

# Measles

Measles is an acute infection caused by the measles virus, Rubeola. It is one of the most contagious diseases known to man. 30 million people are affected each year and 50 people die from the disease every hour.

## Symptoms

Measles symptoms develop 9 - 11 days following infection and last up to 14 days. Initial symptoms include fever, headache, runny nose, cough and conjunctivitis (red, watery eyes). The rash usually starts on day 4 and lasts up to 10 days. The flat red or brown blotches appear first on the forehead and spread downwards over the face, neck and body.

## Spreading measles

Although measles is usually a childhood disease, anyone who has not been immunised, through vaccination or infection with the virus, can become infected at any time in their life, especially where the virus is endemic. The virus is caught through direct contact with, or through coughs or sneezes from, an infected person. It remains active and contagious in the air or on infected surfaces for up to two hours.

## Treatments

There is no specific treatment for measles. Patients are advised to drink plenty of fluid and can take paracetamol to reduce the fever. Children do not usually die as a direct result of measles infection, but from its complications. These are more likely to occur in those aged under 5 or over 20.

## Complications

Complications from measles are quite common as the virus weakens the body's immune defences. The most serious complications include:

- ▶ blindness
- ▶ severe diarrhoea and dehydration
- ▶ ear infection (5 - 15 % cases)

- ▶ severe respiratory infection (5 - 10 % cases)
- ▶ inflammation of the brain (encephalitis) – 1 in 1000 cases, resulting in brain damage in a quarter of those affected.

SSPE (subacute sclerosing pan-encephalitis) is the most severe complication of measles, although it is rare (occurring in 1 in 10,000 cases). SSPE usually occurs on average 8 years after the initial illness and is a slowly progressive brain infection, which can last for years and eventually results in death.

## Immunity is for life

Vaccination or infection with the virus leads to permanent immunity. The disease is now rare in the UK because of high levels of immunisation. Measles vaccine is one of the components of the combined MMR (measles, mumps and rubella) vaccine, which contains three live, attenuated viruses. There are two licensed MMR vaccines:

- ▶ Priorix (GlaxoSmithKline)
- ▶ MMR II (Aventis Pasteur).

There is no single antigen measles vaccine licensed in the UK.

## Measles cases in 2008

There are reports of 1217 confirmed cases of measles in England and Wales up to the end of November 2008. This compares to 971 for the whole of 2007, indicating that cases of measles are still currently on the rise. The increase in cases of measles is believed to be primarily due to the effect of the anti-MMR campaign.

There is a worry that many countries in Europe will fail to meet goals set by the World Health Organization (WHO) for the elimination of measles.

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The Society for General Microbiology (SGM) Microbiology Awareness Campaign (MAC) aims to highlight the important issues relating to microbiology. Through its many members, the SGM can offer impartial and expert information on all microbiological topics. Enquiries are welcome. Contact SGM, Marlborough House, Basingstoke Road, Spencers Wood, Reading RG7 1AG (t 0118 988 1830; f 0118 988 5656; e pa@sgm.ac.uk).

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