

What is meningococcal disease?

Meningococcal disease is a rare but very serious illness that usually appears as meningitis or septicaemia.

'Meningitis' means an inflammation of the protective coverings of the brain and spinal cord. 'Septicaemia' means blood poisoning, which is a more widespread infection throughout the body.

Meningococcal disease is caused by bacteria called 'meningococci'. There are a number of different groups of meningococci. In Victoria most disease is caused by Serogroup B. Serogroup C was common but is now rare due to immunisation.

How serious is meningococcal disease?

Although meningococcal disease is uncommon, it is a very serious disease. The infection can develop very quickly, and can be fatal in about 10 per cent of cases. If infection is diagnosed early enough and the right antibiotics are given quickly, most people make a complete recovery.

About a quarter of people who recover experience after-effects. Some of the more common after-effects include headaches, deafness in one or both ears, tinnitus (ringing in the ears), blurring and double vision, aches and stiffness in the joints, and learning difficulties. Most of these problems get better with time.

Where do meningococci come from?

Meningococci are common bacteria, and about one in 10 people 'carry' them at the back of the throat or nose. Carriers are more often young adults, and less often children and older people. Meningococci are only found in people, and never in animals or the general environment.

What is a meningococcal 'carrier'?

Almost all adults and children can carry these germs without ill effects. Research shows that being a carrier usually protects people against dangerous meningococci. People become carriers without knowing they have caught the germ, and will get rid of it naturally, without treatment, after a few weeks or months.

Who catches meningococcal disease?

Meningococcal disease can occur at any age, but babies and children less than five years of age are most at risk. Teenagers and young adults aged 15–24 years are also at increased risk.

For people who become sick, the average time between being infected and becoming ill is about three to five days, but can be up to seven days. Sometimes small outbreaks occur affecting more than one person, but usually each case is unrelated to any others.

People who get meningococcal disease are more than three times as likely to be in close contact with smokers. Recent viral illness (especially influenza) is also more common. Avoiding smoky and dusty places might also help to prevent infection.

What are the symptoms?

Someone with meningococcal disease will become very ill, usually feeling sicker than they have ever felt before. There are many symptoms of meningococcal disease, although a few are especially important.

Most cases may have only a few of these symptoms, and they hardly ever happen all at once.

The symptoms of meningococcal disease include:

In infants and young children:

- fever
- disinterest in feeding
- irritability
- extreme tiredness or floppiness
- dislike of being handled
- vomiting and/or diarrhoea
- turning away from light
- drowsiness
- convulsions or twitching
- rash of red-purple pinprick spots or larger bruises.

In older children and adults:

- headache
- photophobia (dislike of bright lights)

- fever
- vomiting and/or diarrhoea
- neck stiffness or aching
- backache
- joint pains and sore muscles
- general malaise, off food
- drowsiness, confusion
- rash of red-purple pinpoint spots or larger bruises.

Young children may not complain of symptoms, so fever, pale or blotchy complexion, vomiting, lethargy (blank staring, inactivity, hard to wake, or poor feeding) and rash are important signs. Signs and symptoms sometimes appear very quickly, and people with meningococcal disease can get much worse within a few hours.

In meningococcal septicaemia, a rash is always a very important sign. The rash can appear anywhere on the body.

You know your family and best friends better than anybody else. If somebody close to you has some of these signs, and appears to you to be much sicker than usual, seek medical help immediately. Young adults should not be left alone if they are sick. Early diagnosis and treatment is vital.

How is meningococcal disease spread?

The disease is difficult to spread. The germs cannot live for more than a few seconds outside a human body, therefore they cannot be picked up from water supplies, swimming pools, buildings or factories.

Only regular close prolonged household and intimate contact spread the bacteria. Close contacts in residential accommodation, such as student halls of residence and military camps, may be at greater risk of meningococcal disease.

How is meningococcal disease treated?

If a case of meningococcal meningitis or septicaemia is suspected, an antibiotic is given immediately by injection and the patient is admitted to hospital.

Can meningococcal disease be prevented?

There are no vaccines that protect against Serogroup B disease. Two vaccine types cover Serogroup C:

- Conjugate meningococcal C is given at 12 months of age as part of the National Immunisation Program.

This vaccine effectively protects against Serogroup C disease, and provides long lasting immunity.

- Polysaccharide meningococcal vaccines cover several serogroups not often seen in Australia and are useful for travelers to places such as Africa and Asia, and pilgrims to the Haj. However, they cannot be given to children under the age of two, and they only provide protection for about three years.

What happens when a case occurs?

Very close contacts of a case are given antibiotics to prevent further spread of infection. These people are members of the same household, a girl/boyfriend, and anyone who has stayed overnight in the seven days before the case became unwell. Other contacts, such as friends and work colleagues, do not usually need treatment. Whenever a case occurs, the Department of Health will advise what should be done, and will make sure all close contacts are treated with the right antibiotics to stop the infection spreading.

Only close contacts need to be treated. This will be organised by the Department of Health. Giving antibiotics to people who do not need them may cause problems.

Once a person has recovered from meningococcal disease he/she will not be infectious, and can safely return to child care, school, or work. Household contacts may return to school or child care once they have commenced an appropriate course of antibiotics.

What should I do if my child has had contact with meningococcal disease?

The disease is not normally spread through schools or work places. Watch carefully for any sign of illness in your child and seek attention immediately if you are concerned.

More information

The following websites provide further information:

Better Health Channel
www.betterhealth.vic.gov.au

Meningitis Foundation of America
www.musa.org

Meningitis Trust
www.meningitis-trust.org.uk

The Meningitis Research Foundation
www.meningitis.org.uk

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