

## Viral Meningitis - the Facts

This fact sheet provides information about viral meningitis and answers some frequently asked questions. You will find information about signs, symptoms and emergency action to take on our website [www.meningitis.org.nz](http://www.meningitis.org.nz)

You can also request any of our information materials by contacting [info@meningitis.org.nz](mailto:info@meningitis.org.nz)

Words highlighted in blue are explained in a glossary on the bottom of this information.

### Key Facts

- Viral meningitis can affect anyone.
- Many cases occur in New Zealand each year.
- Although most people will make a full recovery, some are left with serious and debilitating after-effects.

### What is viral meningitis?

Viral meningitis is an infection that causes inflammation of the membranes that surround the brain and the spinal cord. These membranes are called the meninges – they help protect the brain from injury and infection. Viral meningitis is more common than bacterial meningitis and although rarely life-threatening, it can make people very unwell. Most people make a good recovery, but for some recovery can be slow and after-effects long lasting.

As viral meningitis rarely threatens life, generally a lot less is understood about it and the effect it has on sufferers. People can be left feeling that they are not taken seriously and are often not offered information and support during their recovery. This fact sheet can help you explain to others what can be expected following viral meningitis.

There are many cases of viral meningitis each year in New Zealand. Most cases are not severe enough to need hospital admission and treatment. Even in those requiring hospitalisation it is often not possible to identify the specific viral cause.

Many different viruses can cause meningitis, the most common are a group called enteroviruses.

### What causes viral meningitis?

These viruses live in the intestines and can commonly cause colds, sore throats, stomach upsets and diarrhoea. Only rarely do these viruses spread through the body to the meninges and cause meningitis.

Other viruses that cause meningitis include mumps and measles. An MMR vaccine (measles, mumps and rubella) is funded and available to all children from 12 months of age and to adults born on/after 1st January 1969 who have not completed a 2 dose course of MMR to prevent meningitis caused by mumps and measles.

Mollaret's meningitis is a recurrent form of meningitis – a rare condition believed to be caused in many cases by infection with a member of the herpes family of viruses. If you have experienced viral meningitis more than once, we would encourage you to ask your doctor to investigate it to try and determine the cause.



### Who gets viral meningitis and why?

Viral meningitis can affect any age group, but it is most common in young children as their body's defences are not fully developed. If a virus invades the body their immune system cannot provide resistance to fight off infection.

Because many different viruses can cause meningitis, the way in which the virus is spread will depend on its type.

For example, enteroviruses are carried harmlessly in the intestines of both children and adults, and carriage of these viruses helps us to build up natural immunity to infection. Spread of these viruses is common and they can be passed from person to person by coughing, sneezing and on unwashed hands. Practising good hygiene, such as washing hands after going to the toilet, will help to prevent the spread of viruses that are passed in faeces.

### How does viral meningitis develop?

Occasionally, viruses defeat the body's defences and cause infection. If this occurs, the virus can spread through the body to the meninges and cause meningitis. When the virus infects the meninges, tiny blood vessels in the membranes are damaged. This allows the virus to break through and infect the [cerebrospinal fluid \(CSF\)](#). The meninges become inflamed and pressure around the brain can cause nerve damage. Pressure on the brain can produce the specific symptoms associated with meningitis such as:

- Severe headache
- Dislike of bright lights (photophobia)
- Neck stiffness
- Nausea and vomiting
- Confusion and drowsiness
- Loss of consciousness
- Convulsions/seizures

Many people will only experience flu-like symptoms and will never be diagnosed with viral meningitis. For others, the symptoms can be more severe and they may be hospitalised with suspected bacterial meningitis. In hospital, various tests can be carried out to confirm the type of meningitis and treatment is started accordingly.

One of the main investigations carried out to test if someone has meningitis is a [lumbar puncture](#). This allows the doctor to quickly make a diagnosis of meningitis by analysing the CSF that bathes the meninges. This fluid becomes infected when a patient has meningitis.

Viruses may also cause inflammation of the brain itself, a condition called encephalitis. This is a very serious condition, sometimes resulting in severe brain damage.

### How is viral meningitis treated?

Antibiotics are not effective against viruses, although, in some instances, antibiotics may be started on admission to hospital because the cause of meningitis is not known. Antibiotics are usually discontinued if viral meningitis is diagnosed.



There is no specific treatment for most cases of viral meningitis. Patients need to be hydrated with fluids, given painkillers and allowed to rest in order to recover.

### **What happens when there is a case?**

Viral meningitis is not generally considered to be contagious; therefore, contact with someone who has the illness does not increase the risk of disease to others. Although viruses spread from person to person, linked cases of viral meningitis are extremely unusual and almost all cases occur on their own.

### **What happens after viral meningitis?**

The majority of people who get viral meningitis will make a good recovery with no long lasting after-effects. However, a number of people will be left with a variety of problems, some serious enough to cause permanent disability.

The after-effects of meningitis usually reflect damage to various areas of the brain. While the after-effects of viral meningitis are not usually as severe as those of bacterial meningitis, they can still be long-lasting. Commonly occurring after-effects include:

- Exhaustion
- Headaches
- Memory loss
- Anxiety
- Depression
- Dizziness/balance problems
- Hearing difficulties

Various other after-effects have also been reported including personality changes, aching joints or limbs, sight problems, learning difficulties, speech and language problems, noise intolerance and light aversion.

Because viral meningitis is very rarely life-threatening, many sufferers feel that their illness is taken less seriously and the after-effects they experience are not always acknowledged.

### **Follow-up Care**

There is no specific guidance for hospitals for the follow-up of viral meningitis patients. The result is that many people face their recovery alone. If you have not been offered a follow-up appointment, we would always recommend that you make an appointment with your own doctor, giving you the opportunity to ask questions and make them aware of what you have been going through. Taking this fact sheet with you, could help you discuss some of the questions raised and any concerns you may have.



## Glossary

### Cerebrospinal Fluid (CSF)

A protective fluid that flows around the brain and spinal cord, helping to maintain healthy cells.

### Enteroviruses

A group of viruses that can cause meningitis. When an enterovirus is identified it is usually either a coxsackie virus or an echovirus.

### Inflammation

A response of the body tissues to injury or irritation. The response is characterised by redness, swelling, heat and pain.

### Lumbar puncture

A procedure to remove CSF from below the base of the spinal cord.

### Meninges

Three protective membranes (layers of tissue) that surround the brain. These are called the dura mater, arachnoid mater and pia mater.

### National Immunisation Schedule

A planned programme of vaccines which provides protection against a range of infectious diseases.

For more information, visit

### Vaccine / vaccination

A preparation, usually an injection, given to encourage the body to produce antibodies which help fight infectious disease. The preparation commonly contains a harmless extract prepared from the disease-causing organism.

### Viruses

Microbes that are smaller than bacteria. There are many types, some of which can cause disease in humans, e.g. enteroviruses.

### Resources

Information provided by Meningitis Now December 2019

More information can be found at [meningitisnow.org](http://meningitisnow.org) and [meningitis.org](http://meningitis.org)



## Viral Meningitis Survey by Meningitis Now

There are an estimated 6,000 cases of viral meningitis each year in the UK. A survey\* conducted by Meningitis Now has shown that viral meningitis is leaving 97% of those responding with debilitating after-effects.

Often compared to bacterial meningitis as the 'milder strain' with a short recovery period, viral meningitis is leaving sufferers with exhaustion, headaches, memory loss, depression, anxiety and hearing difficulties – many people have to take long periods off education or work, and struggle with day-to-day tasks that so many people take for granted.

It is common to hear people say that they were made to feel less important because they 'only' had viral. This survey shows that victims are suffering with after-effects long after their experience, confirming that viral meningitis is not always a 'mild' disease.

\*Online survey completed by over 450 people who have experienced viral meningitis, July - September 2012. The survey was conducted by Picker Institute Europe on the Meningitis Trust's website [www.meningitis-trust.org](http://www.meningitis-trust.org)

### Summary of results

- After-effects were experienced by 97% of respondents:
  - > Exhaustion (78%)
  - > Headaches (70%)
  - > Memory loss (50%)
  - > Anxiety (37%)
  - > Depression (37%)
  - > Dizziness/balance problems (37%)
  - > Hearing difficulties (23%)(Respondents were asked to tick all that were applicable to them)
- A range of other after-effects were reported by smaller numbers of respondents and included personality changes, aching joints or limbs, sight problems, learning difficulties, speech and language problems, noise intolerance and light aversion.
- Over half of all respondents said that viral meningitis had caused them difficulty at work or in education:
  - Many felt that family, friends, health professionals or employers did not understand the impact of viral meningitis, with the comments reflecting many people's experience.
  - Made to feel 'a fraud' because of the assumption that most people make a full recovery.
  - Difficult to communicate the impact to others.
  - Memory problems had a significant impact on daily life.
- 10% of respondents were still experiencing after-effects 6–12 months after the initial illness, and an additional 7% had after-effects that lasted for more than a year.



- Over 40% of respondents were not given any information about viral meningitis and a further 46% were not given enough information.
- The internet was the main source of information if respondents searched for themselves.
- Just under a third of respondents had treatment or therapies for the after-effects of viral meningitis.