

## Invasive Meningococcal Disease

*ESW – Emergency Service Workers / HCW – Health Care Workers*

**Disclaimer:** This fact sheet provides basic general information only and is to be used as a quick guide, not as a complete resource on the subject. If you have any further questions, ask your health care provider or Infection Prevention and Control advisor.

Meningococcal disease is caused by bacteria known as *Neisseria meningitidis* or meningococci. Up to ten percent of people, “carriers,” have the bacteria in their throat and nose without feeling sick. In rare cases, the bacteria overcome the body’s natural defenses and cause serious invasive diseases including meningococcal meningitis (infection of the lining of the brain) and meningococemia (widespread infection of the blood and organs). Meningococcal disease occurs in all ages, but is more common in infants, adolescents and young adults.

### Transmission

Meningococci are spread by direct contact with the respiratory and oral secretions (saliva, sputum or nasal mucus) of an infected person. Carriers are also able to spread the bacteria to others. The bacteria do not survive long outside of the body.

To prevent the spread of meningococci, objects that have recently come in contact with another person’s mouth, such as water bottles, lip products, and eating utensils should not be shared. Proper hand hygiene and cough etiquette are also important.

ESWs/HCWs may be exposed to bacteria from an infected person through:

- Mouth to mouth resuscitation without a proper mouthpiece
- Unprotected contact of the worker’s eyes, nose, or mouth with respiratory droplets/spray, such as during intubation

### Prevention

Workers should always use **Routine Practices**, avoiding direct contact with the secretions and body substances of all patients.

If a HCW/ESW is to have contact with a patient with suspected or known meningococcal disease, **Droplet** and **Contact Precautions** must be used until 24 hours after initiation of appropriate antibiotic therapy.

### Symptoms

The time between contact with the bacteria and onset of symptoms is usually 3-4 days, but may be from 2-10 days. Symptoms often include sudden onset of high fever, severe headache, vomiting, stiff neck and a rash. Some persons may also be sensitive to light, sleepy, confused, or lapse into a coma. Babies may have vomiting, a high fever, feed poorly, be irritable or difficult to wake, and may develop a pin point rash.



## **Treatment**

Early medical attention and antibiotic therapy are extremely important. Antibiotics are also recommended for household and other close contacts that have had direct contact with the saliva or mucus of the infected person within 7 days prior to the illness. HCWS/ESWs workers are considered close contacts only if they have had intensive, unprotected contact with an infected patient (e.g. intubation, resuscitating or closely examining the oropharynx).

## **Is there a vaccine?**

There are vaccines to protect against most sub-groups/strains of *Neisseria meningitidis*. Currently infants receive immunization against strain C and adolescents against strain A, C, Y, and W-135.

Vaccination is also recommended for certain high risk groups including:

- unimmunized household and intimate social contacts of a person diagnosed with meningococcal disease (depending on the strain)
- those with disorders of the spleen/persons who have had their spleen removed
- those with complement, properdin or factor D deficiency
- cochlear implant recipients (pre/post implant)
- HIV positive individuals
- military personnel
- people travelling to countries where there is a high rate of this disease

Vaccination is also used during outbreaks to prevent further spread of disease.

For more information please call Public Health at 519-376-9420 or 1-800-263-3456.

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