

Appendix 2: Meningococcal disease: Information for the public

(This information sheet can be adapted to different settings)

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 Australia 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 5-10 percent of cases. Most people make a complete recovery if the infection is diagnosed early and antibiotic treatment commenced promptly.

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. Some people may have more serious complications, such as requiring skin grafts or amputations of fingers/toes or limbs.

Where do meningococci come from?

Meningococci are common bacteria and around 10-20 percent of people carry them at the back of the nose and throat without showing any illness or symptoms. 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 bacteria 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 and people of any age regularly exposed to active or passive tobacco smoking 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. Rarely, small outbreaks may occur affecting more than one person, but usually each case is unrelated to any others.

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. Signs and symptoms sometimes appear very quickly and people with meningococcal disease can get much worse within a few hours.

The symptoms of meningococcal disease include:

In infants and young children:

- fever
- disinterest in feeding
- irritability/fretfulness
- high-pitched or moaning cry
- 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, sore muscles, cold hands and leg pain
- general malaise, off food
- drowsiness, confusion
- rash of red-purple pinprick spots or larger bruises.

Young children may not complain of symptoms, so fever, pale or blotchy complexion, vomiting, lethargy (blank staring, floppiness, inactivity, hard to wake, or poor feeding) or rash are important signs.

In meningococcal septicaemia a rash is a very important sign. The rash can appear anywhere on the body and may vary from just one or a few small spots, especially early on, to later covering large areas of the skin.

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. Children and young adults should not be left alone if they are sick. Early diagnosis and treatment is vital.

If you are sent home by the doctor or hospital, it is important to return promptly for further assessment if symptoms get worse or do not improve.

How is meningococcal disease spread?

The disease is difficult to spread. The bacteria cannot live outside a human body and they cannot be picked up from surfaces, water supplies, swimming pools, buildings, food, drinks, pets or other animals. Spread of the bacteria is associated with regular close, prolonged and intimate contact.

The bacteria are passed between people in the secretions from the back of the nose and throat. This generally requires close and prolonged contact with a person carrying the bacteria who is usually completely well. Meningococcal bacteria are not easily spread by sharing drinks, food or cigarettes.

If a case of meningococcal disease occurs, people who live in the same household, sexual and other intimate contacts and close contacts in residential accommodation, such as student halls of residence and military camps, are at greater risk of infection than usual, although the overall level of risk remains very low.

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?

Six serogroups of meningococcal bacteria (A, B, C, W, X and Y) account for most cases of meningitis or septicaemia due to meningococcal bacteria. Vaccines are available in Australia for serogroups A, B, C, W and Y meningococcal disease. The Australian Immunisation Handbook 10th Edition, updated online version provides current guidance on meningococcal immunisation.

- Meningococcal C conjugate vaccine (MenCCV) - Available through the National Immunisation Program. Recommended for all children at 12 months of age.
- Meningococcal B vaccine (MenBV) - Available on private script. Recommended for infants and young children, adolescents, young adults living in close quarters, some laboratory personnel and individuals with certain medical conditions.
- Meningococcal vaccines (4vMenCV and 4vMenPV) protect against serogroups A, C, W and Y. Available on private script. Recommended for occupational exposures, travel and certain medical conditions. This can be also offered to those who wish to protect themselves or their family from these serogroups of meningococcal disease.

Check the National Immunisation Schedule and the relevant jurisdictional schedule for up to date information on currently funded vaccines, as schedules change from time to time. For example, in early 2017, some states implemented a time-limited adolescent ACWY vaccination program although the duration and target group for each program differs

What happens when a case occurs?

Public health authorities identify very close contacts of a case who are offered antibiotics to help prevent further spread of infection. These people are members of the same household, intimate contacts (e.g. boyfriends and girlfriends), and anyone who has spent a lot of time in the same dwelling as the case 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, public health authorities will advise what should be done, and will make sure all close contacts are treated with the right antibiotics to stop the infection spreading.

Once a person has recovered from meningococcal disease he/she will not be infectious and can safely return to childcare, school, or work. There are no restrictions on contacts of a case attending work, school or childcare, whether or not it is recommended that they take preventive antibiotics.

Antibiotics are given to close contacts to eliminate the bacteria from the throat and prevent the bacteria from being transmitted to others, just in case the contact may be an innocent carrier of the strain that caused illness. Clearance antibiotics are different to the antibiotics used to treat the infection and people who receive clearance antibiotics are still at some risk of developing the disease and therefore need to remain alert for any signs and symptoms.

What should I do if I or 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 and seek attention immediately if you are concerned.

More information

The following websites provide further information:

[The Amanda Young Foundation](http://www.amandayoungfoundation.org.au/) (www.amandayoungfoundation.org.au/)

[Meningitis Centre Australia](http://www.meningitis.com.au/) (www.meningitis.com.au/)

[Better Health Channel](http://www.betterhealth.vic.gov.au) (www.betterhealth.vic.gov.au)