



Invasive Meningococcal Disease

What is invasive meningococcal disease (IMD)?

Neisseria meningitidis is a bacterium that can cause meningococcal meningitis (inflammation of the membranes covering the brain) and meningococemia (a serious form of blood poisoning). These two conditions are known as “invasive meningococcal disease” (IMD). Up to 10% of people carry the bacterium that can cause IMD in their nose or throat at any given time. When people carry the bacterium but do not have any symptoms, they are referred to as carriers.

What are the symptoms of IMD?

IMD is a very serious illness that can develop quickly. If you or your child develops any of the symptoms described below, seek medical attention immediately:

- Sudden onset of fever, headache, stiff neck, nausea, vomiting, sensitivity to bright lights or drowsiness, confusion or coma, as these could be early symptoms of meningococcal meningitis
- Sudden onset of fever, chills, malaise, muscle pain and a rash of tiny, reddish-purple spots or bruises that may occur anywhere on the body, as these could be early symptoms of meningococemia
- In an infant, sudden onset of fever, irritability, difficulty in waking up, difficulty feeding, vomiting, stiff neck and bulging fontanelle, as these could be early symptoms of IMD

How does IMD spread?

The bacteria that cause IMD are spread by direct contact with secretions from the nose and throat of an infected person and carrier. IMD bacteria are also spread through saliva while kissing on the mouth or sharing items such as cigarettes, toothbrushes, eating utensils and drinking bottles. The contagious period for IMD is 7 days before the onset of symptoms and up to 24 hours after the start of antibiotic treatment. The contagious period for a carrier is until the bacteria are no longer present in the secretions from the nose and throat.

What is the treatment for IMD?

All confirmed IMD cases are treated with antibiotics. Early medical treatment is critical to reduce the risk of complications and death.

Who is at greatest risk of developing IMD?

People who are at highest risk of developing IMD include:

- Very young children, adolescents and young adults
- People who have weakened immune systems, such as those with HIV infection
- People with chronic diseases, such as sickle cell disease
- People who have been in close contact with a person who has IMD, such as those living in the same house or those who had direct contact with their secretions through sharing of items

Casual contacts such as school, work or transportation contacts, and persons who did not have direct contact with the secretions from the nose and throat of a person who has IMD, are not considered to be at high risk of developing IMD.

How can IMD be prevented?

To prevent the spread of bacteria, it is recommended that you wash your hands well, especially after coughing and sneezing, before preparing food and before eating. In general, avoid sharing items such as cigarettes, toothbrushes, eating utensils and drinking bottles.

Another way to protect yourself against IMD is to be immunized with the appropriate vaccines. The meningococcal C vaccine protects people from IMD caused by serotype C. It is included in the routine immunization schedule and is normally given to infants at 12 months of age.

The meningococcal ACYW-135 vaccine protects people from IMD caused by serotypes A, C, Y and W-135. It is offered to grade 7 students in the province of Ontario. The meningococcal B vaccine protects people from IMD caused by serotype B. It is publically funded for close contacts of a case of serotype B IMD between 2 months to 17 years of age. It is not publically funded for contacts greater than 17 years of age, however is available at a cost.

What is Ottawa Public Health's role?

All suspect or confirmed cases of IMD must be reported to public health for follow up. When the Infectious Disease Program receives a case report, they identify and notify close contacts, and assess the need for preventive treatment with antibiotics. Close contacts may also be given a meningococcal vaccine.

For further information visit OttawaPublicHealth.ca

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