

Can meningitis recur?

Once a person has had meningitis, they usually become immune to that particular type of meningitis but may still require vaccination to prevent recurrence. A person who has had one form of meningitis is no more likely to contract other forms of meningitis than any other person, unless they have a problem with their immune system, which is unusual. You should discuss the need for vaccination and any other concerns with your doctor.

Where can I get more support and information following meningitis?

In some instances hospitals will refer patients to a specialist rehabilitation centre for assessment and advice about rehabilitation.

Alternatively, patients may be referred to a physiotherapist or occupational therapist in their local community. Some people may experience physical difficulties following meningitis and/or meningococcal septicaemia and physiotherapists may help people recover movement and strength.

Occupational therapists may, when needed, also assist people in recovering skills and abilities enabling them to regain independence.

Consultants will normally see both children and adults who have had bacterial meningitis a few weeks after leaving hospital to check there are no concerns or complications.

What can be done to prevent other people getting it?

The most important way to prevent bacterial meningitis in a child is to make sure that they are fully immunized at the correct time. Vaccines prevent most but not all causes of bacterial meningitis. There are no vaccines against viral meningitis, but this is usually less serious.

Household contacts of those with bacterial meningitis may be at increased risk of developing infection themselves. The germs that cause bacterial meningitis are very common and normally live in the back of the nose and throat. The germs can

spread between people by coughing, sneezing and kissing but they cannot live for more than a few minutes outside of the body. People who are at increased risk of contracting the disease are usually people who have been living in the same household as the person who developed the disease or who had close contact with the patient within the seven days prior to onset of the disease. With meningococcal meningitis and Hib infections, antibiotics and possibly vaccines may be offered to these close contacts. They reduce, but cannot eliminate, the risk of family members or other people who are considered high risk contacts also becoming ill. Because of this, if contacts who have received antibiotics become unwell or exhibit some of the symptoms of meningitis or septicaemia, it is vital they also seek urgent medical attention.

Usually, other contacts such as school friends and workmates are normally not at any significant risk and generally do not need special treatment with antibiotics or investigation. However any doubts should be discussed with the Department of Health.

About the Meningitis Centre

The Meningitis Centre was founded in 1992 in association with the Western Australian Institute for Child Health Research (now the Telethon Institute for Child Health Research), by a small group of dedicated parents, medical researchers and health specialists. The Centre aims to offer support to meningitis sufferers and their families, to provide information on meningitis to parents, interested community members and health professionals and to support continued research into meningitis.

This pamphlet has been prepared by The Meningitis Centre for the parents of children who have suffered from this disease, in consultation with medical experts.

We thank Dr David Burgner, a Medical Advisor to The Meningitis Centre, Paediatric Infectious Diseases Specialist, Perth, Australia for his advice and Dr Tony Keil, Head of Microbiology, Princess Margaret Hospital for Children, Perth, Western Australia and the Communicable Disease Control Directorate, of the Western Australian Department of Health.

More Information

For more information about The Meningitis Centre and how it can help you contact:

The Meningitis Centre

Telethon Institute for
Child Health Research

100 Roberts Road, SUBIACO WA 6008

or PO Box 855 WEST PERTH WA 6872

Phone: (08) 9489 7791

Freecall: 1800 250 223

Fax: (08) 9489 7705



Produced by The Meningitis Centre

Acknowledgements to Meningitis Research Foundation & Meningitis Trust, UK.

Disclaimer:

The Meningitis Centre is a 'not for profit' organization based in Australia, not a professional medical authority.

The Meningitis Centre's literature provides general information about meningitis, not medical advice. Please consult your doctor to discuss the information or if you are concerned someone may be ill.



Recovering From Meningitis



A hospital stay resulting from meningitis can be traumatic and heartbreaking, with the possibility of great uncertainty to follow. It will test your patience and understanding, but remember – you can gain comfort, strength and knowledge. There are people who can encourage and support you.

What is meningitis?

Meningitis is the inflammation of the meninges (the membrane lining of the brain and spinal cord). It usually refers to infections caused by viruses, bacteria and more rarely by fungi, and other microorganisms such as parasites. Bacterial meningitis is life-threatening and can cause death within hours, if not properly treated. Viral meningitis is usually less serious, but some viruses can cause severe infections. There are many causes of meningitis and whilst the symptoms are similar, treatments and outcomes vary.

Who gets meningitis?

Meningitis can affect people anywhere, at any age and at any time. However, meningitis tends to be more common during winter and early spring and affects mostly young children (less than 5 years) and teenagers/young adults (15-24), the elderly and indigenous people. Adults may also develop meningitis and often experience temporary after-effects which usually last from days to months.

Bacterial meningitis

Bacterial meningitis is the most common life-threatening type of meningitis and can cause death within hours. Most cases of bacterial meningitis in children and adults are caused by meningococcal and pneumococcal bacteria.

Most cases of pneumococcal meningitis and certain types of meningococcal meningitis can be prevented by the newly introduced conjugated pneumococcal vaccine and conjugated meningococcal 'C' vaccines.

In the past, *Haemophilus influenzae type b (Hib)* meningitis was the most common cause of bacterial meningitis in children but Hib infection has almost been eliminated by vaccines that were introduced in Australia in 1993. The most common types of bacterial meningitis in newborn babies are caused

by *Group B streptococcus (GBS)*, *Escherichia coli* and more rarely by *Listeria monocytogenes*.

Viral meningitis

Viral infections are very common, whereas viral meningitis is much less common and usually caused by only a few viruses (mainly enteroviruses and less commonly herpes simplex virus.) Most cases of viral meningitis are mild and most people make a good recovery. Viral meningitis is more common in children but it can occur in any age group.

Viral meningitis is not generally a life-threatening disease. However on rare occasions viral meningitis can be life-threatening or cause longer lasting after effects, particularly if people have problems with their immune system. Very occasionally, people can be left with serious long term neurological after effects particularly with infection with herpes simplex virus.

Recovery is dependent upon the body developing an effective immune response to the infecting virus and usually occurs within a week or two. Consequently most people recover within a week or two. However some people may have recurrent headaches and experience tiredness, problems concentrating and/or may be irritable or depressed. Concerns and possible after-effects should be discussed with a doctor.

After Hospital

Most people will make a full recovery after meningitis, but it can take time.

A spell in hospital may be upsetting particularly for young children and their parents. Young children frequently find the experience of being confined to hospital with meningitis unsettling and this may cause the child to be clingy, have temper tantrums, sleep poorly or even revert to bed-wetting for a short period of time after being discharged from hospital. Consequently, children may need some extra support and understanding and help and encouragement with activities such as feeding, dressing and showering.

Summary of possible after-effects of meningitis

- General tiredness
- Recurring headaches
- Difficulty in concentration
- Short-term memory lapses
- Clumsiness
- Giddiness/Balance problems
- Depression
- Temper tantrums
- Bouts of aggression
- Mood swings
- Learning difficulties/reduced ability in some areas of school work*
- Tinnitus (i.e. ringing in ears)
- Joint soreness/stiffness
- *Changes in vision or loss of vision#*
- *Hearing impairment#*
- *Epilepsy#*
- *Long-term problems with cognition and brain function#*

Any of these symptoms should be discussed with your doctor during follow-up medical consultations.

* It is important to talk to teachers about any problem a child may be experiencing.

These are relatively rare.

However it is important to remember that many children and adults with meningitis recover without experiencing the above after-effects.

The most serious complications

Whether a person has after-effects following meningitis depends on a range of factors and information specific to the individual who experienced the disease, and should be discussed with the patient's doctor. The infections that cause meningitis can sometimes cause injury to the brain and result in permanent after effects.



Occasionally an individual who has had meningitis may be left with long-term problems with learning, memory, thinking or reasoning skills and these issues can vary in intensity. Management of these issues should be discussed with the person's doctor.

One of the most common serious complications is deafness, following bacterial meningitis, and this may be temporary or permanent.

Anyone who has had bacterial or viral meningitis should have a hearing test – this is especially important for young children where hearing loss is often more difficult to detect. This should be organised by your child's paediatrician as part of their on-going care.

During the infection with meningococcus, septicaemia (blood poisoning) can occur, and in extreme cases can result in a diminished blood supply to the feet, toes, hands and fingers. This may result in the need for skin grafts or even amputation.

Individuals who have meningitis can sometimes have fits or convulsions during the acute stage of the illness. Occasionally a person's brain is injured as a result of the meningitis infection and they can be left with recurring seizures or epilepsy. A patient's doctor will discuss the management and treatment of the epilepsy.

Be patient when recovering

As the list of possible after-effects illustrates, some of the most common after-effects are not 'visible on the outside', but can nevertheless affect the patient's quality of life dramatically. For example, if a sufferer is left feeling tired, depressed and unable to concentrate, it may be weeks or even months before they are able to return to a normal routine. So the more stress free the recovery period is, hopefully the sooner the patient will improve. Patients shouldn't rush themselves, but rather listen to what their body is telling them and not attempt too much too soon. Many sufferers have found success using 'complementary' medicines to deal with after effects, but these have not been subject to proper clinical trials.