

# What are vaccine side effects?

Anyone who has vaccinated their child knows about side effects – the child cries, maybe gets a rash or a fever, and definitely is miserable for a few hours or even a few days. These side effects worry parents and are a major reason why some families either do not vaccinate their children or do not return for additional vaccines or boosters.

As frightening as side effects can be, however, the transmission of a vaccine-preventable illness is a much greater risk to a child's health. Try using this fact sheet to counsel parents on what side effects to expect, and why to vaccinate their child regardless of the child's temporary distress.

## Why do vaccines have side effects?

Like any medicine, a vaccine can cause side effects. When a foreign substance enters the body, the body naturally has a reaction to it. Most vaccine side effects are mild, however, and go away within a few days. They usually are no reason to be concerned.

In some cases, a vaccine can cause an allergic reaction or a severe reaction. Please seek medical assistance if you notice any of the following:

- High fever
- Weakness, dizziness, or fast heartbeat
- Hives or paleness
- Wheezing, hoarseness, or difficulty breathing
- Behaviour change

## What side effects should I expect?

The table ([source: CDC 2015](#)) on the next page describes the potential side effects for each common vaccine.

## For more information

- [Myths and facts about vaccination \(WHO\)](#)
- [Centers for Disease Control Vaccine Information Statements](#)
- [Drug information](#)

VACCINE	SIDE EFFECT		
	Mild (common)	Moderate (uncommon)	Severe (very rare)
<b>BCG</b>	<ul style="list-style-type: none"> <li>Soreness, tenderness, itching where shot given</li> <li>Formation of pustule where shot given (can last up to 3 months after shot)</li> </ul>	<ul style="list-style-type: none"> <li>Ulceration of pustule</li> </ul>	
<b>DTaP (diphtheria, tetanus, and pertussis)</b>	<ul style="list-style-type: none"> <li>Fever (1 child in 4)</li> <li>Redness/swelling where shot given (1 child in 4)</li> <li>Soreness where shot given (1 child in 4)</li> <li>Fussiness (1 child in 3)</li> <li>Tiredness or poor appetite (1 child in 10)</li> <li>Vomiting (1 child in 50)</li> </ul>	<ul style="list-style-type: none"> <li>Seizure (jerking or staring) (1 child out of 14,000)</li> <li>Non-stop crying, for 3 hours or more (1 child out of 1,000)</li> <li>High fever, 40C or higher (1 child out of 16,000)</li> </ul>	<ul style="list-style-type: none"> <li>Long-term seizures, coma, or lowered consciousness (less than 1 out of a million)</li> <li>Permanent brain damage (less than 1 out of a million)</li> </ul>
<b>Hepatitis A</b>	<ul style="list-style-type: none"> <li>Soreness where shot given (1 child out of 6)</li> <li>Headache (1 child out of 25)</li> <li>Loss of appetite (1 child out of 12)</li> </ul>		<ul style="list-style-type: none"> <li>Serious allergic reaction (extremely rare)</li> </ul>
<b>Hepatitis B</b>	<ul style="list-style-type: none"> <li>Soreness where shot given (1 child out of 6)</li> <li>Headache (1 child out of 25)</li> <li>Loss of appetite (1 child out of 12)</li> </ul>		<ul style="list-style-type: none"> <li>Serious allergic reaction (extremely rare)</li> </ul>
<b>MMR (measles, mumps, and rubella)</b>	<ul style="list-style-type: none"> <li>Fever (1 child out of 6)</li> <li>Mild rash (1 child out of 20)</li> <li>Swelling of glands in the cheeks or neck (1 child out of 75)</li> </ul>	<ul style="list-style-type: none"> <li>Seizure (jerking or staring) (1 child out of 3,000)</li> <li>Temporary pain and stiffness in the joints, mostly in teenage or adult women (1 person out of 4)</li> <li>Temporary low platelet count, which can cause a bleeding disorder (1 child out of 30,000)</li> </ul>	<ul style="list-style-type: none"> <li>Serious allergic reaction (less than 1 out of a million)</li> </ul>
<b>Meningococcal</b>	<ul style="list-style-type: none"> <li>Redness/pain where shot given (1 child out of 2)</li> </ul>	<ul style="list-style-type: none"> <li>Fever (rare)</li> </ul>	<ul style="list-style-type: none"> <li>Allergic reaction (very rare)</li> </ul>
<b>Polio (IPV)</b>	<ul style="list-style-type: none"> <li>Soreness where shot given (uncommon)</li> </ul>		
<b>Rabies</b>	<ul style="list-style-type: none"> <li>Soreness, redness, swelling, or itching where the shot was given (1 child in 3)</li> <li>Headache, nausea, abdominal pain, muscle aches, dizziness (1 child in 3)</li> </ul>	<ul style="list-style-type: none"> <li>Hives, pain in the joints, fever (6 children out of 100)</li> </ul>	
<b>Rotavirus</b>	<ul style="list-style-type: none"> <li>Irritability (uncommon)</li> <li>Mild, temporary diarrhea or vomiting (uncommon)</li> </ul>		
<b>Yellow fever</b>	<ul style="list-style-type: none"> <li>Fever and aches (1 child out of 4)</li> <li>Soreness, redness or swelling where the shot was given (1 child out of 4)</li> </ul>		<ul style="list-style-type: none"> <li>Severe allergic reaction (1 person in 55,000)</li> <li>Severe nervous system reaction (1 person in 125,000)</li> </ul>