TETANUS, DIPHTHERIA, PERTUSSIS VACCINE

## About tetanus, diphtheria, and pertussis

### *Tetanus (also known as lockjaw)*

- Tetanus causes severe muscle stiffness that can make it hard or impossible to
  - » Open the mouth
  - » Swallow
  - » Breathe
- One in 5 people who get tetanus will die.

### *Diphtheria*

- Is a serious throat infection
- It can lead to
  - » Breathing problems
  - » Paralysis
  - » Heart failure
  - » Death

### *Pertussis (also called whooping cough)*

- Is a lung disease that causes
  - » Severe coughing
  - » Difficulty breathing
  - » Death

### *Tetanus, diphtheria, pertussis vaccine*

- Babies and younger children are vaccinated against these diseases with the DTaP vaccine, but immunity decreases over time, so we all need a booster dose. Tetanus, diphtheria, pertussis (Tdap) vaccine is the booster dose.
- Preteens need to receive this vaccine at ages 11 to 12 years to boost their immunity so they will be better protected against these diseases.
- The Tdap vaccine takes the place of the tetanus-diphtheria booster dose that used to be given to teens.
- Recently, there have been several outbreaks of pertussis (whooping cough) throughout the United States.
  - » This is in part because the effect of the childhood vaccine wears off over time.

- If your teen did not get the vaccine at ages 11 to 12, he/she should get it now.
- Vaccinating preteens and teens not only protects them from whooping cough but also protects any babies or children around them who might be too young to be protected by the DTaP vaccine (eg, baby sister or brother).

## Common side effects of the Tdap vaccine

### *After vaccination*

- Older kids often have a headache or feel tired on a normal day, so it is hard to say which symptoms that come after the vaccination are caused by it.
- If preteens or teens are sore from their shot, they may take acetaminophen (eg, Tylenol) or ibuprofen (eg, Motrin, Advil).

### *Vaccine side effects*

- Redness or pain where the shot was given
- Headache
- Tiredness
- Nausea, vomiting, diarrhea or stomach ache
- Mild fever of at least 100.4°F or 38°C



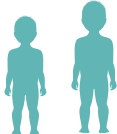
# TETANUS, DIPHTHERIA, PERTUSSIS VACCINE

## TETANUS, DIPHTHERIA, AND PERTUSSIS



Babies and younger children are vaccinated against these diseases with the DTaP vaccine, but immunity decreases over time. A booster shot called Tdap (tetanus, diphtheria, pertussis) vaccine helps protect older children and teens from the same diseases.

### DTaP VACCINE



### Tdap VACCINE

AGES 11-12

### TETANUS

#### Lockjaw

- Severe muscle stiffness
- Difficulty in opening mouth, swallowing, and breathing
- Death

### DIPHTHERIA

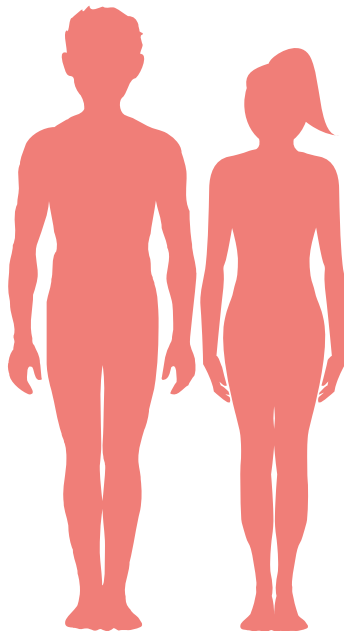
#### Serious Throat Infection

- Breathing problems
- Paralysis
- Heart failure
- Death

### PERTUSSIS

#### Whooping Cough

- Severe coughing
- Difficulty breathing
- Death



### PROTECT THE VULNERABLE.

Vaccinating teens protects not only them but any babies or children around them who might be too young to receive the DTaP vaccine.



# COMMON QUESTIONS ABOUT ADOLESCENT VACCINES

## Pain

- Even though shots may hurt, getting a vaccine is much better than having a serious disease such as cancer or meningitis.
- To reduce pain, stroke or apply pressure to the skin before the shot.

## Fainting

- Preteens or teens should sit or lie in the office for 15 minutes after getting a shot to prevent injury from falling caused by fainting.
- Staying seated or lying down for 15 minutes reduces the chance that your teen will injure herself/himself in a fall caused by fainting.

## Vaccination at sick visits

- Vaccination during a mild illness is safe and effective. It does not put any extra burden on the immune system.
- Even though your preteen or teen isn't feeling well, it is smart to get any vaccines that are due when in the office.
  - » Families are busy and it is hard to find time to come here another time to get a vaccine.
  - » Receiving the vaccine today reduces the
    - Amount of time your preteen or teen is still at risk for the serious disease
    - Chance of missing the vaccine all together
    - Time missing school, work, or other activities (if you make another visit)

## Safety

- All vaccines routinely recommended for preteens and teens have been licensed by the Food and Drug Administration and found to be safe and effective.
- The safety of each vaccine continues to be checked after it is licensed.
- The Vaccine Information Statements explain the side effects that can occur after receiving a vaccination.

## What is the cost of these vaccines?

- For those who do not have insurance, vaccines can be provided for free through the Vaccines for Children Program.
- Talk with your pediatrician's office manager about your insurance coverage for vaccines.

## How long do these immunizations last?

- The flu vaccine changes most years and is probably only effective for about a year. That's why this vaccine is recommended every year.
- Data suggest human papillomavirus (HPV) vaccination protects for at least 10 years without any evidence of waning immunity.
- The protection that the meningococcal conjugate vaccine offers wanes after about 5 years. This is why teens should get a booster dose at age 16.
- Experts continue to study how long immunity from tetanus, diphtheria, pertussis (Tdap) vaccine lasts. The Centers for Disease Control and Prevention currently recommends that preteens get 1 dose of Tdap followed by Td every 10 years.



# COMMON QUESTIONS ABOUT ADOLESCENT VACCINES

## How long do these immunizations last?

- The **flu vaccine** changes most years and protection decreases over time. That's why this vaccine is recommended every year.
- Data suggest **human papillomavirus (HPV) vaccination** protects for at least 10 years without any evidence of waning immunity.
- The protection that the **meningococcal conjugate vaccine** offers wanes after about 5 years. This is why teens should get a booster dose at age 16.
- Experts continue to study how long immunity from **tetanus, diphtheria, pertussis (Tdap) vaccine** lasts. The Centers for Disease Control and Prevention currently recommends that preteens get 1 dose of Tdap followed by Td every 10 years.



## VACCINATION COSTS

You're covered.



For those who do not have insurance, vaccines may be provided for free through the Vaccines for Children Program. Talk with your pediatrician's office manager about your insurance coverage for vaccines.

## What about...

**PAIN?** To reduce pain, stroke or apply pressure to the skin before the shot.

**FAINTING?** Preteens or teens should sit or lie in the office for 15 minutes after getting a shot to prevent injury from falling caused by fainting.

## VACCINATION AT SICK VISITS?

Vaccination during a mild illness is safe and effective. It does not put any extra burden on the immune system.

