This fact sheet aims to provide information about the vaccines that protect against different forms of meningitis. Further meningitis information can be found at www.MeningitisNow.org. You can also request any of our information materials by contacting our Meningitis Helpline on 0808 80 10 388.

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

**Key points**

- Vaccines are the only way to prevent meningitis.
- Due to a recent rise in Men W cases, all 14 – 18 year olds will soon be offered a Men ACWY vaccine.
- Men B vaccine will now be introduced into the Childhood Immunisation Programme

**What are vaccines and how do they work?**

Vaccines are given to help the body’s immune system fight infection. They contain antigens which may be purified, harmless components of the germ (bacteria or virus) that can cause disease. In the case of some virus vaccines, the antigen can be a weakened (attenuated) version of the virus that is not capable of causing serious infection, but can stimulate an immune response. When a vaccine is injected into the body, the immune system is stimulated to produce antibodies in response to these antigens. After vaccination, if someone comes into contact with the germ itself, the body will recognise it and have the ability to fight it.

A different vaccine needs to be given to protect against each infection, and some vaccines need to be given more than once to build up enough protection.

Until there are vaccines to prevent all types of meningitis and septicaemia it is vital to know the signs and symptoms.

**Which vaccines are available to protect against meningitis?**

Effective vaccines are available to prevent some types of meningitis. The following vaccines, except BCG, are offered routinely in the UK. The BCG vaccine is offered to babies, children and older people who are most at risk.

**Meningococcal**

Meningococcal bacteria can cause meningitis and septicaemia. There are five groups; Men A, Men B, Men C, Men W and Men Y which commonly cause disease. While meningococcal disease affects all age groups, babies and young children, and teenagers and young adults are at a higher risk.

**Men C** vaccine is offered to babies at 3 and 12-13 months of age as part of the childhood immunisation programme. Since the introduction of the Men C vaccine in 1999, cases of Men C disease have fallen by over 90% in all age groups.

**Men B** is the most common cause of meningococcal disease in the UK. Babies under one are most at risk, with numbers of cases peaking around 5 or 6 months of age.
The new Men B vaccine (Bexsero®) will be introduced into the childhood immunisation programme from 1 September 2015. The vaccine will be offered to babies from 2 months of age. A total of three doses will be given at 2, 4 and 12 months of age. Babies who are already 3 and 4 months old when the vaccine is introduced will also be offered it as part of a one-off catch-up programme.

The vaccine is already available on the NHS for a small number of children who are at increased risk of infection. These include children with no spleen or those with a disorder of the immune system called complement deficiency. Men B vaccine is still available privately and you should consult your own GP surgery for details.

Men ACWY will be introduced as a routine vaccine from August 2015. This vaccine offers protection against four groups of meningococcal bacteria; A, C, W and Y.

Men W has historically been rare in the UK but since 2009 cases of Men W have increased (year on year) and continue to do so. A particularly aggressive strain of Men W is causing disease in all age groups but there has been a significant increase in university students.

From August 2015 GP practices will call young people aged 17 – 18 (school year 13) and older university entrants (aged 19 – 25) to offer one dose of the vaccine. The vaccine is particularly important for those preparing to head off to university as they are at greater risk. The same age groups will also be offered the vaccine in 2016 and 2017.

From Spring 2016 the Men ACWY will replace the Men C dose which is currently offered to year 9 or 10 (depending on local arrangements). This school-based programme will also provide a catch-up to include pupils in year 11 (15 and 16 year olds).

Teenagers and young people are a high risk group for meningitis and are also more likely to carry meningitis causing bacteria in the back of their throats. The introduction of the Men ACWY for 13 – 18 year olds will improve protection for this high risk group and also help stop the bacteria spreading to the wider population.

Pneumococcal

Pneumococcal bacteria can cause meningitis, and less commonly septicaemia. There are over 90 different strains of pneumococcal bacteria. The risk of pneumococcal meningitis is highest in children under 18 months of age. Two vaccines are currently available to prevent pneumococcal disease.

A Pneumococcal Conjugate Vaccine (PCV) is available as part of the Childhood Immunisation Programme. It is routinely offered at 2, 4 and 12-13 months of age. PCV protects against 13 different strains of pneumococcal bacteria which cause invasive disease (including meningitis) in the UK under 5s.

A Pneumococcal Polysaccharide Vaccine (PPV) is also available. This protects against 23 strains of pneumococcal bacteria, but only has a limited period of protection, and is not effective in the under 2s. This vaccine is routinely offered to people aged 65 years and over.

Pneumococcal vaccinations are also recommended for adults and children who are at increased risk of pneumococcal disease, for example, those with severe asthma, chronic heart disease, diabetes mellitus and those with cochlear implants. Anyone who has had pneumococcal disease, including meningitis, should actively seek vaccination.

For more information about any of these vaccines, please contact NHS immunisation information - www.nhs.uk.

Hib - Haemophilus influenzae type b (Hib) bacteria can cause meningitis and septicaemia (blood poisoning). Before the vaccine was introduced in 1992, Hib was the leading cause of meningitis in children under 5 years of age, with around 800 cases and 25 deaths reported each year.

Cases of Hib meningitis are now rare, with around 30 – 40 cases reported annually in the UK. Hib is part of the combined vaccine that protects against diphtheria, tetanus, pertussis (whooping cough), polio and Hib. This combined vaccine is offered to babies at 2, 3 and 4 months of age, with a booster dose given at 12-13 months of age. The booster vaccine is a combined vaccine for Hib and Men C.
TB
TB meningitis is caused by the bacterium *Mycobacterium tuberculosis*. The BCG vaccine gives good protection against TB meningitis and is effective in babies and young children. The current programme of vaccination in the UK targets babies, children and older people who are most likely to catch the disease.

BCG vaccinations may also be recommended for people who have an increased risk of developing TB, such as:
- health workers
- people who have recently arrived from countries with high levels of TB
- people who have come into close contact with somebody infected with respiratory TB.

Mumps
The virus that causes mumps is a common cause of meningitis and, in an unvaccinated population, mumps is a major cause of acquired deafness. The routine MMR vaccine protects against mumps as well as measles and rubella (German Measles). MMR vaccine is given at 12-13 months of age with a booster dose before the age of five.

Are vaccines safe?
Yes. Before a vaccine can be licensed for use in the UK, it is thoroughly tested for its safety and effectiveness. Vaccines are constantly monitored to ensure that any adverse reactions and rare side effects are recorded for further investigation.

How effective are the vaccines?
Vaccines have been very successful in reducing cases of meningitis, with thousands of lives being saved as a result. In the UK, many diseases are no longer a threat and this is because of our high immunisation rates.

Vaccines do not just offer protection to the person receiving them, but also help protect others in the community, particularly children, who for medical reasons cannot be immunised.

Common symptoms that can occur following vaccination, for example, redness and swelling around the injection site and fever are natural reactions of the body’s immune system. These symptoms will usually subside in a very short period of time, and are a good indicator of a successful vaccination.

Meningitis and travel
A travel vaccine is available to prevent some groups of meningococcal disease.

Group A causes epidemics in Sub-Saharan Africa and results in thousands of deaths each year.

In recent years, group W has caused outbreaks in pilgrims travelling to the Hajj in Saudi Arabia, and it is now a legal requirement that these visitors are vaccinated against W.

Men ACWY vaccine is available for travellers to 'at risk' areas of the world.

BCG Vaccine is also offered to anyone travelling to parts of the world that have a high incidence of TB.

Future vaccines
There are still types of meningitis that can’t be prevented by current vaccines. It is vital that research continues, to both develop new vaccines, and improve existing ones.

Find out more
- **Meningitis Now**  
  www.MeningitisNow.org  
  Information about meningitis and the work of Meningitis Now.

- **NHS immunisation information**  
  www.nhs.uk  
  Information about vaccination from NHS Choices.
Glossary

**Antigen**
A substance, usually a protein, that stimulates the production of antibodies.

**Antibody**
A protein produced by the body as part of the immune response. These proteins help the body to fight infection.

**Bacteria**
Single-celled micro-organisms, of which there are many types. Some types can cause disease in humans.

**Childhood Immunisation Programme**
A planned programme of vaccines available to all children, which protects them from a range of infectious diseases. For more information see www.nhs.uk.

**Conjugate vaccine**
A vaccine made by attaching the purified outer coating of the disease-causing organism to a carrier protein. These vaccines give long-term protection and are effective in all age groups.

**Fever**
An abnormal rise in body temperature over 37.5°C.

**Immunity / immune response**
The body’s ability to recognise and resist specific infectious diseases. The immune system responds to infection by producing antibodies.

**Polysaccharide vaccine**
A vaccine made from the purified outer coating of the disease-causing organism. These vaccines give short-term protection and are not effective in children under 18 months of age.

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

Meningitis Now is the UK’s largest meningitis charity and is here to help you, when you need us and for as long as you need us. We are saving lives and rebuilding futures through awareness, research and support.

We offer practical, emotional and financial support for all those living with the impact of the disease. We support individuals, and their families, including those who have been bereaved, helping to rebuild lives after meningitis and septicaemia.

We can:

- Listen; and answer your questions about meningitis and septicaemia
- Talk to you about your individual experience and how we can tailor our help to you
- Visit you in your own home and provide support locally to you
- Put you in touch with others who have been through it too
- Provide financial assistance for unexpected costs following meningitis
- Support you and those closest to you; children, teenagers and adults
- Make you a priority; we have no waiting lists for our services.

If you have any questions, or are interested in finding out how we can help, please get in touch.

**Meningitis Helpline:** 0808 80 10 388 (UK)
Available 9am to 10pm

**Email:** helpline@meningitisnow.org

We are proud of the work we do, but we can’t do it alone. We rely on voluntary donations and need help from people like you. Every penny, pound, hour and day given makes a big difference. Find out how you can help www.MeningitisNow.org

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References for the content of this fact sheet are available on our website.