MMR The facts

NHS

Health Promotion England
The decision to immunise your child is never simple. Information can often be confusing, made worse by stories in the press and on TV. This leaflet aims to help you by giving you the facts behind the headlines. If you need more information, please talk to your GP, health visitor or practice nurse.

What is MMR?
MMR vaccine protects your child against measles, mumps and rubella (German measles). It is given to children at 13 months and again before they go to school. The second dose protects anybody who did not respond to the first dose. Since 1988 when MMR was introduced in the UK the number of children catching these diseases has fallen to an all-time low.

- Measles can be a serious illness that the vaccine prevents. There are often complications from measles and it can still kill.
- Mumps vaccine prevents mumps, which was the biggest cause of viral meningitis in children.
- Rubella vaccine prevents babies being badly damaged if their mother catches rubella when pregnant.

MMR can prevent these diseases in a combined injection.

What are the side effects of MMR?
MMR contains three separate vaccines in one injection. The vaccines have different side effects at different times. About a week to 10 days after the MMR some children become feverish and they may develop a measles-like rash and go off their food. This is because the measles part of the vaccine is starting to work. In the six weeks after MMR your child may, very rarely, get a rash of small bruise-like spots which may be caused by the measles or rubella parts of the immunisation. This usually gets better on its own, but if you see spots like this, show them to your doctor. About three to four weeks after the injection a child might occasionally get a mild form of mumps as the mumps part of MMR kicks in.

Very rarely, children can have severe allergic reactions straight after any immunisation (about 1 in 100,000 immunisations for MMR). If the child is treated quickly, he or she will recover fully. People giving immunisations are trained to deal with allergic reactions.

The table below compares the serious effects of the disease and reactions to MMR.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Children affected after the natural disease</th>
<th>Children affected after the first dose of MMR</th>
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<tbody>
<tr>
<td>Convulsions</td>
<td>1 in 200</td>
<td>1 in 1000</td>
</tr>
<tr>
<td>Meningitis or encephalitis</td>
<td>1 in 200 to 1 in 5000</td>
<td>Less than 1 in a million</td>
</tr>
<tr>
<td>Conditions affecting blood clotting</td>
<td>1 in 3000 (rubella)</td>
<td>1 in 22,300</td>
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<tr>
<td>SSP (a delayed complication of measles that causes brain damage and death)</td>
<td>1 in 8000 (children under 2)</td>
<td>0</td>
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<tr>
<td>Deaths</td>
<td>1 in 2500 to 1 in 5000 (depending on age)</td>
<td>0</td>
</tr>
</tbody>
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What about reports of links between autism and MMR? Is this really a risk?
No, autism was well known long before MMR was ever used in this country. Autism, a disorder causing behavioural and language problems, is recognised more often now than in the past and the increases in the cases of autism were going on before MMR was introduced. There was no sudden increase in autism when MMR was introduced. Parents often first notice the signs of autism around the time MMR is usually given. This does not mean that one causes the other.

Extensive research into this possibility shows that there is no link between MMR and autism. These research studies have been carried out in this country, the USA, Sweden and Finland, and involve thousands of children. Experts from around the world, including the World Health Organisation, have agreed that there is no link between MMR and autism.

What about reports of links between MMR and bowel disease?
It has been suggested that measles viruses, either from the natural disease or the vaccine, might stay in the bowel and cause bowel disease. But bowel disease is no more common in immunised people than in people who have not been immunised. Again, there have been many studies that cannot find a link with the vaccine. Experts from around the world, including the World Health Organisation, also came to the conclusion that the evidence is firmly against any link between measles and MMR vaccines and bowel disease.

Have children been followed up long enough after MMR to know it's safe?
In the USA, MMR has been given for nearly 30 years. Worldwide over 500 million doses have been used in over 90 countries and the vaccine has an excellent safety profile. In Finland where children have been given up to two doses of MMR since 1982, reactions reported after MMR were followed up. Researchers found no deaths or permanent damage linked to the vaccine. The World Health Organisation describes MMR as a 'highly effective vaccine which has such an outstanding safety record'.

Wouldn't it be better for children to have the vaccines separately?
No, giving the vaccines separately would leave children exposed to measles or mumps or rubella for longer. These can be serious or even fatal diseases. It has been said that giving the three vaccines together overloads children's immune systems. This is not the case. Children's immune systems make excellent responses, naturally protecting them against these diseases. No country in the world recommends MMR be given as three separate vaccines. The World Health Organisation advises against using separate vaccines because they would leave children at risk for no benefit.
MMR – the facts

- MMR vaccine protects children against measles, mumps and rubella.
- In nearly 30 years, over 500 million doses of MMR have been given in over 90 countries. It has an excellent safety record.
- The evidence is against any link between MMR and autism or bowel disease.
- The practice of giving the vaccines separately may be harmful. It leaves children open to the risk of catching measles, mumps or rubella.
- Where MMR is available, no countries recommend giving the vaccines separately.
- Measles is a highly infectious disease and it kills and disables children and adults.
- In the year before MMR was introduced in England, 86,000 children caught measles and 16 died. A recent outbreak in Dublin, caused by parents not having their children vaccinated, left two children dead.
- Mumps was the leading cause of viral meningitis in children before the MMR vaccine was introduced. Now it is virtually eliminated.
- The damage rubella can do to unborn babies is devastating – in many cases pregnant women catch rubella from their own or their friends’ children.
- MMR protects your child and your family against measles, mumps and rubella. Because of MMR these three diseases are no longer risks. If children go unprotected, the diseases will come back.

If you missed your MMR appointment, you can get the immunisation at any time.

A personal message from the Chief Medical Officer

“No parent of a young child can have missed the worrying headlines about MMR over the past few years. I have no doubt that MMR is the safest way for parents to protect their children. I understand how difficult it can be for parents to get the facts they need to make a positive decision. We have produced this leaflet to pull together clear, scientifically sound facts and advice on MMR. The leaflet draws on the latest studies both here and around the world. And, as you will see, these studies have found that MMR is not linked with autism or bowel disease.

“Having seen the evidence, I hope you feel able to make the best decision – to protect your child with MMR.”

Professor Liam Donaldson
Chief Medical Officer for England

- Evidence from around the world is against any link between MMR and autism or bowel disease.
- MMR protects children from three illnesses that can be very serious. It may even be harmful to give the vaccines separately.
- You can get more information from your GP, health visitor or practice nurse. Please do not hesitate to ask.
- Visit www.immunisation.org.uk

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