Meningococcal:
Questions and Answers

What causes meningococcal disease?

Meningococcal disease is caused by the bacterium These bacteria have at least 13 different subtypes (serogroups). Five of these serogroups, A, B, C, Y, and W, cause almost all invasive disease. The relative importance of these five serogroups depends on geographic location and other factors. In the United States almost all meningococcal disease is caused by serogroups B, C, W and Y. Serogroups C, W, and Y account for more than half of reported cases.

How does meningococcal disease spread?

The disease is spread person-to-person through the exchange of respiratory and throat secretions (e.g., by coughing, kissing, sharing eating utensils). Meningococcal bacteria can't live for more than a few minutes outside the body, so the disease is not spread as easily as the common cold or influenza.

How long does it take to show signs of

The incubation period of meningococcal disease is 3 to 4 days, with a range of 2 to 10 days. Meningococcal bacteria can make a person extremely ill by infecting the blood (septicemia) or by infecting the fluid of the spinal cord and around the brain (meningitis). Because this disease progresses quickly, it is important to be diagnosed and start treatment as soon as possible.

What are the symptoms of meningococcal disease?

The most common symptoms are high fever, chills, tiredness, and a rash. If meningitis is present, the symptoms will also include headache and neck stiffness (which may not be present in infants); seizures may also occur. In overwhelming meningococcal infections, shock, coma, and death can follow within several hours, even with appropriate medical treatment.

How serious is meningococcal disease?

Meningococcal disease caused by any serogroup is very serious and identified.

Meningococcal disease is rare in the United States, and the symptoms can be mistaken for other illnesses, which unfortunately can lead to delayed diagnosis and treatment.

Yes. The word "meningitis" refers to inflammation of the tissues covering the brain and spinal cord. This inflammation can be caused by viruses and fungi, as well as bacteria. Viral meningitis is the most common type; it has no specific treatment but is usually not as serious as meningitis caused by bacteria.

Is there a treatment for meningococcal disease?

Meningococcal disease can be treated with antibiotics. It is important to start treatment early.

How common is meningococcal disease in the United States?

Fewer than 500 cases of meningococcal disease were reported each year since 2010 in the United States. In 2018, a total of 329 cases were reported and 39 died.

The disease is most common in children younger than 5 years (particularly children younger than age 1 year), people age 16–21 years, and people age 65 years and older.

What people are at special risk for meningococcal disease?

Risk factors for meningococcal disease include having a recent viral infection, household crowding, and cigarette smoke exposure (direct or second-hand smoke). In addition, certain people are at higher risk than other people their age for meningococcal disease caused by any serogroup. These include people with a damaged or missing spleen, those with complement disorders (an immune system disorder) or who take a complement

inhibitor (e.g., eculizumab [Soliris], ravulizumab [Ultomiris], su t mlimab [Enjaymo]), as well as microbiologists who rou t nely handle meningococcal isolates.

Certain people are at increased risk for meningococcal serogroups A, C, W, and Y but not serogroup B. These include travelers to regions where meningococcal disease is more common (such as sub-Saharan Africa) and people living with HIV.

Does meningococcal disease occur in other parts of the world?

Meningococcal disease occurs throughout the world, but is more common in the area of Africa known as the “meningi t s belt” that stretches from Senegal to Ethiopia. Serogroup A was common in sub-Saharan Africa but is now rare thanks to a major vaccina t on campaign. Serogroups C and W now dominate in the "meningi t s belt."

Yes. Meningi t s can be caused by di f erent serogroups of the meningococcal bacterium, by other bacteria such as *Streptococcus* and *Haemophilus*, as well as by viruses and fungi. Being vaccinated against or having had the disease will not protect you against menin-gi t s from other bacteria or viruses.

If a child is diagnosed with meningococcal disease, with whom he has contact?

People exposed to someone with bacterial meningi t s can be protected by being started on a course of an t bio t cs immediately (ideally within 24 hours of the pa t ent being diagnosed). This is usually recommended for household contacts and children a t ending the same day care or nursery school. Older children and adults (e.g., who are in the same school or church) aren’t usually considered exposed unless they have had very close contact with the infected person (e.g., kissing or sharing a glass).

In addi t on to the an t bio t c treatment, vaccina t on may be recommended for people 2 months of age and older if the person’s infec t on is caused by meningococcus serogroup A, C, Y, or W.

United States?

Di f erent meningococcal vaccines are available that protect against di f erent serogroups. There are two products (Menveo and MenQuad f) that protect against serogroups A, C, W, and Y (abbreviated MenACWY). There are two products (Bexsero and Trumenba) that protect against serogroup B (abbreviated MenB). One vaccine (Penbraya), licensed in 2023, combines a MenACWY vaccine with the Trumenba brand of MenB in a single combina t on vaccine (abbreviated MenABCWY). Protec t on from all 5 serogroups requires the use of vaccines (either separately or in combina t on) targe t ng all 5 serogroups.

MenACWY vaccines are given in a leg muscle of a young child or the deltoid (arm) muscle of an older child or adult. MenB and MenABCWY vaccines are given intramuscularly, typically in the deltoid muscle, or alterna t vely, in the anterolateral thigh.

Certain groups should be vaccinated against all 5 serotypes (A, C, W, Y, and B). Others are recommended to receive MenACWY only.

MenACWY is recommended for these groups:

- All children and teens, ages 11 through 18 years (catch up vaccina t on of people age 19 through 21 who have not received a dose since turning 16 can be considered)
- People age 2 months and older who have a damaged or missing spleen.
- People age 2 months and older with a complement disorder (an immune system disorder) or who take a complement inhibitor (e.g., eculizumab [Soliris], ravulizumab [Ultomiris], su t mlimab [Enjaymo]).
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The CDC recommends that people not at increased risk of meningococcal B disease (healthy people age 16 through 23 years) may receive a 2-dose series of Bexsero or Trumenba, preferably at age 16 through 18 years.

People ages 10 years and older with risk factors (i.e.,