

A close-up photograph of a baby's face, looking directly at the camera. The baby is wearing a yellow hat with a white trim and a small brown patch on the side. The baby's hand is near their mouth, with fingers slightly curled. The background is a soft, out-of-focus yellow.

Protecting your baby against meningitis and septicaemia

caused by meningococcal B bacteria

MenB vaccine now available!

**Information about the MenB vaccine
and recommended paracetamol use**

Protecting your baby against MenB disease

There's now a vaccine to help protect against meningococcal group B (MenB) disease. The vaccine is being offered in the routine immunisation programme in the UK.

This leaflet includes information about the new MenB vaccine and the disease that it will help protect against. It also includes information about the use of paracetamol after vaccination.

What is MenB disease?

MenB disease is a serious illness caused by the group B strain of meningococcal bacteria. These bacteria are a major cause of **meningitis** (inflammation of the lining of the brain) and **septicaemia** (blood poisoning) in young children and teenagers.

We fear these diseases because they:

- can come on suddenly
- can progress very quickly
- can kill in hours
- can leave survivors with life-long disabilities.

What is meningitis?

Meningitis is inflammation of the lining of the brain and spinal cord. This causes pressure on the brain resulting in symptoms such as severe headache, stiff neck, dislike of bright light, drowsiness and convulsions/fits. Meningitis can progress very rapidly and can lead to deafness, blindness, epilepsy and mental problems. It can even lead to death.

What is septicaemia?

Septicaemia (blood poisoning) is a serious, life-threatening infection that gets worse very quickly and the risk of death is higher compared with meningitis.

What are the symptoms of meningitis and septicaemia?

The symptoms and signs of meningitis and septicaemia can include:

- refusing feeds, vomiting
- feeling drowsy and not responding to you, or being difficult to wake
- being floppy and having no energy, or being stiff with jerky movements
- being irritable when picked up
- a high-pitched moaning cry
- grunting
- rapid or unusual patterns of breathing
- fever (high temperature)
- cold hands and/or feet

- skin that is pale, blotchy or turning blue
- shivering
- spots or a rash that does not fade under pressure
- convulsions/seizures
- a bulging fontanelle (the soft patch on the top of the baby's head)
- a stiff neck
- disliking bright lights

Symptoms can occur in any order and some may not appear at all – trust your instincts.

Some of the symptoms are very similar to those of flu, so, if you're in any doubt about the health of your baby, trust your instincts and get advice urgently by contacting your doctor or call the NHS on 111.

The typical rash of meningococcal septicaemia does not fade under pressure. You can test for it by pressing the side of a clear glass firmly against the skin – see picture. The rash usually starts as small pinpricks but spreads rapidly to form deep purple blotches. Not all children get this rash so you should not wait for this before seeking help.



How are the meningococcal bacteria spread?

The bacteria live in the throats of about 10% of healthy people without causing any problems at all – in fact, they help build up immunity. The bacteria can spread to other people through close prolonged contact – for example within families – probably by coughing, sneezing or kissing.

How do the meningococcal bacteria cause serious illness?

Sometimes the bacteria in the throat get into the bloodstream and cause septicaemia (blood poisoning). They can also get to the brain and cause swelling which leads to meningitis.

The bacteria can cause septicaemia only, meningitis only, or both at the same time.

How many different strains of meningococcal bacteria are there?

There are many different strains of meningococcal bacteria, but

MenB is responsible for most cases of meningococcal disease in young children and teenagers.

MenC disease is now rare because babies, children and teenagers are routinely vaccinated against MenC in the UK.

How common is MenB disease?

Meningococcal disease occurs in cycles, with between 500 and 1700 children and adults in England developing MenB disease every year. Around half of these cases occur in children under five years of age. MenB disease is the most common cause of bacterial meningitis in children and is extremely serious. If it is not treated quickly, it can cause permanent disability and death. The meningococcal bacteria can also cause local outbreaks in nurseries, schools and universities.

Who is most at risk of getting meningococcal disease?

Meningococcal disease occurs most commonly in infants and young children. This is because

their immune systems aren't yet fully developed to fight off serious infections. Meningococcal disease can occur at any age but, in infants, the number of cases peak at five months of age. This is why the first vaccinations have to be given early, at two and four months of age.

The next most vulnerable group is teenagers and young adults because of increased social mixing at these ages leading to increased spreading of the bacteria. But meningitis and septicaemia can strike at any age, so it's important to know the signs and symptoms listed above.

Can meningococcal disease be treated?

Meningitis and septicaemia caused by meningococcal bacteria or any other bacteria need urgent admission to hospital and rapid treatment with antibiotics. If treatment is started quickly, then it is much less likely to be life-threatening or cause permanent disability.



MenB vaccine

Why is my baby being offered a MenB vaccine?

There's now a vaccine that helps protect babies against MenB disease, which is a major cause of meningitis and septicaemia in infants and young children.

This vaccine is being offered in addition to the MenC vaccine, which has been very successful at protecting children against MenC disease but does not protect against other strains of meningococcal bacteria.

The Men B vaccine should be given with the other routine vaccinations at:

- two months, normally in the left thigh
- four months, normally in the left thigh, and
- 12 months, normally in the left thigh

Vaccinating babies at these times helps protect them when they are most at risk of developing MenB disease.

The MenB vaccine will not protect against other bacteria and viruses that can cause meningitis and septicaemia.

So if you are at all concerned about your baby at any time, then trust your instincts and speak to your GP or call 111.

Is the vaccine safe?

The MenB vaccine (Bexsero®) has been thoroughly tested and meets strict safety criteria. This vaccine has been through ten years of trials in the laboratory and among volunteers. Although the vaccine isn't used routinely anywhere else in the world, over 1,000,000 doses have already been given in more than 19 countries worldwide.

In Canada for example, the vaccine has been given to more than 45,000 children and teenagers aged two months to 20 years and there have been no concerns about the safety of the vaccine.

This means my baby will need to have three or four vaccines in each session. Is that OK?

Yes it is. From birth, babies' immune systems are exposed to the tens of thousands of bacteria and viruses that cover their skin, nose, throat and intestines. This helps to build up their immunity which carries on throughout life.

Studies have shown that the MenB vaccine (Bexsero) can be given at the same time as the other routine vaccines used in the UK. So, although this may mean that your baby will require three injections at two and four months, and four injections at

12-13 months, your baby will be getting protection from all these serious infections as early as possible.



Does the MenB vaccine have any side effects?

Some babies may:

- have a temperature (fever)
- have redness, swelling or tenderness where they had the injection, or
- be a bit irritable and lose their appetite

These normally clear up within one or two days of vaccination.

Why do I need to give my baby paracetamol after the two month and four month vaccinations?

Fever can be expected after any vaccination, but it is more common when the MenB vaccine (Bexsero) is given to babies with the other routine vaccines at two and four months of age. In studies when the vaccines were given to infants without paracetamol, more than half of them developed a temperature. The fever peaks around six hours after vaccination but is nearly always gone within two days.

The fever shows the baby's body is responding to the vaccine, although the level of fever will

depend on the individual child and does not indicate how well the vaccine will protect your baby. Giving paracetamol reduces the chances of getting fever to fewer than one in five babies, and nearly all these fevers are mild (below 39°C). Paracetamol also reduces the risk of irritability and discomfort (such as pain at the injection site) after vaccination.

How much paracetamol should I give my baby?

After each of the two month and four month vaccinations you will need to give your baby a total of three doses of paracetamol to prevent and treat any potential

fever. You should give the first dose at the time of vaccination or as soon as possible after the vaccination visit. Don't give the first dose before your vaccine visit, because your nurse will first need to check that your child doesn't have signs of an existing infection, which can sometimes be a reason to delay your vaccines. You should then give the second and third doses of paracetamol at four to six hourly intervals (see table).

If you do not have any oral paracetamol suspension for infants at home you should get some from your local pharmacy or supermarket in preparation for your two month vaccination visit.

Table. Dosage and timing of infant paracetamol suspension (120mg/5ml) for use after vaccination at two and four months

Age of baby	2 months / 4 months
Dose 1	One 2.5ml dose as soon as possible after vaccination
Dose 2	One 2.5ml dose 4-6 hours after first dose
Dose 3	One 2.5ml dose 4-6 hours after second dose

It's important that your baby has the recommended three doses of paracetamol after each of the first two MenB vaccinations to reduce the chances of fever.

At the time of the two month vaccination visit, your immunisation nurse may offer you a sachet of paracetamol to use as the first dose, if you do not have any at home. You should then get some oral paracetamol suspension for infants from your local pharmacy or supermarket on your way home from the clinic or surgery in order to give your baby the recommended three doses.

You will need to follow the same process when your baby has their routine vaccinations at four months of age.

Is it OK for small babies to have paracetamol?

Paracetamol is approved for managing fever in children from the age of two months. Recently, large clinical studies involving hundreds of infants have shown that giving three doses of paracetamol to two month old infants from the time of their routine vaccinations was safe and significantly reduced the risk of fever after vaccination.

Although paracetamol can be safely used in children from two months of age, the patient

information leaflet that comes with the pack may say that no more than two doses should be given to children aged two to three months without talking to a doctor or pharmacist. This is recommended because fevers in young children can be caused by an infection, and giving too many doses of paracetamol for unexplained fever could cause a delay seeking medical help for diagnosis and treatment of a serious infection.

Recently, however, experts have advised that, after the vaccines given at two months and four months of age it is safe to give paracetamol for up to 48 hours (leaving at least four hours between doses and without giving more than four doses each day). This is because it is much more likely that any mild fever within this time was caused by the vaccine, rather than by an infection, and the paracetamol will make your child feel better.

It is important to remember however that when a two to three month old child develops a fever but has not just received a vaccine, parents should not give more than two doses of paracetamol without talking to a doctor or pharmacist.

What if my baby still has a fever after having had the three doses of paracetamol?

Some babies may still develop fever after vaccination, even after taking paracetamol. If your baby still has a fever after the first three doses of paracetamol but is otherwise well, you can continue giving your baby paracetamol for up to two days after vaccination. You should always leave at least four hours between doses and never give more than four doses in a day. You should also keep your child cool by making sure they don't have too many layers of clothes or blankets on, and giving them plenty of fluids. If you are concerned about your baby at any time then trust your instincts and speak to your GP or call 111.

Paracetamol is recommended for the prevention and treatment of fever after immunisation as there is evidence that it is safe and effective.

If 48 hours after vaccination your baby still has a fever you should speak to your GP or call NHS 111 for advice.

Does my baby need paracetamol with the second set of vaccinations at three months?

Your baby does not need the three doses of paracetamol with the second set of immunisations at three months because the risk of fever is lower when the routine infant vaccinations are given without the MenB vaccine. However, if your baby does get fever at home or appears to be in discomfort, you can give your baby paracetamol at that time.

If your baby is unwell at any time, with or without a fever, then trust your instincts and speak to your GP or call the NHS on 111.



Does my baby need paracetamol with the booster vaccinations at 12 months?

At 12 months, the risk of fever after routine vaccinations with or without the MenB vaccine is similar. So, your baby does not need three doses of paracetamol with their routine 12 month vaccinations. However, if your baby does get fever at home or appears to be in discomfort, you can give your baby paracetamol at that time.

Are there any babies who should not have the vaccination?

The vaccine should not be given to babies who have had:

- a severe allergic (anaphylactic¹) reaction to a previous dose of the vaccine, or
- a severe allergic (anaphylactic¹) reaction to any of the ingredients of the vaccine.

¹ An anaphylactic reaction is an immediate and severe allergic reaction which needs urgent medical attention

What if my baby is ill on the day of the appointment?

If your baby has a minor illness without a fever, such as a cold, the vaccinations can be given as normal. If your baby is ill with a fever, you can put off the immunisation until your baby has recovered. This is to prevent your baby feeling worse than he or she already feels and gives them a chance to recover from their illness.

If your baby has a bleeding disorder (for example, haemophilia, where the blood doesn't clot properly), or you are concerned, speak to your doctor, practice nurse or health visitor before your child has any vaccination.

What if babies miss their MenB vaccinations when they were due?

If your baby misses any of their vaccinations, speak to your doctor or practice nurse to rearrange them as soon as possible.

Where can I get more information?

The following charities provide information, advice and support:

Meningitis Research Foundation

Free helpline 080 8800 3344

www.meningitis.org

Meningitis Now

Freephone Meningitis Helpline 0808 80 10 388

9am to 10pm every day

www.meningitisnow.org

Or go to:

www.nhs.uk/vaccinations



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