MMR The facts
The decision to immunise your child is never simple and you want the facts to help you make that decision. This leaflet provides you with the facts. If you need more information, please talk to your GP, health visitor or practice nurse or contact NHS Direct on 0845 46 47, or visit www.immunisation.org.uk.

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 start 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.

- 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.

- 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. However, if you see spots like this, show them to your doctor.

- 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 risk of serious side effects from the actual disease far outweighs the risk of your child suffering any of the side effects from the immunisation.
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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>
</tr>
</thead>
<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) 1 in 6000 (measles)</td>
<td>1 in 22,300</td>
</tr>
<tr>
<td>SSPE (a delayed complication of measles that causes brain damage and death)</td>
<td>1 in 8000 (children under 2)</td>
<td>0</td>
</tr>
<tr>
<td>Deaths</td>
<td>1 in 2500 to 1 in 5000 (depending on age)</td>
<td>0</td>
</tr>
</tbody>
</table>

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”.

Why not give parents choice and let them have single vaccines?
Some people feel that single vaccines might somehow be safer than MMR. But using single vaccines would mean that:
- six separate injections have to be given over a long period of time;
- there would be a fall in vaccine coverage as experience shows more children would not complete the course of injections;