

# Fact Sheet

## Meningococcal infection



### What is meningococcal infection?

Meningococcus is a type of bacteria which can make people sick very quickly. When it invades the blood stream it is called meningococcal septicaemia and when it spreads into the linings of the brain (the meninges) it is called meningococcal meningitis. It is treatable with antibiotics.

### Meningococcal septicaemia – what are the symptoms?

Meningococcal septicaemia can be very serious, it is a medical emergency and your local doctor should be called urgently and in most cases your child should be taken immediately to hospital. Children or young adults with meningococcal septicaemia are usually very ill. They can have a high fever and sometimes develop a red or purple rash (this looks like purple dots or bruises) however, it is important not to wait to see if the rash appears as it does not always develop. A useful test is to press a glass against the rash; if it stays the same colour and doesn't fade, then this is a more worrying rash. Children or adults with meningococcal septicaemia usually have the following symptoms:

- High fever.
- Red or purple rash.
- Cool hands and feet.
- Look pale.
- Lethargy and/or drowsiness.
- Have a fast heart rate.
- Diarrhoea and/or vomiting.
- Joint or muscle pains.

It is important to remember that often not all these symptoms are present.

### Meningococcal meningitis – what are the symptoms?

Meningitis is an infection of the lining of the brain (see also the [Meningitis](#) fact sheet). About half the children or adults with meningococcal meningitis have the same rash as those with meningococcal septicaemia. Some have no rash and at first the rash may consist of only a few very small spots.



*Purple rash on a child's arm*

Children or adults with meningitis usually have many of the following symptoms:

- Fever
- Headache
- Stiff neck
- Are pale
- Look unwell
- Have cold hands and feet (often up to the knees)
- Have a fast heart rate
- Complain that light hurts their eyes.
- Lethargy and/or drowsiness
- Irritability or confusion
- Loss of appetite or vomiting
- May become unconscious
- May have convulsions

# Fact Sheet

## Meningococcal infection



- Joint or muscle pains

If you are worried your child may have meningitis, you must take your child to your local doctor or hospital immediately. Remember that not all these symptoms can show at once.

### Carriers

10-30% of the population can carry the meningococcus (bacteria) in their throat at any time without getting sick. These people are "carriers" and they do not become ill at all. We don't fully understand why some people get sick and others don't. People who smoke are more likely to be carriers.

### How are meningococci spread?

The meningococcus bacteria is spread from the upper respiratory tract from one person to another person as a result of very close contact with his/her nose or mouth, eg. saliva. This may occur for example through coughing, sneezing or kissing. When in contact with a carrier, a person may also become a carrier or they may develop the disease. Becoming sick with meningococcal disease is more likely in the very young, following a recent cold or with exposure to a lot of tobacco smoke, particularly indoors or in a car.

### What is the outlook?

The outlook is much better if antibiotic treatment is started early in the illness. Most children and adults with meningococcal septicaemia or meningitis will recover with antibiotic treatment, without suffering any long-term problems. The illness can sometimes be devastating and about one in 10-20 people die from it. Sometimes, survivors of meningitis have long-term problems, such as deafness.

Skin lesions can sometimes be severe enough to require skin-grafting. Very rarely children or young adults may get gangrene and lose fingers, toes or even one or more limbs. With early antibiotic treatment most cases get completely better.

### What is the treatment?

The bacteria respond rapidly to treatment with an antibiotic, such as penicillin. Other treatment, such as a drip to give fluids, is also needed.

### Prevention

No vaccine offers 100% protection against meningococcal disease. So even if you child has had their meningococcal vaccination, please take them to your doctor or to hospital straight away if they have any symptoms of meningococcal disease.

There are 5 main serogroups (or strains) of meningococci, they are called A, B, C, W<sub>135</sub> and Y. In Australia, the most common cause of meningococcal disease is serogroup B. There is currently no licensed vaccine against serogroup B meningococcal disease. All serogroups can affect people of any age but serogroup B cases occur especially in children aged less than 5 years old and adolescents.

The next most common is serogroup C. A vaccine against serogroup C meningococcal disease has been used in Australia since 2003. All children aged 12 months of age are offered this vaccine as part of the National Immunisation Program. The duration of protection is unknown but may be many years if given at 12 months of age.

We would strongly advise your older children and/or adolescents receive the meningococcal serogroup C vaccine. Please talk to your doctor who will give you a prescription as you will need to buy the vaccine from the pharmacy.

# Fact Sheet

## Meningococcal infection



There is another vaccine which is used for serogroup A, C, W<sub>135</sub> and Y meningococcal disease. This vaccine doesn't work in the same way as the serogroup C vaccine we talked about above. The serogroup A, C, W<sub>135</sub> and Y vaccine doesn't provide more than a few years protection and is usually given to people travelling overseas for example to parts of Africa where lots of serogroup A disease occurs or to people attending the Hajj pilgrimage. This serogroup rarely causes infection in Australia.

When a child comes into hospital with meningococcal infection, a member of the Public Health Unit will contact your family to arrange preventative antibiotics and to ask a few questions about where you child has been in the last few days before getting sick. This is so that the Public Health Unit can check that there are no other meningococcal disease cases that have occurred at the same time as your child getting sick and to make sure that any one who needs antibiotics can get them. If pregnant, another antibiotic will be given instead. As meningococcal infection is an infection that has to be notified to the Public Health Unit (PHU) in your area, you will also be contacted by the PHU whose role would be to assist in contacting recent close contacts of your child (e.g. child care).

### Remember

- The great majority of children with fever and rash have a milder infection caused by a virus and not caused by a bacteria and thus do not have meningococcal disease.
- However, as meningococcal infection is serious, if you suspect your child may have a meningococcal infection because of the symptoms mentioned above, take your child to your doctor or hospital straight away, even if they have had the meningococcal C vaccination.
- If your child has turned 12 months of age and has not yet received their meningococcal C vaccine, contact your doctor as we strongly recommend your child be immunised.

This fact sheet is for education purposes only.  
Please consult with your doctor or other health professional  
to make sure this information is right for your child.

*This document was reviewed on 6<sup>th</sup> April 2010.*

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hospital at Westmead

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