

# Meningococcal Disease and Vaccines

## What is meningococcal disease?

Meningococcal disease is caused by infection with *Neisseria meningitidis* bacteria which includes meningococcal meningitis and meningococemia.

- Meningitis is an inflammation of the tissues that cover the brain and spinal cord
- Meningococcal meningitis is a severe type of meningitis
- Meningococemia is an infection of the blood

These bacteria rarely invade the body to cause meningococcal disease. Meningococcal disease is a serious illness that results in death for eight to fifteen percent of cases. In addition, ten to twenty percent of people who survive the illness have long-term health consequences.

## What are the symptoms of meningococcal disease?

The symptoms of both meningitis and meningococemia are listed below. They can be very similar to flu or other viral infections.

Symptom	Meningitis	Meningococemia
Sudden onset of high fever	✓	✓
Drowsiness	✓	✓
Irritability, agitation, fussiness	✓	✓
Severe headache	✓	✓
Nausea and/or vomiting	✓	✓
Stiff neck	✓	
Pain on moving neck	✓	
Rash (that does not fade under pressure)	(occasional)	✓
Cold hands and feet		✓
Rapid breathing		✓
Pain in muscles, joints, and abdomen		✓

## How do meningococcal bacteria spread?

The meningococcal bacteria spread by direct contact with respiratory droplets, mucous and/or saliva from an infected person. Coughing, sneezing, sharing of food, utensils, cigarettes, or drinks, and kissing are ways of passing on the bacteria. A person can be infectious up to seven days before becoming ill with meningococcal disease.

People who have had **intimate or direct** exposure to a person with meningococcal disease within seven days prior to the onset of symptoms are at risk. Close contacts are defined as: those living in the same household; daycare, nursery and kindergarten school contacts; medical and emergency personnel who were directly exposed to oral/nasal secretions; and intimate contacts. Normal school classroom exposure is not considered a close contact.

For further information, please call:  
**York Region Health Connection 1-800-361-5653**  
**TTY 1-866-252-9933 or visit [www.york.ca](http://www.york.ca)**

## How is meningococcal disease prevented?

There are several vaccines in Canada used to prevent meningococcal disease. People who have been in close contact with someone with invasive meningococcal disease should immediately call their doctor, as they may need vaccines or antibiotics to protect against becoming ill. Casual contacts such as classmates and co-workers do not need preventive antibiotics.

It is important that the vaccine matches the type of bacteria in the person with meningococcal disease. Receiving a vaccine that does not match can delay the administration of the correct vaccine from two weeks to six months. Your physician may call York Region Community and Health Services to identify which vaccine is right for you.

**Menjugate®** and **NeisVac-C®** are vaccines that protect against *Neisseria meningitidis* group C bacteria. These vaccines provide high levels of long-term protective antibodies:

- Both vaccines are intended for infants and children
- Both vaccines can be given as an injection in the upper arm
- Only one dose is needed for people one year of age and older
- Both vaccines work equally well
- Side effects may include redness, tenderness or swelling at the injection site or headache. Rarely, there may be serious side effects, such as fever, hives or difficulty breathing.

Note: Infants under one year of age can receive these vaccines but they require more than one dose. Only one dose is funded under the Publicly Funded Immunization Schedule for Ontario.

**Menactra®** is a vaccine to prevent infection by groups A, C, Y and W-135 of the *Neisseria meningitidis* bacteria:

- It can be given to people between the ages of two and 55 years old
- It is given as an injection in the muscle of the upper arm
- One dose is required for protection against all four strains
- Side effects may include tenderness, swelling and redness at the injection site. In young children, irritability and drowsiness may also occur.

**Menomune®** is another vaccine to prevent infection by groups A, C, Y and W-135 of the *Neisseria meningitidis* bacteria:

- It is recommended for people over the age of two years. In very specific cases, it may be used in children as young as three months.
- It is given as an injection in the muscle of the upper arm
- Side effects may include tenderness, swelling and slight redness at the injection site
- Protection lasts only three to five years, therefore, booster doses may be required in an outbreak situation

There is no vaccine for the group B strain of *Neisseria meningitidis*.

People should not receive the meningococcal vaccines if they:

- Are allergic to any component of the vaccine
- Are ill with an infection or fever (wait until you are well before having the vaccine)
- Are pregnant (talk to your doctor)
- Have a history of Guillain-Barré syndrome (for Menactra®)

## What is the treatment for meningococcal disease?

Antibiotic medications are commonly used to treat meningococcal disease. People who have had intimate or direct exposure to a person with meningococcal disease should call their doctor immediately. Early recognition of meningococcal infection and prompt treatment greatly improves chances of survival.

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