Meningococcal and HPV Vaccines

March 2015

Dear Parent or Guardian:

As of July 2005, schools in Washington must make information available on Meningococcal and Human Papillomavirus diseases to parents or guardians of all students entering Grades 6-12.

**Meningococcal Disease and Prevention**

**Meningococcal Disease**

Meningococcal disease spreads by direct contact with infected persons by coughing, kissing, or sharing anything by mouth, such as water bottles, eating utensils, lipsticks, or toothbrushes. It can cause pneumonia, bloodstream infection, and meningitis (swelling of the covering of the brain and spinal cord). Severe disease can cause brain damage, loss of hearing or limbs, and death. Fortunately, this life-threatening infection is rare—we usually have only about 30-60 reported each year in Washington, including 1 to 8 deaths. Adolescents and young adults are more likely to get meningococcal disease, especially if they live in group settings, like college dorms.

**Meningococcal Conjugate Vaccine (MCV4)**

MCV4 protects your child against the most common types of bacteria that cause meningococcal disease. Washington provides all recommended vaccines for kids through age 18, available from healthcare providers across the state. Providers may charge an office visit fee and an administration fee to give the vaccine. People who can’t afford the administration fee can ask to have it waived. Healthy teens should get one dose of MCV4 at age 11 through 12 years. Teens who did not get their first dose at that time should get a dose as soon as possible. A second dose (or booster) is now recommended. Teens should get a booster at age 16 through 18 years or anytime before college. Talk to your healthcare provider about this vaccine.

**Learn More**

Learn more about meningococcal disease and how to prevent it:

**Washington State Department of Health**
Meningococcal information: [www.doh.wa.gov/YouandYourFamily/Immunization/Diseases/MeningitisMeningococcalDisease.aspx](http://www.doh.wa.gov/YouandYourFamily/Immunization/Diseases/MeningitisMeningococcalDisease.aspx)

**Centers for Disease Control and Prevention**
Disease information: [www.cdc.gov/meningococcal/about/index.html](http://www.cdc.gov/meningococcal/about/index.html)
Pre-teen immunizations: [www.cdc.gov/vaccines/spec-grps/preteens-adol.htm](http://www.cdc.gov/vaccines/spec-grps/preteens-adol.htm)
College students & young adults: [www.cdc.gov/vaccines/adults/rec-vac/college.html](http://www.cdc.gov/vaccines/adults/rec-vac/college.html)

**Children's Hospital of Philadelphia Vaccine Education Center**
Meningococcal questions & answers: [www.chop.edu/healthinfo/ meningococcal-infections.html](http://www.chop.edu/healthinfo/ meningococcal-infections.html)

**National Meningitis Association**
[www.nmaus.org](http://www.nmaus.org)

**Human papillomavirus (HPV) Disease and Prevention**

**Human papillomavirus (HPV) Disease**

**What is HPV?**
HPV is a common virus that spreads primarily through sexual contact. Up to 75 percent of HPV infections occur among people 15 through 24 years old. HPV causes most known cervical cancers, anal cancers, and genital warts. The types of HPV that can cause genital warts are not the same as the types that cause cancer. Some types of HPV can cause penile, anal, head, and neck cancers.

**What are the symptoms of HPV?**
Most of the time infected individuals have no symptoms and can spread the virus without knowing it. Some people know they have HPV because they have a symptom like genital warts. Women may find out they have HPV through cervical cancer
screening (Pap tests) and HPV testing. Health care providers do not usually test for HPV unless they find abnormal cervical cell changes in a Pap test.

**How can HPV infection be prevented?**
The best way to prevent HPV infection is to abstain from all sexual activity. Even people with only one lifetime partner can get HPV if their partner had previous sexual partners. Using condoms during sex offers good protection against sexual infections like HPV. The HPV vaccines offer by far the best protection if given before sexual activity starts – vaccines do not get rid of existing HPV infections. The HPV vaccine can prevent infections from some of the most common and serious types of HPV that cause warts, cervical, and anal cancers.

**HPV Vaccine**

**What HPV vaccines are available?**
Two HPV vaccines are available:
- HPV4 – licensed for males and females. It protects against four types of HPV. These include two types of HPV that cause 75 percent of cervical cancers in women and most anal cancers in men, and two types that cause 90 percent of genital warts in both women and men.
- HPV2 – licensed only for females. It protects against the two types of HPV that cause 75 percent of cervical cancers.

**Who should get the vaccine and when should they get it?**
- Females – the federal Advisory Committee on Immunization Practice (ACIP) recommends routine vaccination for all girls age 11 through 12 years old against HPV. For unvaccinated females, the recommendation goes up through age 26. Health care providers may also give the vaccine to girls as young as 9 years.
- Males – the ACIP recently approved a recommendation for routine vaccination of boys 11 through 12 years of age. For unvaccinated males, the recommendation goes up through age 21. Health care providers may vaccinate boys as young as 9 years and certain men 22 through 26 years of age.

To be up-to-date on this immunization, males and females need three doses of the vaccine. Talk to your health care provider about the vaccine schedule. HPV vaccine is not required for school in Washington.

**Are Pap tests still recommended for females who get the HPV vaccine?**
Yes. The HPV vaccine does not protect against all types of HPV that can cause cancer and warts, so females still need Pap tests.

**Where can I find the HPV vaccine?**
Washington provides all recommended vaccines for kids through age 18, available from healthcare providers across the state. Providers may charge an office visit fee and an administration fee to give the vaccine. People who can't afford the administration fee can ask to have it waived. For people age 19 and older, the vaccine is available from many clinics and pharmacies. Most health insurance plans cover the vaccine for people recommended to get it. Call your health plan to check your coverage. For adults without health insurance, the companies that make these vaccines have programs to help pay for them. Find out if your health care provider participates in these programs.

**For more information on HPV, the vaccine, and cervical Cancer:**
Centers for Disease Control and Prevention: [www.cdc.gov/std/hpv/](http://www.cdc.gov/std/hpv/)
American Sexual Health Association: [www.ashasexualhealth.org/healthcare-providers/hpv-toolkit/hpv-vaccine-information.html](http://www.ashasexualhealth.org/healthcare-providers/hpv-toolkit/hpv-vaccine-information.html)
American Cancer Society: [www.cancer.org](http://www.cancer.org)

Sincerely,

Emily Nesheim, BSN, RN
Anacortes District Nurse
Q. What is meningococcus?

A. Meningococcus is a bacterium. Meningococcal bacteria live on the lining of the nose and throat and are spread from one person to another by close personal contact. Occasionally, the virus enters the bloodstream and causes severe disease.

Five different types of meningococcal bacteria, classified on the basis of a complex sugar that coats the bacteria (called polysaccharide), cause virtually all meningococcal disease in the world. These five different types of meningococcal bacteria are called types A, B, C, Y and W-135.

Q. What are the symptoms of meningococcal infection?

A. Meningococcal bacteria infect the bloodstream, the lining of the brain and spinal cord (causing meningitis). Symptoms of bloodstream infection include fever, chills, rash, low blood pressure and dark purple spots on the arms and legs. Symptoms of meningitis include fever, headache, confusion and stiff neck.

Q. Is meningococcus dangerous?

A. Yes. Every year in the United States approximately 2,500 people are infected with meningococcus and 300 die from the disease. Also, about 400 people every year who survive infection have permanent disabilities, such as seizures, loss of limbs, kidney disease, deafness and mental retardation.

The highest incidence of meningococcal disease occurs in infants less than 1 year of age. In children between 2 and 10 years of age, the incidence of meningococcal infections is very low, but starting in adolescence the incidence of disease rises. Although adolescents are less likely to be infected than infants, they are more likely to die when infected.

Meningococcal bacteria are particularly dangerous because they rapidly make large quantities of a poison called endotoxin. Endotoxin damages small blood vessels and causes low blood pressure and shock. For this reason, meningococcal bacteria can kill people soon after they enter the bloodstream. Children can be perfectly healthy one minute and dead four to six hours later; disease can be so rapid and overwhelming that even appropriate, early medical care may be too late.

Because outbreaks occur in colleges, schools and child-care centers, and other areas where people have close contact, meningococcal infections often cause panic in the community.

Q. Is there a vaccine to prevent meningococcus?

A. Yes. In February 2005, the CDC recommended a new vaccine for use in the United States to prevent meningococcus. A previous version of the meningococcal vaccine was first available in the United States in 1982. This older vaccine was effective in older children and teenagers against four of the five different types of meningococcus (A, C, Y and W-135), but booster doses were required every three to five years.

The new vaccine, which protects against the same types of meningococcal bacteria as the previous vaccine, probably will not require booster doses. Neither the previous meningococcal vaccine nor the new vaccine protects against meningococcus type B, which accounts for two-thirds of all meningococcal disease in infants and one-third of cases in adolescents. Unfortunately, researchers have not yet figured out how to make an effective vaccine using the type B meningococcal polysaccharide coating.

For the latest information on all vaccines, visit our Web site at vaccine.chop.edu
Q. How is the meningococcal vaccine made?
A. The meningococcal vaccine is made using the complex sugar (called polysaccharide) that resides on the surface of the bacteria. Polysaccharides are stripped from the surface of four of the five different types of meningococcal bacteria that cause disease (types A, C, Y and W-135) and each is linked (conjugated) to a harmless protein. The four conjugated polysaccharides are combined into a single shot and protect against four different types of meningococcal bacteria.

Q. Is the meningococcal vaccine safe?
A. Yes. The meningococcal vaccine can cause pain or redness at the site of injection, but because it is not made from whole bacteria, it cannot possibly cause bloodstream infections or meningitis. The technology used to make the new meningococcal vaccine is the same as that used to make the pneumococcal and Haemophilus influenzae type B (Hib) vaccines, both of which have been given safely to millions of infants.

Q. Does the meningococcal vaccine work?
A. Yes. The new meningococcal vaccine protects adolescents from most of the meningococcal disease caused by types A, C, Y and W-135 (which accounts for about two-thirds of all meningococcal disease in adolescents). Because the meningococcal vaccine does not include type B, which accounts for about one-third of cases in adolescents, it does not prevent all cases of meningococcal disease.

Unfortunately, researchers have not been able to make an effective vaccine using the meningococcal type B polysaccharide coating.

The new vaccine can be given once and, unlike the previous meningococcal vaccine, is not likely to require repeated doses. Children or adults who received the previous meningococcal vaccine can receive the new vaccine.

Q. Who should get the meningococcal vaccine?
A. The meningococcal vaccine is recommended for all adolescents entering middle school (11 – 12 years old) and high school (15 years old). However, the vaccine will benefit all teenagers and young adults in the United States.

Q. Should college freshmen get the meningococcal vaccine?
A. Yes, all college freshmen, especially students living in dormitories, should receive the meningococcal vaccine. College freshmen living in dormitories are five times more likely to get meningococcal disease than people of the same age who do not attend college.

Q. If someone in my child’s school gets meningococcal infection, what should I do?
A. Children in close contact with someone with meningococcal infection should receive an antibiotic to prevent the disease. Close contact with someone with meningococcal disease is defined as 1) living in the same house, 2) attending the same child-care center or nursery school, or 3) kissing or sharing utensils or toothbrushes. Antibiotics used to prevent meningococcal infection include rifampin, ceftriaxone, azithromycin and ciprofloxacin.

Q. Does the meningococcal vaccine prevent all cases of meningitis?
A. The meningococcal vaccine will prevent many, but not all, cases of meningococcal meningitis. Other bacteria, such as pneumococcus and Haemophilus influenzae type B (Hib), also cause meningitis. Fortunately, vaccines to prevent pneumococcus and Hib are routinely given to all children before 2 years of age.

Some viruses also cause meningitis, but meningitis caused by most viruses is not as severe as meningitis caused by bacteria.