THE IMPORTANCE OF ADULT IMMUNIZATION

EDUCATIONAL MANUAL FOR HEALTH PROMOTERS AND COMMUNITY HEALTH WORKERS

If you have a disability and need this document in another format, please call 1-800-525-0127 (711 TTY/TDD relay).
THE IMPORTANCE OF ADULT IMMUNIZATIONS

General information about this educational manual:

This educational manual is designed to be printed and used as a flipbook. The pages with less text are for the client and the pages with more text are for the educator. The manual provides information for health promoters and community health workers to educate in groups or individually about the importance of adult immunizations and the diseases they prevent.

We hope this information is of your liking and helps you promote, educate, and answer the questions that your community has about the importance of adult immunizations and the diseases they prevent. If you want to know more about this topic or need additional educational materials on immunizations, do not forget to check the internet resources available at the end of this manual.

To obtain an electronic copy of this educational manual, please email Leigh.Wallis@doh.wa.gov.
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**HOW TO PRINT THIS FLIPBOOK:**

Under the print settings the following should be selected: Print all pages, one page per sheet, letter size 8.5 x 11”, print on both sides (flip sheets on long edge), composite RGB. Now go to *Printer Properties* and select the following: 2-Sided (Tablet), N-Up Printing, and Landscape.
Health is the most important thing for the whole family!

If we are in good health, the general wellbeing of our community improves.
Health is the most important thing for the whole family!

If we are in good health, the general wellbeing of our community improves.

- When we have good health we can feel better everywhere and that is why being up to date with all vaccines is very important.
- The vaccination rate among adults is the lowest in the entire country. The number of adults who die each year in the United States due to vaccine-preventable diseases could fill more than 900 school buses.
How can you help?

Keep up to date with all your immunizations and don’t forget to get a flu shot every year.
How can you help?

Keep up to date with all your immunizations and don’t forget to get a flu shot every year.

- You can take a simple step to help protect your health, the health of your family, and the health of your community. Ask your doctor about the vaccines you and your family need to enjoy a healthier life.

- Being up to date on immunizations as an adult is important. The protection from some childhood vaccines can wear off over time and you need booster shots. You may also be at risk for other diseases due to your age, job, lifestyle, travel habits, or health conditions.

- Vaccines don’t just protect you from illness and death, they also prevent you from missing work or school days.
What is a vaccine?

A vaccine is a medicine that makes our immune system stronger against one or more diseases.
What is a vaccine?

A vaccine is a medicine that makes our immune system stronger against one or more diseases.

- A vaccine is a medicine that helps our body create antibodies to one or more diseases. These antibodies help your body to recognize and fight the harmful viruses or bacteria that can cause diseases. Antibodies are your immune system’s best protection against disease.

- By getting vaccinated, you don’t have to get sick with the disease in order to get antibodies. Vaccines help our body get ready to attack the disease before we even come into contact with it. Vaccines prevent us from getting sick easily.

- Vaccines are effective, but sometimes we need extra doses of some vaccines to keep our body’s immune system strong.
Why are vaccines important?

Because thanks to vaccines, fewer and fewer people suffer from serious infectious diseases.
Why are vaccines important?

Because thanks to vaccines, fewer and fewer people suffer from serious infectious diseases.

- Thanks to vaccines, illness such as polio, diphtheria, and smallpox are no longer seen in the United States.

- For instance, before the introduction of vaccines, 16,316 cases of polio, 21,053 cases of diphtheria, and 29,005 cases of smallpox were seen annually in this country.

- Other diseases have decreased by 99 percent. For instance, before 1963, more than half a million cases of measles were reported annually and more than 500 people died. After the vaccine was introduced, an average of 61 cases per year are now seen.
Immunity in our community

The health of our families and community is priceless. Immunizations are key to our wellbeing.
Immunity in our community.
The health of our families and community is priceless. Immunizations are key to our wellbeing.

- Vaccines are one of the most important medical successes in the history of humanity because they help prevent many serious diseases. But in order to maintain lasting protection against these diseases and prevent their transmission to the rest of the population that has not yet been protected, we need the majority of people in our community to be vaccinated. That type of protection is known as Herd Immunity or Community Immunity.

- When you and your family get vaccinated, you are helping to create and maintain immunity in your community.
What can happen if we don’t get immunized?

We can get sick and infect other people who for some reason have not been able to get vaccinated.
What can happen if we don’t get immunized?
We can get sick and infect other people who for some reason have not been able to get vaccinated.

If we do not get immunized and have contact with germs, we can:

- Get sick and make other people sick.
- Cause disease outbreaks.
- Endanger the health of those who are not able to get vaccinated and those who have weak immune systems.

When we get immunized, we protect our health and the health of many people around us, as some diseases can cause serious complications and even death.
The advantages of vaccines

Vaccines are safe and effective against many infectious diseases.
The advantages of vaccines.
Vaccines are safe and effective against many infectious diseases.

- The United States has the safest and most effective vaccines in history. The law requires years of testing before a vaccine can be licensed.
- People who are up to date with all their vaccines have enough defenses to avoid catching the disease against which they were immunized.
- If the majority of the population is vaccinated, the spread of many diseases decreases. This saves a lot of money from medical expenses to families and communities.
Diseases and their vaccines

There are 15 diseases adults can be protected against with 13 different vaccines.
Diseases and their vaccines

There are 15 diseases adults can be protected against with 13 different vaccines.
Disease: Flu

Flu (influenza) is a contagious respiratory illness caused by influenza viruses.

Special Note: All adults need the flu vaccine every year, especially pregnant ones.

### Take 3 Actions to Fight Flu

1. Get a flu vaccine every year!
2. Practice good hygiene to stop the spread of germs.
3. Take flu antiviral drugs if your doctor prescribes them.

### Vaccination Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 dose every year</td>
</tr>
</tbody>
</table>

- It is recommended.
- It is not recommended.
Disease: Flu

Vaccine: Influenza

Special note about the vaccine: All adults need the flu vaccine every year, especially if you are pregnant.

About flu (influenza):

- Flu is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and sometimes lungs. It is spread through the air by coughing and sneezing, talking, or by touching a surface or object that has flu virus on it and then touching their own mouth, nose, or eyes.

- It can cause mild to severe illness, and at times can lead to death. Older people, young children, and people with certain health conditions (i.e. pregnancy, asthma, diabetes, and heart disease) are at the highest risk of serious flu complications.

Symptoms: Symptoms usually occur suddenly and include fever, cough, sore throat, runny nose, body aches, headache, and fatigue. People usually recover from flu within 5 to 7 days. Complications of flu can include bacterial pneumonia, ear infections, sinus infections, and worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes.

Adults need this vaccine if: All adults need this vaccine every year, especially if you are pregnant.

Take 3 Actions to Fight Flu

1. Get a flu vaccine every year!
2. Practice good hygiene to stop the spread of germs.
3. Take flu antiviral drugs if your doctor prescribes them.

Flu is serious and may result in death. Your best protection is to get a flu shot every year.

Vaccination Schedule

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<tr>
<td>Flu</td>
<td>1 dose every year</td>
<td></td>
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</tbody>
</table>

It is recommended. It is not recommended.
Whooping cough (pertussis) bacteria is spread by coughing and sneezing.

**Special Note:** All adults should get a Tdap vaccine if they haven’t had one before. Pregnant women should get a Tdap vaccine as early as possible in their third trimester, even if they have had it in a previous pregnancy.

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**Vaccination Schedule**

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<tbody>
<tr>
<td>Tdap</td>
<td></td>
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</table>

- It is recommended.  
- It is not recommended.
**Disease:** Whooping Cough  

**Vaccine:** Tdap

**Special note about the vaccine:** All adults should get a Tdap vaccine if they haven’t had one before, then a Td booster every 10 years for tetanus and diphtheria. Pregnant women should also get a Tdap vaccine as early as possible in their third trimester, even if they have had it in a previous pregnancy.

**About whooping cough (pertussis):**
- Pertussis bacteria is spread very easily through coughing and sneezing.
- Pertussis is most dangerous for babies. Many babies who get pertussis are infected by older siblings, parents, or caregivers who might not even know they have the disease.

**Symptoms:** Early symptoms last for 1 to 2 weeks and may appear to be a common cold. After 1 to 2 weeks, more severe symptoms appear, which include coughing fits followed by vomiting and/or exhaustion. The coughing fits can go on for up to 10 weeks or more. It is important to know that not everyone with whooping cough makes the “whoop” sound when trying to breathe in after a coughing spell. Pertussis is generally milder in teens and adults, especially those who have gotten the pertussis vaccine.

**Adults need this vaccine if:** You are 19 years or older or if you are pregnant.

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<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tdap</td>
<td></td>
<td></td>
<td></td>
<td>1 dose Tdap, then Td booster every 10 years</td>
<td></td>
</tr>
</tbody>
</table>

- It is recommended.  - It is not recommended.
**Disease:** Tetanus

**Vaccine:** Tdap/Td

Tetanus bacteria is found in soil, dust, and manure. Unlike other diseases, tetanus does not spread from person to person. It enters the body via cuts or puncture wounds. It can cause serious health problems.

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
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<th>65 years and older</th>
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</thead>
<tbody>
<tr>
<td>Tdap/Td</td>
<td>1 dose every 10 years (or more, if pregnant)</td>
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</tbody>
</table>

[Image of tetanus bacteria entering the body via cuts or puncture wounds]

[TETANUS IS A SERIOUS DISEASE THAT CAN CAUSE BREATHING PROBLEMS, MUSCLE SPASMS, AND PARALYSIS.]

[Image of tetanus symptoms in a human]
Disease: Tetanus

Special note about the vaccine: All adults should get a Tdap vaccine if they haven’t had one before, then a Td booster every 10 years for tetanus and diphtheria. Pregnant women should also get a Tdap vaccine as early as possible in their third trimester, even if they have had it in a previous pregnancy.

About tetanus:
- Tetanus bacteria is found in soil, dust, and manure. They enter the body through broken skin, usually cuts or puncture wounds caused by contaminated objects.
- Tetanus infection can lead to serious health problems, including being unable to open the mouth and having trouble swallowing and breathing.

Symptoms: Symptoms of tetanus include jaw cramping, muscle spasms, painful muscle stiffness, jerking or staring, trouble swallowing, headache, fever, sweating, and fast heart rate. Serious health problems can happen because of tetanus and it can be deadly (1 to 2 of every 10 cases results in death).

Adults need Td vaccine if: It has been 10 years since the last time you received a Td vaccine. If you are pregnant, you need a Tdap vaccine, even if you had it in a previous pregnancy.

Vaccination Schedule

<table>
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<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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It is recommended.  It is not recommended.
**Disease:** Diphtheria

**Vaccine:** Tdap/Td

Diphtheria bacteria is usually spread through coughing and sneezing. This bacteria produces a poison that destroys healthy tissues.

Vaccination Schedule

<table>
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<tr>
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<th>19-21 years</th>
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<tbody>
<tr>
<td>Tdap/Td</td>
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<td></td>
<td></td>
<td></td>
<td>1 dose every 10 years (or more, if pregnant)</td>
</tr>
</tbody>
</table>

- It is recommended.  - It is not recommended.
Disease: **Diphtheria**

**Vaccine:** Tdap/Td

**Special note about the vaccine:** All adults should get a Tdap vaccine if they haven’t had one before, then a Td booster every 10 years for tetanus and diphtheria. Pregnant women should also get a Tdap vaccine as early as possible in their third trimester, even if they have had it in a previous pregnancy.

**About diphtheria:**
- Diphtheria bacteria is spread through coughing and sneezing. A person can get diphtheria by coming in contact with an object that has the bacteria on it.
- Diphtheria bacteria produce a poison that destroys healthy tissues in the respiratory system (includes parts of the body that help you breathe). The poison may also get into the bloodstream and cause damage to the heart, kidneys, and nerves.

**Symptoms:** Symptoms of diphtheria include weakness, sore throat, fever, and swollen glands in the neck. Within 2 to 3 days, the dead tissue forms a thick, gray coating that can build up in the throat or nose, making it very hard to breathe and swallow. Even with treatment, 1 in 10 people with diphtheria will die.

**Adults need Td vaccine if:** It has been 10 years since the last time you received a Td vaccine. If you are pregnant, you need a Tdap vaccine, even if you had it in a previous pregnancy.

**Vaccination Schedule**

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- It is recommended.  - It is not recommended.
**Disease:** Shingles

Shingles (herpes zoster) is caused by the same virus that causes chickenpox. Anyone who has ever had chickenpox can develop shingles.

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**Vaccine:** Zoster

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
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<th>65 years and older</th>
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<tbody>
<tr>
<td>Zoster</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50 and older: 2 doses</td>
</tr>
</tbody>
</table>

- It is recommended.  - It is not recommended.
Disease: Shingles

Vaccine: Zoster

About shingles (herpes zoster):
- Shingles is caused by the same virus that causes chickenpox. Shingles cannot be spread from one person to another, but the chickenpox virus that causes shingles can be spread from a person with shingles to cause chickenpox in someone who has never had chickenpox or received chickenpox vaccine.
- Anyone who has ever had chickenpox can develop shingles. Once a person has had chickenpox, the virus is inactivated and stays inside the body, but the virus can reactivate years later. This reactivation causes shingles.

Symptoms: Painful rash that develops on one side of the face or body. Pain, itching, or tingling in the area where the rash will develop may occur 1 to 5 days before the rash appears. Other symptoms include fever, headache, chills, and upset stomach. The rash usually clears up within 2 to 4 weeks. Some people may develop severe pain in the areas where they had the shingles rash called post-herpetic neuralgia. This pain may last anywhere from a few weeks or months to years.

Adults need this vaccine if: You are 50 years or older. A new vaccine is available at age 50 and includes 2 shots.

Shingles is a very common, but painful disease. 1 in 3 adults will get shingles in their lifetime.

About 1 in 3 adults in the US WILL GET SHINGLES

ASK YOUR HEALTHCARE PROFESSIONAL ABOUT SHINGLES VACCINATION

Shingles rash on the neck.

Vaccination Schedule

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- It is recommended.  - It is not recommended.
**Pneumococcal** disease is an infection caused by bacteria. There are two vaccines: PCV13 protects against 13 types of bacteria and PPSV23 protects against 23 types.

**Vaccination Schedule**

<table>
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<th>65 years and older</th>
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<tbody>
<tr>
<td>PCV13</td>
<td></td>
<td></td>
<td>1 dose</td>
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<tr>
<td>PPSV23</td>
<td></td>
<td>1 or 2 doses</td>
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<td></td>
<td>1 dose</td>
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- It is recommended.  
- It is not recommended.  
- It may be recommended.
Disease: **Pneumococcal**

**Vaccine:** Pneumococcal

**Special note about the vaccine:** Pneumococcal vaccines may be recommended during pregnancy for adults with certain medical conditions. PCV13 protects against 13 types of bacteria and PPSV23 protects against 23 types.

**About pneumococcal disease:**
- Pneumococcal disease is an infection caused by bacteria. It is spread through direct contact with respiratory secretions like mucus and saliva.
- It causes many kinds of infections, from ear and sinus infections to pneumonia, meningitis, and bloodstream infections. Children younger than 2 years old and adults 65 years or older are most at risk.

**Symptoms:** Symptoms depend on the body part that is infected. Pneumonia (lung infection) is the most common serious form of the disease. Symptoms include fever and chills, cough, difficulty breathing, and chest pain. Other forms of the disease are meningitis (swelling of the covering of the brain and spinal cord) and bacteremia (blood infection). Most infections are mild; however, some can be deadly or result in brain damage or hearing loss.

**Adults need this vaccine if:**
- **PCV13:** You have certain medical conditions or you are age 65 years or older.
- **PPSV23:** You have certain medical conditions or smoke cigarettes, or you are age 65 years or older.

**Pneumococcal Vaccines**
- Recommended For: All adults 65 years or older; Adults 19 years or older with certain health conditions; Adults who smoke cigarettes.

**What do they all have in common?**
- These people are all at increased risk for pneumococcal disease due to age, certain health conditions, and cigarette smoking.

### Vaccination Schedule

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<tr>
<td>PCV13</td>
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<td></td>
<td>1 dose</td>
<td></td>
<td>1 dose</td>
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<td>PPSV23</td>
<td></td>
<td>1 or 2 doses</td>
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<td>1 dose</td>
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</tbody>
</table>

- [ ] It is recommended.  [ ] It is not recommended.  [ ] It may be recommended.
Disease: Meningococcal  Vaccine: Meningococcal

Meningococcal disease is an infection caused by bacteria. There are two vaccines: MenACWY and MenB protect against five types of bacteria.

Meningococcal Vaccines

- MenACWY (conjugate): Protects against 4 bacteria serogroups A, C, W, and Y; recommended for age 2 months to age 55
- MenB: Protects against serogroup B; recommended for age 10 years or older

Vaccination Schedule

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<tbody>
<tr>
<td>MenACWY</td>
<td></td>
<td></td>
<td>2 or more doses</td>
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<tr>
<td>MenB</td>
<td></td>
<td></td>
<td>2 or 3 doses</td>
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</tr>
</tbody>
</table>

- It is recommended.  - It is not recommended.  - It may be recommended.
Disease: Meningococcal

Vaccine: Meningococcal

Special note about the vaccine: Meningococcal vaccines may be recommended during pregnancy for adults with certain medical conditions. MenACWY and MenB vaccines protect against five types of bacteria.

About meningococcal disease:

- Meningococcal disease is an infection caused by bacteria. It is spread through direct contact with respiratory secretions like mucus and saliva. It takes close (i.e. coughing or kissing) or lengthy contact to spread these bacteria.
- Doctors treat meningococcal disease with antibiotics, but quick medical attention is extremely important. Babies, teens, and young adults are most at risk for the disease.

Symptoms: Symptoms first appear as a flu-like illness and rapidly worsen. The two common types of meningococcal infections are meningitis (swelling of the covering of the brain and spinal cord) and septicemia (a bloodstream infection). Both can be serious and deadly in a matter of hours. Common symptoms of meningitis are fever, headache, and stiff neck. Symptoms of septicemia include fever, vomiting, cold chills, severe aches and pains, and a dark purple rash.

Adults need this vaccine if: You are at increased risk for meningococcal disease, or are in an outbreak area. Talk to your healthcare provider to find out if you are in a high-risk group.

The conjugate vaccine MenACWY protects against 4 bacteria serogroups A, C, W, and Y. The MenB vaccine protects against serogroup B.

Common symptoms of meningococcal disease.

### Vaccination Schedule

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<tbody>
<tr>
<td>MenACWY</td>
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<td>2 or more doses</td>
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<tr>
<td>MenB</td>
<td></td>
<td></td>
<td>2 or 3 doses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- It is recommended.
- It is not recommended.
- It may be recommended.
**Measles** is a very contagious! Measles virus is spread from an infected person through breathing, coughing, and sneezing.

**Special Note:** MMR vaccine is not recommended during pregnancy.

---

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMR</td>
<td></td>
<td></td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-  It is recommended.
-  It is not recommended.
Disease: **Measles**

**Vaccine:** MMR

**Special note about the vaccine:** MMR vaccine is not recommended during pregnancy.

**About measles:**
- Measles spreads very easily to others when an infected person breathes, coughs, or sneezes.
- Measles is a very serious disease. Complications from measles are very common among children younger than five and adults older than 20.
- Almost everyone who has not had the vaccine will get measles if they are exposed to the measles virus.

**Symptoms:** Measles causes fever, runny nose, cough, and a rash all over the body. Symptoms usually last 7 to 10 days, but people can spread measles before they show symptoms.

**Adults need this vaccine if:**
You were born in 1957 or later and you haven’t had measles, or you didn’t get the MMR vaccine.

**Measles:**
- Measles is very contagious. If one person has it, 9 out of 10 people around him or her will also become infected if they are not protected.

- This is a photo that shows the characteristic measles rash.

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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</tr>
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<tbody>
<tr>
<td>MMR</td>
<td></td>
<td></td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- It is recommended.
- It is not recommended.
Mumps virus is mostly spread by coughing, sneezing or other contact with saliva from someone who is infected.

Special Note: MMR vaccine is not recommended during pregnancy.

Common Symptoms of Mumps:
- Fever
- Swollen glands in front of the ears or jaw
- Headache
- Muscle aches
- Tiredness
- Loss of appetite (not wanting to eat).

Vaccination Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
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<tbody>
<tr>
<td>MMR</td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is recommended. □ It is not recommended.
Disease: **Mumps**  
**Vaccine:** MMR

**Special note about the vaccine:** MMR vaccine is not recommended during pregnancy.

**About mumps:**
- Mumps virus is mostly spread by coughing, sneezing or other contact with saliva from someone who is infected. It can also be spread by sharing things like eating utensils and lip balm.
- Mumps can affect all ages. However, most outbreaks occur in settings where people have long-term close contact, like schools, colleges, sports teams, and camps.

**Symptoms:** Mumps causes fever, headache, muscle aches, tiredness, and loss of appetite. It may also cause swelling of the cheeks, neck or jaw, and other glands. In adolescents and adults, the ovaries or testicles also may swell. Some people get no symptoms at all. Adults are more likely than children to become very sick with mumps. Potential complications of mumps include hearing loss, meningitis (swelling of the covering of the brain and spinal cord), and brain damage. Symptoms usually last 7 to 10 days, but people can spread mumps before they show symptoms.

**Adults need this vaccine if:** You were born in 1957 or later and you haven’t had mumps, or you didn’t get the MMR vaccine.

**Common Symptoms of Mumps:** fever, swollen glands in front of the ears or jaw, headache, muscle aches, tiredness, loss of appetite (not wanting to eat).

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMR</td>
<td>It is recommended.</td>
<td>1 or 2 doses</td>
<td>It is not recommended.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Disease: **Rubella**

**Rubella** virus spreads when an infected person coughs or sneezes.

**Special Note:** MMR vaccine is not recommended during pregnancy.

---

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **MMR**: 1 or 2 doses

- It is recommended.  It is not recommended.
Disease: **Rubella**

**Vaccine: MMR**

**Special note about the vaccine:** MMR vaccine is not recommended during pregnancy.

**About rubella:**
- Rubella virus spreads when an infected person coughs or sneezes. A pregnant woman infected with rubella, can pass it to her baby and cause serious harm.
- Rubella has been eliminated in the U.S., but because it remains a problem in other parts of the world, it can still be brought here by people who get infected in other countries.

**Symptoms:** Most adults who get rubella usually have a mild illness, low-grade fever, sore throat, and a rash that starts on the face and spreads to the rest of the body. Some adults may also have a headache, pink eye (conjunctivitis), and general discomfort before the rash. Symptoms may last 5 to 8 days, but people can spread rubella before they show symptoms. Up to half of people infected with rubella do not have any symptoms.

**Adults need this vaccine if:** You were born in 1957 or later and you haven’t had measles, or you didn’t get the MMR vaccine.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
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<tr>
<td>MMR</td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- It is recommended.  - It is not recommended.

*Children born with congenital rubella syndrome may suffer from hearing, eye, and heart defects.*

Rubella, if contracted during pregnancy, is a dangerous disease that can cause miscarriage and birth defects.

*Rubella is a dangerous disease that can cause miscarriages and birth defects.*

*If you are planning to get pregnant, make sure you are up to date on your MMR vaccines.*

*“Rubella is a danger to the unborn child.”*
Disease: Human Papillomavirus (HPV)  Vaccine: HPV

HPV causes cancer and warts in various parts of the body.

Special Note: HPV vaccine is not recommended during pregnancy.

Most kids age 9 to 14 only need 2 doses of the HPV vaccine.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPV</td>
<td>3 doses</td>
<td></td>
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</tbody>
</table>

It is recommended.  It is not recommended.
Special note about the vaccine: HPV vaccine is not recommended during pregnancy.

About HPV (human papillomavirus):

- HPV is a group of more than 150 related viruses. These viruses are spread easily by skin-to-skin contact. You can get HPV by having vaginal, anal, or oral sex with someone who has the virus.

- HPV is so common that nearly all men and women get it at some point in their lives. In most cases, HPV goes away on its own and does not cause any health problems, but when it doesn’t, it can cause health problems.

Symptoms:

- HPV may cause genital warts or cancer of the cervix, vulva, vagina, penis, anus, or back of the throat. HPV can be passed even when an infected person has no signs or symptoms. You can develop symptoms years after being infected with HPV, making it hard to know when you first became infected.

Adults need this vaccine if: You did not receive HPV vaccine between ages 9 and 18 years. HPV vaccine is recommended through age 26 years for women and certain men. If you didn’t get your first dose until age 15 or later, you need 3 doses.

Most kids who start the series before age 15 get 2 doses. If started after age 15, 3 doses are needed.

Warts in the mouth caused by HPV.

### Vaccination Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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<tr>
<td>HPV</td>
<td>3 doses</td>
<td></td>
<td></td>
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</tbody>
</table>

- It is recommended.  - It is not recommended.
**Disease:** Chickenpox  

**Vaccine:** Varicella

**Chickenpox** (varicella) virus is spread through coughing and sneezing, or touching the fluid from the blisters caused by the disease.  

**Special Note:** Varicella vaccine is not recommended during pregnancy.

---

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varicella</td>
<td>2 doses</td>
<td>2 doses</td>
<td>2 doses</td>
<td>2 doses</td>
<td>2 doses</td>
</tr>
</tbody>
</table>

- It is recommended.  
- It is not recommended.
**Disease:**  Chickenpox  

**Vaccine:**  Varicella

---

**Special note about the vaccine:** Varicella vaccine is not recommended during pregnancy.

**About chickenpox (varicella):**
- Chickenpox virus is spread through coughing and sneezing, or touching the fluid from the blisters caused by the disease. Chickenpox can be serious in babies, adults, and people with weakened immune systems.

**Symptoms:** The classic symptom of chickenpox is a rash that turns into itchy, fluid-filled blisters that eventually turn into scabs. The rash usually starts on the face, chest, and back and spreads to the rest of the body. Other symptoms that appear 1 to 2 days before the rash are fever, tiredness, loss of appetite, and headache. Symptoms may last 5 to 7 days. People can spread chickenpox from 1 to 2 days before they get the rash and until all their blisters have formed scabs.

**Adults need this vaccine if:** You haven’t had chickenpox disease or you haven’t received the chickenpox vaccine. Healthy adults born before 1980 are considered immune to chickenpox. Talk more with your healthcare provider.

---

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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<td>Varicella</td>
<td><strong>2 doses</strong></td>
<td></td>
<td></td>
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</tbody>
</table>

- It is recommended.  
- It is not recommended.
Hepatitis A is a very contagious disease caused by a virus that causes liver inflammation. When the liver is inflamed or damaged, it doesn’t function well.

---

**Vaccination Schedule**

<table>
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<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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</thead>
<tbody>
<tr>
<td>Hepatitis A</td>
<td></td>
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</tbody>
</table>

- Yellowing of the eyes and skin (jaundice) because of hepatitis A.

- It is recommended.
- It is not recommended.
- It may be recommended.
Disease: **Hepatitis A**

Special note about the vaccine: Hepatitis A vaccine may be recommended during pregnancy.

**About hepatitis A:**
- Hepatitis A is a very contagious disease caused by a virus that causes liver inflammation. The virus is found in the stool of infected people, which often gets on objects and into food and water. A person becomes infected when they ingest the virus or have close contact with an infected person through sex or a caregiver role.
- Most people recover completely and do not have lasting liver damage. In rare cases, hepatitis A can cause liver failure and death in people older than 50 and in people with other liver diseases.

**Symptoms:** Symptoms of hepatitis A are fever, fatigue, nausea, loss of appetite, yellowing of the skin or eyes (jaundice), stomach pain, vomiting, or dark urine, pale stools, and diarrhea. Symptoms usually begin to appear 4 weeks after exposure to the virus. Many people, especially children, have no symptoms. A person can spread the virus to others up to 2 weeks before symptoms appear.

**Adults need this vaccine if:** You did not receive it as a child, wish to be protected against this disease, or are at increased risk for hepatitis A infection. Talk to your healthcare provider to find out if you are in a high-risk group.

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
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<tbody>
<tr>
<td>Hepatitis A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2 or 3 doses</td>
</tr>
</tbody>
</table>

- It is recommended.
- It is not recommended.
- It may be recommended.
Disease: **Hepatitis B**

Hepatitis B is a liver infection caused by the hepatitis B virus. It may cause liver cancer.

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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<th>27-59 years</th>
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<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis B</td>
<td>2 or 3 doses</td>
<td></td>
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</tbody>
</table>

- It is recommended.
- It is not recommended.
- It may be recommended.

---

Hepatitis B can cause liver damage and cancer. Mothers can unknowingly pass the disease to their babies at birth.

9 out of 10 infants who get hepatitis B from their mothers develop long-term infections.
Disease: Hepatitis B

Vaccine: Hepatitis B

Special note about the vaccine: Hepatitis B vaccine may be recommended during pregnancy.

About hepatitis B:

- Hepatitis B is a liver infection caused by the hepatitis B virus. Hepatitis B is spread by touching infected blood or other body fluids. Infection can happen through sexual contact; sharing needles, syringes, or other drug-injection equipment; or from mother to baby at birth.
- For most adults, infection is acute and short-term. Chronic infection can lead to serious health issues, like cirrhosis or liver cancer, and premature death later in life. Infection in infants is usually chronic and long-term.

Symptoms: Symptoms of hepatitis B are fever, fatigue, nausea, loss of appetite, yellowing of the skin or eyes (jaundice), stomach pain, vomiting, or dark urine, pale stools, and diarrhea. Symptoms usually begin to appear 3 months after exposure to the virus. Adults and children over the age of 5 years are more likely to have symptoms of acute infection. Most people with chronic infection have no symptoms, but they develop serious liver problems.

Adults need this vaccine if: You did not receive it as a child and are at increased risk for hepatitis B infection. Talk to your healthcare provider to find out if you are in a high-risk group.

Vaccination Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
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<tr>
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<td></td>
<td></td>
<td></td>
<td>2 or 3 doses</td>
<td></td>
</tr>
</tbody>
</table>

- It is recommended.
- It is not recommended.
- It may be recommended.
**Disease:** *Haemophilus influenzae type b (Hib)*  
**Vaccine:** Hib

**Hib** disease is caused by bacteria. It causes a variety of infections in all age groups.

The most common types of infections caused by the Hib bacteria are:

- **Pneumonia** (a lung disease)
- **Meningitis** (a disease of the covering of brain and spinal cord)
- **Epiglottitis** (swelling of wind pipe that causes difficulty in breathing)
- **Infectious Arthritis** (joint inflammation and pain)
- **Bacteremia** (blood infection)
- **Cellulitis** (a skin disease)

### Vaccination Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
<th>27-59 years</th>
<th>60-64 years</th>
<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hib</td>
<td></td>
<td></td>
<td></td>
<td>1 or 3 doses</td>
<td></td>
</tr>
</tbody>
</table>

- **It is recommended.**  
- **It is not recommended.**  
- **It may be recommended.**
Disease: *Haemophilus influenzae* type *b* (Hib)  
Vaccine: Hib

**Special note about the vaccine:** Hib vaccine may be recommended during pregnancy for adults with certain medical conditions.

**About Hib (Haemophilus influenzae type b):**
- Hib disease is caused by bacteria that can cause infections in people of all ages ranging from mild, such as an ear infection, to severe, such as a bloodstream infection. It is spread through the air by coughing and sneezing or by direct contact with someone.
- The disease occurs mostly in babies and children younger than five years old. Adults age 65 years or older and adults with certain medical conditions are at increased risk for Hib disease.

**Symptoms:** Symptoms depend on which part of the body is infected. Common severe types of Hib disease are pneumonia (lung infection), bacteremia (bloodstream infection), and meningitis (swelling of the covering of the brain and spinal cord). Other types of Hib disease that can occur include epiglottitis (swelling of the windpipe that can cause breathing trouble), cellulitis (skin infection), and infectious arthritis (inflammation of the joint).

**Adults need this vaccine if:** You have certain medical conditions or are at increased risk for Hib disease. Talk to your healthcare provider to find out if you are in a high-risk group.

<table>
<thead>
<tr>
<th>Pneumonia</th>
<th>Meningitis</th>
<th>Epiglottitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a lung disease)</td>
<td>(a disease of the covering of brain and spinal cord)</td>
<td>(swelling of wind pipe that causes difficulty in breathing)</td>
</tr>
</tbody>
</table>

**Infectious Arthritis**  
(joint inflammation and pain)

**Bacteremia**  
(blood infection)

**Cellulitis**  
(a skin disease)

These are the six most common types of infections caused by the Hib bacteria.

**Vaccination Schedule**

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19-21 years</th>
<th>22-26 years</th>
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<th>65 years and older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hib</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 or 3 doses</td>
</tr>
</tbody>
</table>

- It is recommended.  - It is not recommended.  - It may be recommended.
Getting sick can be expensive

How much does it cost to get sick from the flu?

Approximate cost if there are no complications:
$400 or more

Total cost if there are complications:
More than $1,000
Getting sick can be expensive

How much does it cost to get sick from the flu?

Approximate cost if there are no complications:

- Visit to the doctor (price may vary): $55 or more
- Medicines (price may vary): from $5 to $80
- Antivirals (price may vary): from $52 to $150
- Three days out of work (minimum salary—$11): $264

Approximate total cost: $400 or more

Total cost if there are complications: more than $1,000
Cost of a flu vaccine

No more than $40 or it could be free!

Being healthy is priceless. But in order to be healthy, we need to get immunized.
Cost of a flu vaccine

- It depends on the type of flu shot, but it can usually cost $15 to $40.
- If you go to a health fair or a free clinic, you may be able to get the vaccine for free.
- Being healthy is priceless. But in order to be healthy, we need to get immunized.
## Adult Immunization Schedule

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19 – 21 years</th>
<th>22 – 26 years</th>
<th>27 – 59 years</th>
<th>60 – 64 years</th>
<th>65 years &amp; older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td></td>
<td></td>
<td></td>
<td>1 dose every year</td>
<td></td>
</tr>
<tr>
<td>Tdap/Td</td>
<td></td>
<td></td>
<td></td>
<td>1 dose Tdap, then Td booster every 10 years</td>
<td></td>
</tr>
<tr>
<td>Zoster</td>
<td></td>
<td></td>
<td>50 and older: 2 doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCV13</td>
<td>1 dose</td>
<td></td>
<td></td>
<td></td>
<td>1 dose</td>
</tr>
<tr>
<td>PPSV23</td>
<td>1 or 2 doses</td>
<td></td>
<td></td>
<td></td>
<td>1 dose</td>
</tr>
<tr>
<td>MenACWY</td>
<td></td>
<td></td>
<td></td>
<td>2 or more doses</td>
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<tr>
<td>MenB</td>
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<td></td>
<td>2 or 3 doses</td>
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</tr>
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<td>MMR</td>
<td>1 or 2 doses</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>HPV</td>
<td></td>
<td></td>
<td>3 doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td></td>
<td></td>
<td></td>
<td>2 doses</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td></td>
<td></td>
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<tr>
<td>Hepatitis B</td>
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<td>Hib</td>
<td></td>
<td></td>
<td></td>
<td>1 or 3 doses</td>
<td></td>
</tr>
</tbody>
</table>

- **Yellow**: It is recommended.
- **Gray**: It is not recommended.
- **Light Blue**: It may be recommended.
## Adult Immunization Resources

Check out these online resources to find out more about adult immunizations.

<table>
<thead>
<tr>
<th>Organization Name</th>
<th>Web Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington State Department of Health</td>
<td><a href="http://www.doh.wa.gov/Immunization/Adult">www.doh.wa.gov/Immunization/Adult</a></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td><a href="http://www.cdc.gov/vaccines/adults">www.cdc.gov/vaccines/adults</a></td>
</tr>
<tr>
<td>Vaccines.gov</td>
<td><a href="http://www.vaccines.gov/who_and_when/adults/index.html">www.vaccines.gov/who_and_when/adults/index.html</a></td>
</tr>
<tr>
<td>Adultvaccination.org</td>
<td><a href="http://www.adultvaccination.org">www.adultvaccination.org</a></td>
</tr>
<tr>
<td>Medline Plus</td>
<td><a href="http://www.medlineplus.gov/immunization.html">www.medlineplus.gov/immunization.html</a></td>
</tr>
<tr>
<td>Immunization Action Coalition</td>
<td><a href="http://www.immunize.org">www.immunize.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.vaccineinformation.org/adults">www.vaccineinformation.org/adults</a></td>
</tr>
<tr>
<td>Immunization Action Coalition of Washington</td>
<td><a href="http://www.immunitycommunitywa.org">www.immunitycommunitywa.org</a></td>
</tr>
<tr>
<td>Vaccine Education Center</td>
<td><a href="http://www.chop.edu/centers-programs/vaccine-education-center/age-groups-and-vaccines/adults">www.chop.edu/centers-programs/vaccine-education-center/age-groups-and-vaccines/adults</a></td>
</tr>
</tbody>
</table>
Maternal Immunization

Vaccines are important before, during, and after pregnancy.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Before Pregnancy</th>
<th>During Pregnancy</th>
<th>After Pregnancy</th>
<th>Type of Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza</td>
<td>Yes</td>
<td>Yes, during flu season</td>
<td>Yes</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Tdap</td>
<td>May be recommended; it is better to vaccinate during pregnancy when possible</td>
<td>Yes, during each pregnancy</td>
<td>Yes, immediately postpartum, if Tdap never received in lifetime; it is better to vaccinate during pregnancy</td>
<td>Toxoid/Inactivated</td>
</tr>
<tr>
<td>Td</td>
<td>May be recommended</td>
<td>May be recommended, but Tdap is preferred</td>
<td>May be recommended</td>
<td>Toxoid</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>May be recommended</td>
<td>May be recommended</td>
<td>May be recommended</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Hepatitis B</td>
<td>May be recommended</td>
<td>May be recommended</td>
<td>May be recommended</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Meningococcal</td>
<td>May be recommended</td>
<td>Base decision on risk vs. benefit, inadequate date for specific recommendation</td>
<td>May be recommended</td>
<td>Inactivated</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>May be recommended</td>
<td>Base decision on risk vs. benefit, inadequate date for specific recommendation</td>
<td>May be recommended</td>
<td>Inactivated</td>
</tr>
<tr>
<td>HPV</td>
<td>May be recommended (through 26 years of age)</td>
<td>No</td>
<td>May be recommended (through 26 years of age)</td>
<td>Inactivated</td>
</tr>
<tr>
<td>MMR</td>
<td>May be recommended; once received, avoid conception for 4 weeks</td>
<td>No</td>
<td>May be recommended</td>
<td>Live</td>
</tr>
<tr>
<td>Varicella</td>
<td>May be recommended; once received, avoid conception for 4 weeks</td>
<td>No</td>
<td>May be recommended</td>
<td>Live</td>
</tr>
</tbody>
</table>

Source: CDC

For more information, visit: https://www.cdc.gov/vaccines/pregnancy
Do you wonder about adult vaccine effectiveness?

What does this chart show?
- This chart shows the vaccine effectiveness for 14 diseases that adults can be protected from with vaccines.

What is vaccine effectiveness?
- Vaccine effectiveness refers to the ability of a vaccine to prevent the disease in the real world.

Why monitor vaccine effectiveness?
- Showing the burden of disease and proving vaccine effectiveness is necessary to:
  - promote immunization
  - strengthen immunization uptake
  - encourage the development of better vaccines.

---

<table>
<thead>
<tr>
<th>Disease</th>
<th>All recommended doses, minimum effectiveness (protection can be higher than listed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chickenpox, adults</td>
<td>99%</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>95%</td>
</tr>
<tr>
<td>Flu</td>
<td>Varies every season</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>100%</td>
</tr>
<tr>
<td>Hepatitis B, adults</td>
<td>90%</td>
</tr>
<tr>
<td>HPV</td>
<td>97%</td>
</tr>
<tr>
<td>Measles</td>
<td>98%</td>
</tr>
<tr>
<td>Meningococcal types A, C*</td>
<td>85%</td>
</tr>
<tr>
<td>Mumps</td>
<td>88%</td>
</tr>
<tr>
<td>Pneumococcal, PCV13, invasive disease</td>
<td>75%</td>
</tr>
<tr>
<td>Pneumococcal, PCV13, pneumonia</td>
<td>45%</td>
</tr>
<tr>
<td>Pneumococcal, PPSV23, invasive disease</td>
<td>60%</td>
</tr>
<tr>
<td>Rubella</td>
<td>95%</td>
</tr>
<tr>
<td>Shingles, live vaccine</td>
<td>51%</td>
</tr>
<tr>
<td>Shingles, recombinant vaccine</td>
<td>97%</td>
</tr>
<tr>
<td>Shingles, PHN, live</td>
<td>67%</td>
</tr>
<tr>
<td>Shingles, PHN, recombinant</td>
<td>91%</td>
</tr>
<tr>
<td>Tetanus**</td>
<td>100%</td>
</tr>
<tr>
<td>Whooping cough</td>
<td>80%</td>
</tr>
</tbody>
</table>

Data source: Centers for Disease Control and Prevention

*Vaccines also protect against meningococcal disease types W, Y, and B, but their effectiveness has not been calculated separately.
**Tetanus protection wears off and you must get a booster every 10 years to maintain this level of protection.
Do you wonder about child vaccine effectiveness?

What does this chart show?
- This chart shows the vaccine effectiveness for 16 diseases that infants, children, and teens can be protected from with vaccines.

What is vaccine effectiveness?
- Vaccine effectiveness refers to the ability of a vaccine to prevent the disease in the real world.

Why monitor vaccine effectiveness?
- Showing the burden of disease and proving vaccine effectiveness is necessary to:
  - promote immunization
  - strengthen immunization uptake
  - encourage the development of better vaccines.
About this educational material:
This document was supported by the Cooperative Agreement of the Centers for Disease Control and Prevention (CDC). Its content is the exclusive responsibility of the author and does not necessarily represent the official opinion of the CDC.

Co-created and designed by:
The Washington Association for Community Health and the Washington State Department of Health.

In collaboration with:
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