Meningococcal Disease and Vaccines
Information Sheet

What is Meningococcal Disease?

Meningococcal disease includes Meningococcal meningitis and Meningococcemia. Meningitis is an inflammation of the meninges, the tissues that cover the brain and spinal cord. Meningococcal meningitis is a severe form of meningitis. Meningococcemia is an infection of the blood.

Most often, these illnesses are caused by the bacterium *Neisseria meningitidis*. The meningococcal bacteria are quite common and live in the back of the throat and nose of 25 percent of the population at any given time, without making them ill. Only very rarely do these bacteria invade the body to cause Meningococcal Disease. Infrequently, other bacteria (e.g. *streptococcus pneumoniae, Escherichia coli,* or *Haemophilus influenzae type b*) may cause bacterial meningitis but, again, the meningococcal bacteria cause most cases.

What are the Symptoms of Meningococcal Disease?

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

Symptom	Meningitis	Meningococcemia
High Fever	✔	✔
Drowsiness	✔	✔
Irritability, agitation, fussiness	✔	✔
Severe headache	✔	✔
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 Does Meningococcal Disease Spread?

The meningococcal bacteria are spread by direct contact with respiratory droplets, mucous and/or saliva from an infected person. Coughing, sneezing, sharing of food, food utensils, cigarettes, or drinks and kissing are ways of passing on these bacteria. A person can be infectious up to 7 days before becoming ill with Meningococcal disease.

Who is at risk?

People who have had **intimate or direct** exposure to a person with Meningococcal Disease within 7 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 contact is <u>not</u> considered a close contact.

How is Meningococcal Disease prevented?

Close contacts should consult their physicians immediately regarding the need for antibiotic protection. Casual contacts such as classmates and co-workers do not need preventive antibiotics. There are several vaccines available in Canada that prevent Meningococcal disease.

Sometimes, vaccines are offered to close contacts. It is important that the vaccine matches the type of bacteria in the person with Meningococcal Disease. Receiving a vaccine that does not match may delay the administration of the correct vaccine from 2 weeks to six months. Your physician may call York Region Community and Health Services to identify which vaccine is right for you.

- **Menjugate** is given to prevent infection by the *Neisseria meningitidis group C* bacteria. This vaccine provides high levels of long-term protective antibodies. Side effects may include, pain and redness at the injection site or headache. Rarely, there may be serious side effects, such as fever, hives or difficulty breathing.
  - The vaccine schedule for infants is 3 doses given with at least a four-week interval between each one.
  - Infants from 4 to 11 months of age who have not previously received the vaccine should receive 2 doses at least 4 weeks apart.
  - A single dose is recommended for children over 1 year of age and young adults not previously immunized.
- **NeisVac-C** is given to prevent infection from Neisseria meningitidis group C bacteria. Side effects include redness, tenderness or swelling at the injection site, headache, crying or irritability in infants and toddlers, drowsiness/impaired sleeping, nausea/vomiting/diarrhea, loss of appetite, slight fever. Final protective efficacy studies have not yet been performed. Data on the use of the vaccine in outbreak control are not yet available.

  - The dosage recommendation for infants over 2 months of age is 3 doses at least 1 month apart.
  - Children over 12 months, adolescents and adults require a single dose.

- **Menomune** is given to prevent infection by groups A, C, Y and W135 of the *Neisseria meningitidis* bacteria. Side effects may include, tenderness, pain, swelling and slight redness at the injection site.
  - The vaccine is recommended for people over the age of 2 years. In very specific cases, it may be used in children as young as 3 months.
  - Protection lasts only 3-5 years; therefore booster doses may be required in an outbreak situation.
- **Menactra** is given to prevent infection by groups A, C, Y and W135 of the *Neisseria meningitidis* bacteria. Side effects may include, tenderness, pain, swelling and redness at the injection site. In young children, irritability and drowsiness may also occur.
  - The vaccine is recommended for people between the ages of 2 and 55 years of age**.**
  - Only a single dose is required.
  - It is unknown yet if or when a booster dose of Menactra may be needed, but it is expected that the protection offered by Menactra lasts longer than that of Menomune.

Who should <u>not</u> receive the vaccines?

People should not receive the 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 (consult your Physician).
- have a history of Guillain-Barré syndrome (for Menactra).

What is the treatment for Meningococcal Disease?

Antibiotics are the medications commonly used to treat Meningococcal disease in adults and children. People who have had intimate or direct exposure to a person with Meningococcal disease should consult their Physician immediately. Early recognition of Meningococcal infection and prompt treatment greatly improves chances of survival.

For more information, please call
York Region ***Health Connection*** at 1-800-361-5653
or visit www.york.ca.