

## Meningococcal Infection

### What is a Meningococcal Infection?

Meningococcal infection is caused by bacteria called neisseria meningitidis. It resides in most carriers without causing harm. However, the organism can cause serious and life threatening infections including:

- Meningococcal Meningitis – an infection that affects the lining of the brain
- Meningococcal Septicemia – an infection of the blood

### What are the symptoms of Meningococcal Infection?

Symptoms of Meningococcal Meningitis include:

- Sudden onset of fever, headache, severe neck stiffness, photophobia, nausea, vomiting and altered mental status

Symptoms of Meningococcal Septicemia include:

- Fever, chills, headache, nausea, vomiting and a reddish-purple tiny bruise-like skin rash.

Symptoms usually begin within 3 to 4 days after exposure to the meningococcal bacteria, but onset may vary from as early as 2 to as late as 10 days.

### How is it spread?

Meningococcal is transmitted person to person through direct contact with respiratory droplets from the nose and throat of an infected person.

### When is a person infectious?

A person is infectious 7 days before symptoms start and continues until 24 hours after the initiation of the appropriate antibiotic therapy.

### What is considered to be an exposure to Meningococcal?

An employee is considered exposed if he/she has had intensive unprotected contact with an infected patient's nasopharyngeal or pulmonary secretions and there is the possibility that the employee's nose or mouth has been directly contaminated.

Other examples includes:

- Intubating, resuscitating, or closely examining the oropharynx
- Lab workers who have had direct unprotected contact while manipulating known infectious specimens without wearing a mask
- Direct hand to mouth contact with the purulent discharge from the eye of a case of primary meningococcal conjunctivitis

In order to be considered exposed, contact must have been during the period from 7 days prior to onset of symptoms in the patient up to 24 hours after initiation of antimicrobial therapy

### How do I know if I am immune?

There are several vaccines that provide protection against some strains of meningococcal bacteria.

**In exposure situations, chemoprophylaxis is recommended regardless of immunization status.**

Vaccine	Protection for Strain(s)	Type
Bexsero®	B	Recombinant, adsorbed
Neis Vac-C®	C	Conjugate
Menactra®	A, C, Y, W-135	Conjugate
Menveo™	A, C, Y, W-135	Conjugate
Nimenrix®	A, C, Y, W-135	Conjugate

The conjugate vaccines are more commonly used because they provide longer lasting protection than a polysaccharide vaccine against disease. Recombinant adsorbed vaccines require more than one dose to build immunity and have added components to enhance the immune response.

Currently, there is not enough data to predict long term immunity and effectiveness of meningococcal conjugate vaccines. Ongoing monitoring is needed to determine if revaccination will be required.

### **What happens if an employee is exposed?**

- Employees who meet the definition of exposure and who require immediate access to chemoprophylaxis should go to their local adult Emergency Department (ER) as an outpatient as soon as possible (preferably within 24 hours of contact) for medical assessment and to receive the first dose in the ER followed by a prescription, if required
- Chemoprophylaxis is recommended regardless of immunization status for up to 10 days after the last contact with the case; chemoprophylaxis is available for pregnant exposed staff
- Contact that occurs after the case has received 24 hours of appropriate antibiotic therapy is not a concern as the case is no longer infectious
- There are no work restrictions for exposed, symptom-free employees

### **What happens if an employee has Meningococcal infection?**

Infected employees must see their doctor as soon as possible for confirmation of the disease, treatment and stay away from work until 24 hours after the start of effective antibiotic therapy.

### **Manager/Supervisor Responsibilities:**

Suspected or Confirmed Outbreak/Staff exposure: Infection Control will inform the Workplace Health Call Centre Occupational Health Nurse (WHCC OHN) of the outbreak/exposure. The WHCC OHN will contact the manager and send out an exposure notification memo through the manager.

Please advise all staff members to review the information above. Employees that meet the exposure criteria are to contact the WHCC OHN at 1-866-922-9464.

### **Employee Responsibilities:**

If infected or exposed, please contact the WHCC OHN at 1-866-922-9464 and review the information above.

### **Additional Information/References:**

- Canada Communicable Disease Report. [Prevention & Control of Occupational Infections in Health Care](#). March 2002. Retrieved on May 3, 2013
- HealthLinkBC File: [Meningococcal Quadrivalent Vaccines](#). June 2012. Retrieved on May 2, 2013.
- HealthLinkBC Health Topic: [Meningitis](#). May 24, 2016. Retrieved on July 4, 2017.
- BC Communicable Disease Control: [Meningococcal Disease](#). February 2009. Retrieved on May 2, 2013.
- BC Communicable Disease Control: [Meningococcal Vaccines](#). February 2009. Retrieved on May 2, 2013
- Fraser Health Authority Intranet (FHPulse). Workplace Health. [Meningococcus \(Neisseria Meningitidis\)](#): September 2010. Retrieved on May 3, 2013.