



## MenACWY vaccine

The MenACWY vaccine was introduced in the UK in August 2015 to protect teenagers against a harmful strain of meningococcal W (MenW) disease which had been rapidly rising since 2009.

The MenACWY vaccine was introduced in Ireland from September 2019 for all first year secondary school students.

A catch up campaign targeting older age groups was also initiated in the UK, but uptake of the vaccine in older teenagers and young adults has been low. No catch up campaign has been introduced in Ireland.

MenACWY vaccine is offered to teenagers in school year 9 (England and Wales), year 11 (NI) and S3 (Scotland). If you are over 14 and did not get this vaccine at school or from your GP you can still get the vaccine if:

- You are starting university for the first time and aged under 25
- You were born after 1st September 1996 (England and Wales) or born after 2 July 1996 (Northern Ireland)
- You are in Scottish School year S3 to S6

UK residents can check their eligibility and find out where to get the vaccine at <https://www.meningitis.org/action/one-life-one-shot>

### **Why do we need to vaccinate teenagers with MenACWY vaccine?**

MenACWY vaccine directly protects vaccinated people from four different strains of meningococcal meningitis and septicaemia (groups A, C, W & Y) and also stops them from carrying the bacteria in the back of the nose and throat.

It is particularly important to protect teenagers because as well as being at increased risk of developing the disease, they are also the most likely to carry and spread the bacteria to others. Vaccinating teenagers is therefore essential to prevent the spread of infection amongst the wider population.

### Importance of protection against MenW disease:

Since 2009, cases of MenW disease have been rising steeply in England and Wales. For example, in 2014/15 MenW accounted for 24% of cases of meningococcal disease in England compared to only 1-2% in 2008/9. Ireland experienced a rise in MenW and MenY cases from the year 2015. Prior to 2015 there was an average of 2 cases of MenW and MenY disease per year, but this increased to an annual average of 9 cases of MenW and 5 cases of MenY disease between 2015 and 2018.

This rapid rise in MenW cases is due to a particularly virulent (harmful) strain of bacteria which is causing severe disease in previously healthy people and has a high death rate. The strain (ST-11) was identified using the MRF Meningococcal Genome Library to be a particular strain responsible for

causing high disease rates and very high fatality rates in South America. Vaccinating teenagers against MenACWY will protect them and stop the spread of this virulent strain. Read more about the rise in cases of MenW at <https://www.meningitis.org/meningitis/what-is-meningitis/bacterial-meningitis/meningococcal-group-w-%28menw%29>

### Importance of maintaining protection against MenC (meningococcal C meningitis and septicaemia)

Since routine introduction of the MenC vaccine, MenC has been nearly eliminated in the UK and Ireland. The vaccine has prevented thousands of cases. The reason for this success was not just because the vaccine directly protected babies from disease, but because it was introduced with a one-off catch up campaign, which extended to teenagers and young adults, preventing people in this age group from carrying the bacteria in their throats and transmitting it to others.

However, research has shown that the direct protection young children get from MenC vaccination is relatively short lived<sup>1-3</sup>. Therefore teenagers who were vaccinated as babies will no longer be directly protected. Boosting teenagers with MenACWY, will renew their protection, which is important as they are entering a higher risk age group for this disease. It also keeps disease levels amongst the population at low levels by stopping the spread of bacteria.

### **Who is entitled to receive the vaccine in the UK and where should they go to get it?**

#### Teenagers and young adults

MenACWY vaccine has been offered to teenagers in school year 9 (England and Wales), year 11 (Northern Ireland) and S3 (Scotland) since 2015. A catch up campaign targeting older age groups was also initiated, but uptake of the vaccine in older teenagers and young adults has been low.

If you are over 14 and did not get this vaccine at school or from your GP you can still get the vaccine if:

- You are starting university for the first time and aged under 25
- You were born after 1st September 1996 (England and Wales) or born after 2 July 1996 (Northern Ireland)
- You are in Scottish School year S3 to S6

Check your eligibility and find out where to get the vaccine at:

<https://www.meningitis.org/action/one-life-one-shot>

#### University freshers in England, Wales and Northern Ireland

Because MenC and MenW can spread rapidly in halls of residence, new starters at university up to age 25 are also being offered a catch-up MenACWY vaccination before they enrol on their course. Ideally first year students should arrange to get MenACWY from their GP at least 2 weeks before they go away to study to make sure that they are protected by the time they get to university. Any first-year students not immunised before they started should get the vaccine as soon as possible by registering with their university health centre or other GP practice.

### **Who is entitled to receive the vaccine in Ireland and where should they go to get it?**

First year secondary school students in Ireland will be offered the vaccine. HSE school vaccination teams will visit the school and administer the MenACWY vaccine alongside the second dose of HPV vaccine from March of the academic year. Age equivalent home schooled students will also be eligible for vaccination and can be vaccinated at HSE clinics.

There is no catch up programme for older teenagers in Ireland.

### **I am from the UK and am attending university but I'm not a fresher. Am I eligible?**

Your eligibility for the vaccine will depend on your date of birth and where you live. Use our online eligibility checker <http://www.meningitis.org/eligibility-checker> to see if you are entitled to the vaccine.

### **University freshers in Scotland**

Scotland are not running a Universities Freshers programme. Due to the success of their MenACWY programme offered to all 14-18 year olds during 2015/16, the majority of Scottish entrants to university will have already been vaccinated, therefore there isn't a need for a specific freshers programme this year. Unvaccinated students coming from other parts of the UK to study in Scotland should ensure they get vaccinated before they travel to Scotland as there is no guarantee the MenACWY vaccine will be available at Scottish university health centres and GP practices.

### **Problems accessing MenACWY vaccine in the UK?**

We have been contacted by students and other young people who have had difficulty getting the MenACWY vaccine from their GP even though they were eligible for the vaccine.

Protecting yourself through vaccination is important, so don't be put off.

If you think you are eligible for the vaccine but are experiencing difficulties in accessing it, visit <http://www.meningitis.org/uk-menacwy> for detailed instructions on what to do, or call our Freephone helpline on 080 88 00 33 44 for assistance.

### **Who else is eligible for the vaccine free on the NHS in the UK?**

People with asplenia or splenic dysfunction, those with complement disorders, or those on Eculizumab therapy are at increased risk of meningococcal disease. They are entitled to receive the MenACWY and other meningitis vaccines free of charge on the NHS whatever their age<sup>4</sup> and anyone with any of these medical conditions should contact their GP to ask about vaccination.

### **Who else is eligible for the vaccine free on the HSE Immunisation schedule in Ireland?**

People with Asplenia or hyposplenia (including haemoglobinopathies and coeliac disease), defects in or deficiency of complement components, including factor H, factor D and properdin, Haematopoietic Stem Cell Transplant recipients, those who are HIV positive, and those with immunodeficiency due to disease or treatment, particularly Eculizumab (Soliris) are all entitled to the MenACWY vaccine and other meningitis vaccines free of charge.

### **What vaccine will be provided?**

There are two MenACWY vaccines currently licensed in the UK, Menveo<sup>®</sup> and Nimenrix<sup>®</sup>. Both vaccines have been widely used for several years: Menveo<sup>®</sup> since 2010 and Nimenrix<sup>®</sup> since 2012. Nimenrix<sup>®</sup> is currently used to routinely immunise young people in the UK and Ireland.

### **Are the vaccines safe?**

Both vaccines have a good safety profile. As with all drugs, vaccines can cause side effects. Side effects of MenACWY vaccines are similar to other routine vaccines and may include soreness/redness/swelling or hardness of skin at the injection site, fever, headache, nausea, muscle aches, tiredness/fatigue, loss of appetite, generally feeling unwell.

The vaccines have been used extensively in the UK and around the world amongst pilgrims attending Hajj to combat meningitis outbreaks that have occurred among Hajj pilgrims in the past. MenACWY vaccine is compulsory for people attending Hajj, and since 2010, there have been 2-3 million Hajj pilgrims each year worldwide. The vaccines have also been used amongst people at higher risk of the infections as a result of medical conditions and Menveo® has been used as part of the routine immunisation programme in Chile and some parts of the US to routinely immunise teenagers.

### **Is it a risk to other people once someone has had the vaccine?**

No, quite the contrary. Vaccinating adolescents not only protects them, but reduces their risk of acquiring the bacteria, which commonly live in the nose and throat. By getting vaccinated, adolescents are also protecting younger and older people who are vulnerable to the infections.

### **What are the ingredients in the vaccine?**

Each different group (A,C,W and Y) of meningococcal bacteria has a different type of sugar capsule surrounding the bug. The MenACWY vaccines contain fragments of the sugar capsules of all four groups. The sugar fragments are linked to a protein which makes the vaccine stronger and longer lasting.

All of the vaccine components have been processed and inactivated and are not part of any living bacteria, but can still stimulate the immune system.

Once you are vaccinated with MenACWY, your immune system can recognise and kill bacteria with the same sugar capsule that is contained in the vaccine, so if you are exposed to these types of bacteria you do not become ill.

Other ingredients in the vaccines are used to ensure it has the same level of acidity and salt concentration as your body.

In Menveo® the other ingredients include<sup>5</sup>:

- Sucrose
- Potassium dihydrogen phosphate
- Sodium dihydrogen phosphate monohydrate
- Disodium phosphate dihydrate
- Sodium chloride
- Water for injections

In Nimenrix® the other ingredients include<sup>6</sup>:

- Sucrose
- Trometamol
- Sodium chloride
- Water for injections

### **Are there any safety reasons not to have the vaccine? What about allergies?**

People who have previously had an anaphylactic reaction to any of the vaccine components listed above should not get the vaccine.

Anaphylaxis to current vaccines is very rare and is estimated to occur in one in a million doses given, although a recent study<sup>7</sup> found no reports of anaphylaxis following more than 5 million preschool and infant immunisations over an entire year in the UK and Ireland.

People with severe immune system problems cannot have live vaccines, but the MenACWY vaccines are not live. Food allergies are not a reason to avoid vaccination. People often worry that eczema, asthma, epilepsy and a family history of reactions to vaccinations are a reason to avoid vaccinations, but this is not true<sup>8</sup>.

The packaging on both vaccines may contain natural rubber latex. The risk of developing an allergic reaction is very small, but in case of known severe latex allergy, you should speak to your doctor or nurse before being vaccinated.

**Is there a separate MenW vaccine like MenC?**

No. There is currently no licensed vaccine that just protects against MenW.

**Is it safe (or necessary) for people who have had meningococcal disease?**

Yes. The vaccine is safe for people who have previously had meningococcal disease, and the vaccine cannot give them the disease. There are very few safety reasons for not vaccinating and these are outlined above.

There are many different types of meningococcal disease. Although someone who has been ill in the past may have some immunity against the strain that caused disease, they would not be protected against other types. Vaccination is necessary for broader protection and to boost any existing immunity generated from a previous infection.

**Is it safe if you are pregnant?**

Yes. Meningococcal vaccines may be given to pregnant women. There is no evidence of risk from vaccinating pregnant women or those who are breast-feeding.

**Will this vaccine be offered to babies free of charge within the health service?**

There is no current recommendation for babies to be vaccinated with MenACWY.

The MenB vaccine Bexsero, which is given to children at 2, 4 and 12 months in the UK and Ireland, should provide some protection against this particular ST-11 MenW strain that is causing severe disease<sup>9</sup>.

Adolescents are more likely to carry meningococcal bacteria than any other age group and offering MenACWY vaccine to all of them should stop the bacteria from being passed on. This means that even unvaccinated people including babies should eventually also be indirectly protected from catching the disease – an effect known as population protection (or herd protection).

**What about those who are too young/old to qualify for the MenACWY vaccine on the NHS and HSE. Should they get the vaccine privately?**

Babies are at the highest risk of contracting meningococcal disease with peak incidence at around 5 months of age. All babies are now immunised with the MenB vaccine Bexsero which should provide some protection against this virulent ST-11 MenW strain<sup>9</sup>.

Children older than 5 months of age are still at risk of disease, but their risk is substantially lower than that of younger babies. UK incidence of meningococcal disease amongst the under 1s in 2017 was 16 per 100,000 (or 1 baby in 6,250) and in Ireland 24.1 per 100,000 (one baby in 4,150), reducing to 4 per 100,000 for children aged 1-4 (1 child in about 25,000) in the UK and 5.6 per 100,000 in Ireland (1 child in 17,850). The incidence of disease amongst people older than age 5 in the UK and Ireland is substantially less.

Vaccinating adolescents should stop the bacteria from being passed on which means that even unvaccinated people should be indirectly protected from catching the disease.

However, meningococcal disease is such a deadly and disabling disease that some may wish to be protected however small the risk of them contracting disease. The vaccine is available privately for those who wish purchase it.

### **How can I get the vaccine for my child if s/he is not eligible for it free of charge within the health service?**

Separate stocks of the vaccine are available privately for travellers, and it is usually possible to pay for MenACWY vaccination at pharmacies and travel clinics.

### **How much will the vaccine cost if I want to get it privately?**

As a guideline, the purchase price of the MenACWY vaccines for vaccine providers is £30 per dose in the UK and €42 per dose in Ireland excluding VAT. A fee is also charged for administering the vaccine and this can be different according to clinic, so overall prices vary

### **Once my teenager has had their MenACWY vaccine, can they still get meningitis?**

Unfortunately yes, although it is much less likely. Meningitis vaccines are excellent, but they do not protect against all strains. For example MenB has been the most common kind of meningitis for decades. A new MenB vaccine has recently been recommended for routine use in babies the UK which should prevent many more cases of meningitis ([see www.meningitis.org/MenB](http://www.meningitis.org/MenB)). However, there is currently no recommendation for this vaccine to be offered to teenagers and there are still some kinds of meningitis that cannot be prevented, so it is important to know the symptoms. [Visit our symptoms page.](#)

### **Where can I go for further information and support?**

**Freefone** helpline 080 88 00 33 44

email [helpline@meningitis.org](mailto:helpline@meningitis.org)

Visit our website [www.meningitis.org](http://www.meningitis.org)

*If using any information from this document in external communications, please credit Meningitis Research Foundation and quote our URL [www.meningitis.org](http://www.meningitis.org).*

### **References**

1. Snape, M.D. and A.J. Pollard, *Meningococcal polysaccharide-protein conjugate vaccines*. *Lancet Infect Dis*, 2005. **5**(1): p. 21-30.
2. Khatami, A., M.D. Snape, T. John, S. Westcar, C. Klinger, L. Rollinson, D. Boutriau, N. Mesaros, J. Wysocki, A. Galaj, L.M. Yu, and A.J. Pollard, *Persistence of immunity following a booster dose of Haemophilus influenzae type B-Meningococcal serogroup C glycoconjugate*

- vaccine: follow-up of a randomized controlled trial. *Pediatr Infect Dis J*, 2011. **30**(3): p. 197-202.
3. Ishola, D.A., Jr., R. Borrow, H. Findlow, J. Findlow, C. Trotter, and M.E. Ramsay, *Prevalence of serum bactericidal antibody to serogroup C Neisseria meningitidis in England a decade after vaccine introduction*. *Clin Vaccine Immunol*, 2012. **19**(8): p. 1126-30.
  4. Department of Health. *Meningococcal: the green book, chapter 22*. [cited 2016 February]; Available from: <https://www.gov.uk/government/publications/meningococcal-the-green-book-chapter-22>
  5. GSK. Menveo. Summary of product Characteristics. Cited February 2016. Available <https://www.medicines.org.uk/emc/medicine/27347>
  6. Pfizer. Nimenrix. Summary of Product Characteristics. Cited February 2016. Available from <https://www.medicines.org.uk/emc/medicine/26514>
  7. Erlewyn-Lajeunesse M, Hunt L.P, Heath P.T, Finn A, Anaphylaxis as an adverse event following immunisation in the UK and Ireland. *Arch Dis Child*, 2012. 97:487-90.
  8. Department of Health. *Contraindications and special considerations:the green book, chapter 6*. 2013 [cited 2013 November ]; Available from: <https://www.gov.uk/government/publications/contraindications-and-special-considerations-the-green-book-chapter-6>.
  9. Ladhani S.N, Giuliana M.M, Biolchi A, Pizza M, Beebeejaun K, Lucidarme J, Findlow J, Ramsay M.E, Borrow, R, Effectiveness of meningococcal B vaccine against endemic hypervirulent *Neisseria meningitidis* W strain, England. *Emerg infect Dis*. 2016 Feb;22(2):309-11. doi: 10.3201/eid2202.150369.
  10. Public Health England. *Invasive meningococcal disease in England: annual laboratory confirmed reports for epidemiological year 2017 to 2018*. 2018 [cited 2019 September]; Available from: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/751821/hpr3818\\_IMD.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/751821/hpr3818_IMD.pdf).
  11. HSE Health Protection Surveillance Centre. *Annual Epidemiological Report, Invasive Meningococcal Disease, in Ireland, 2017*. 2018 [cited 2019 September]; Available from: <https://www.hpsc.ie/a-z/vaccinepreventable/invasivemeningococcaldisease/surveillancereports/Meningo%20Annual%20Summary%202017%20v2.1.pdf>.