

# Patient information from BMJ

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## Rotavirus vaccine

The rotavirus vaccine is given to young babies to protect against dangerous stomach bugs. This leaflet explains how and when the vaccine is given, how well it works, and how safe it is.

### What is rotavirus?

As the name suggests, rotavirus is a virus. It can cause severe stomach upsets that can sometimes be fatal, usually because of severe dehydration. The symptoms include:

- diarrhoea
- vomiting
- fever, and
- stomach ache.

Most children recover from rotavirus infections with simple treatment. But some children need treatment in hospital for problems including severe dehydration.

Successful vaccinations in developed countries have hugely reduced the levels of serious illness and death from rotavirus. But each year about 2 million children still die of rotavirus, mostly in developing countries.

As well as vaccination, **good hygiene** measures such as hand washing can help prevent stomach bugs in children.

It's also recommended that babies should be breastfed for the first six months of life, if possible. **Breastfeeding** helps prevent infection with rotavirus and other stomach bugs.

### Who needs the rotavirus vaccine?

People are usually given the vaccine as young babies, in several doses, for maximum protection.

Vaccination schedules can vary between countries. For example, in the UK, the rotavirus vaccine is given in **two doses**.

- The first dose is given when the baby is about **eight weeks old**.

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- The second dose is given at **12 weeks old**.

If your baby misses a dose of this vaccine, talk to your doctor as soon as possible to arrange another appointment. Note that:

- the first dose needs to be given before your baby is 15 weeks old, and
- the second dose needs to be given before your baby is 24 weeks old.

The vaccination is not offered to older babies and children because:

- older babies and children have often already had a rotavirus infection, so vaccination would be pointless, and
- there is a very small chance that the vaccine can cause a blocked intestine in older children.

### Are there some babies who shouldn't have the vaccine?

Your baby should not have the vaccine if:

- he or she has a fever, or is very ill with diarrhoea and vomiting. You can talk to your doctor about making another appointment once your baby has recovered
- he or she is allergic to any of the ingredients of the vaccine, or has had an allergic reaction to a previous dose of the vaccine. Tell your doctor about any allergies that your baby has before he or she is vaccinated. Note: the vaccine does **not** contain eggs
- the baby's mother was taking **immunosuppressant** medications during pregnancy or while breastfeeding. You can talk to your doctor if you are unsure about any medications that you take.

### Is it safe?

The vaccine has been used for many years, so there is plenty of evidence that it's safe. But, like all vaccines, it can cause some side effects, including:

- being restless and irritable, and
- mild diarrhoea a day or two after the vaccine.

Very rarely, the vaccine can cause an allergic reaction. But the medical staff giving the vaccine will have been trained to deal with this.

Another very rare side effect of the vaccine is a blockage in the intestine, called **intussusception**.

If you think your baby might be showing signs of intussusception, call your doctor straight away. Symptoms on intussusception include:

- stomach pain. Your baby obviously can't tell you that they have stomach pain. But they might pull their legs up to their chest, which is a sign of stomach pain
- severe crying
- vomiting

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- blood in their stools, and
- seeming weak or irritable.

### Changing your baby's nappy after the vaccine

You should take special care over hygiene when changing your baby's nappy for about two weeks after he or she has the vaccine.

The vaccine contains a weakened version of the virus, which might be harmful if it is spread to someone with a weakened immune system, such as someone having cancer treatment.

### Breastfeeding

It is fine to breastfeed your baby after he or she has the rotavirus vaccine.

### How is the vaccination given?

Unlike most vaccines, which are given as injections, the rotavirus vaccine is given as a liquid into your baby's mouth.

Some babies spit out the vaccine. But it's fine for them to be given another dose, even if they have swallowed some of the first dose.

### How well does the vaccine work?

Evidence suggests that the vaccine works well, and that two doses give protection for several years.

Vaccinated children can still be infected with rotavirus. But if they become ill their symptoms will be less severe.

The rotavirus vaccine doesn't protect against stomach bugs other than rotavirus

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