Viral Meningitis
The Facts

This fact sheet provides information about viral meningitis and answers some frequently asked questions. This should be read in addition to our 'What is meningitis?' leaflet, which provides more information on signs and symptoms and emergency action to take. You can request a copy by contacting our 24-hour nurse-led helpline on **1800 523 196.**

Words highlighted in **blue** are explained in a glossary on the back page.

What is viral meningitis?

Viral meningitis (also called aseptic meningitis) is an infection that causes **inflammation** of the layers that surround the brain and spinal cord. These layers are called the **meninges** - they help to protect the brain from injury and infection. Viral meningitis is far more common than bacterial meningitis, and although rarely life-threatening, it can make people very unwell. It is usually a mild disease and most patients make a complete recovery within a couple of weeks.

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

There are many other viruses that can cause meningitis. The mumps virus was the most common known cause of viral meningitis in young children under five years of age before the introduction of the MMR (Measles, Mumps and Rubella) vaccine. The herpes simplex virus can also cause meningitis.

Although extremely rare, some viruses can cause recurring meningitis. This is known as Mollaret's meningitis.

Key points

- Viral meningitis is usually a mild disease but it can make people very unwell.
- Hundreds of cases occur each year.
- Most cases occur in babies and children.
- Although most people will make a full recovery some are left with serious and debilitating after-effects.

How many cases of viral meningitis are there each year?

It is not known how many people get viral meningitis each year in Ireland as most cases are not severe enough to be reported to a doctor, or need hospital treatment. In the last 10 years notifications ranged from 23 - 161 but experts believe there are many hundreds of cases and even in those requiring hospitalisation it is often impossible to identify the specific virus.

Can viral meningitis be prevented?

Yes, some types of viral meningitis can be prevented with **vaccination**. Vaccines are the only way to prevent infectious diseases like viral meningitis.

A routine vaccination (MMR) is available as part of the childhood immunisation schedule to prevent meningitis caused by mumps and measles.

Who gets viral meningitis and why?

Viral meningitis can affect any age group but is more common in babies and children. Babies and young children are more at risk because their body's defences are not fully developed. If the virus invades the body their immune system cannot provide resistance to fight off infection.

Freephone 24-hour nurse-led helpline
1800 523 196
www.meningitis-trust.ie

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.

What happens in the body?

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, the blood vessels in the lining of the brain are damaged. This allows the virus to break through and infect the **cerebrospinal fluid (CSF)**. The meninges then become inflamed and the pressure around the brain can cause nerve damage. Pressure on the brain can produce the specific symptoms associated with meningitis:

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

Many other symptoms can occur with this disease.

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.

A small number of viruses can cause inflammation of the brain itself, this is called encephalitis. This is a very serious condition which frequently results in severe brain damage.

How is viral meningitis treated?

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 make as complete a recovery as possible.

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

If herpes simplex virus has been identified, treatment with Aciclovir is possible. This treatment has been shown to be effective in killing this particular virus.

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 risk of disease to others. Although viruses are spread from person to person, linked cases of viral meningitis are extremely unusual and almost all cases occur on their own although outbreaks do occasionally occur.

What happens after viral meningitis?

The majority of people who get viral meningitis will make a full recovery with no lasting after-effects. However, a small number of people will be left with serious problems that may result in permanent disability.

The after-effects of meningitis usually happen because of 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.

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

Recovery from viral meningitis can be very slow but is usually complete. However, sufferers can still experience headaches, tiredness, depression, memory loss and concentration problems. Whatever the after-effect, mild or severe, meningitis can change a person's life forever.

More detailed information about the after-effects of meningitis is available in our 'After meningitis' booklet. To request a copy please phone our 24-hour nurse-led helpline on **1800 523 196**.

Find out more

- **Meningitis Trust**
  www.meningitis-trust.ie
  Information about meningitis and the work of the Meningitis Trust.
  www.meningitis-learning.org
  Learn more about meningitis by playing online quizzes and touring the virtual body invasion.

- **Health Protection Surveillance Centre**
  www.hpsc.ie
  The Health Protection Surveillance Centre (HPSC) is Ireland's specialist agency for the surveillance of communicable diseases

- **Meningitis a Guide for Families (1997)**
  J Simon Kroll, Andrew J Pollard, Parviz Habibi – publisher, Publishing Solutions Ltd (UK). A recommended read for parents. This book provides excellent information and uses case studies to explain meningitis and meningococcal disease.

- **Need to know meningitis (2004)**
  Kristina Routh – Publisher, Heinemann Library. This comprehensive and easy to understand book traces the history, incidence and consequences of meningitis.

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 around the spinal cord.

Meninges
The protective membranes that surround the brain. These are called the dura mater, arachnoid mater and pia mater.

Vaccine / vaccination
An injection given to encourage the body to produce antibodies which help to fight infectious disease. The injection contains small particles of 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.

The Meningitis Trust

We, the Meningitis Trust, are a registered charity set up in Ireland in 2001. We are committed to increasing understanding of the disease and providing specialised professional services to anyone who has been affected. These services offer emotional and practical support to help people rebuild their lives.

Here are some of the ways we do this.

24-hour nurse-led helpline – a Freephone service, providing information and support seven days a week

Home visits – trained staff offer information and support in people's homes

Professional counselling and bereavement support – confidential counselling and bereavement support for people who have had meningitis and their families

One-to-one contacts – putting people affected by meningitis in touch with volunteers who have also experienced the disease

This is only made possible by donations from people like you, as we rely almost entirely on voluntary support to fund our work.

If you have any questions or wish to discuss anything in this fact sheet in more detail, please phone our 24-hour nurse-led helpline.

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1800 523 196
www.meningitis-trust.ie

The Meningitis Trust

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