

Immunization (Shot/Vaccine) Reactions

--from Children's Physician Network's *Pediatric Advisor*

Reactions to vaccines are common and almost always harmless. Severe allergic (anaphylactic) reactions to any vaccine are possible, but they are extremely rare or have never been reported. Listed below are the symptoms for a severe allergic reaction as well as common reactions to specific vaccines.

What should I do if my child has a severe allergic reaction?

A severe reaction is very rare. If it does happen, it is almost always within minutes after the immunization. Seek help immediately or call 911 if you notice the following severe allergic reactions:

- trouble breathing
- weakness
- wheezing
- fast heartbeat
- hives
- dizziness
- paleness
- swelling of the throat.

What are the possible reactions to the different vaccines?

The percentage listed next to each reaction shows the percentage of children who have this reaction.

Diphtheria-Tetanus-Pertussis (DTaP)

- Pain, tenderness, swelling, or redness at the injection site for 24 to 48 hours (25% to 45%). Give your child ibuprofen or acetaminophen and place a cold, wet washcloth over the tender area.
- Fever for 24 to 48 hours (7% to 26%). Give your child ibuprofen or acetaminophen if the fever is over 102°F (38.9°C). The next time your child gets a DTaP shot, give your child acetaminophen at your healthcare provider's office and continue the medicine every 4 to 6 hours for 24 hours.
- Mild drowsiness (15%), poor appetite (10% to 15%) for 24 to 48 hours, or prolonged crying (more than 3 hours) (4%).
- A large swelling (over 4 inches) of the arm or leg can follow the 4th or 5th dose of DTaP. This occurs in 5% of children. Most children can still move the leg or arm normally. The swelling resolves without treatment by day 3 to day 7. This is not an allergy and future DTaP vaccines can be given.
- Painless lump at the injection site 1 or 2 weeks later. The lump is harmless and will disappear in about 2 months. Call your provider within 24 hours if it turns red or is tender.

CALL YOUR PROVIDER IMMEDIATELY IF the following rare but serious reactions occur:

- fever over 104°F, or 40.0°C (0.4%)
- crying for more than 3 hours (1%)
- high-pitched, unusual cry (0.1%)
- seizures (very rare)

- fainting, clammy skin, dizziness, and weak or irregular pulse (very rare)
- any other unusual reaction.

Measles, Mumps, Rubella (MMR)

These reactions may begin 5 to 12 days after getting the vaccine:

- Fever of 103°F (39.5°C) or more (10%). Give your child ibuprofen or acetaminophen if the fever is over 102°F (38.9°C). Call your provider within 24 hours if the fever lasts over 72 hours or is over 104°F (40°C).
- A mild pink rash mainly on the body (5%) may occur 1 to 6 weeks after getting the MMR. No treatment is necessary. The rash will last 2 to 3 days. Call your provider immediately if the rash changes to purple spots. Call within 24 hours if the rash becomes itchy or the rash lasts more than 3 days.
- Three to four weeks after the MMR, about 1 child in 7 may get swollen lymph glands, and 1 child in 100 may have pain or stiffness in the joints that can last from a few days to a few weeks.
- In 1 in 30,000 to 1 in 40,000 cases, low blood platelet counts can lead to bruising and bleeding into the skin. The risk of this happening from the wild-type measles disease is much greater than the risk from the vaccine.

Polio Vaccine (IPV)

- Sore injection site (rare). No treatment is necessary. Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.
- Fever (1% to 4%). Give your child ibuprofen or acetaminophen if the fever is over 102°F (38.9°C).

Pneumococcal Conjugate Vaccine (PCV)

- Fever, usually, mild (10%). Give your child ibuprofen or acetaminophen if the fever is over 102°F (38.9°C).
- Redness, tenderness, or swelling at the shot site (30%). Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.

Haemophilus Influenza Type B Vaccine (HIB)

- Sore injection site (up to 25%) or mild fever (5%). Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.

Hepatitis B Vaccine (Hep B)

- Sore injection site (3% to 29%). Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.
- Fever (up to 7%). Give your child ibuprofen or acetaminophen if the fever is over 102°F (38.9°C).

Chickenpox Vaccine (VAR)

- Never give your child aspirin for any symptom within 6 weeks of receiving the vaccine. (Reye's syndrome has been linked with the use of aspirin to treat fever or pain caused by a virus.) For fever or pain, give ibuprofen or acetaminophen.
- The chickenpox vaccine may cause pain or swelling at the injection site for 1 to 2 days (20%).
- Some children (15%) may have a fever that begins 2 to 4 weeks after the vaccination and lasts 1 to 3 days. Give your child ibuprofen or acetaminophen if the fever is over 102°F (38.9°C).

- A few children (3%) develop a mild rash at the injection site or elsewhere on the body. The rash begins 5 to 26 days after the vaccine, looks like a few (2 to 10) chickenpox sores, and usually lasts a few days.

Children with these rashes can go to day care or school. If the vaccine rash contains fluid, cover it with clothing or a Band-Aid. Avoid school if there are widespread, weepy sores (because this may be real chickenpox).

Hepatitis A Virus (HAV) Vaccine

- Sore injection shot site (20% to 50%). Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.
- Headache or fatigue (less than 10%).

Influenza (Flu) Virus Vaccine (Injection)

- Pain, tenderness, or swelling at the injection site within 6 to 8 hours (10%). Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.
- Fever of 101°F to 103°F, or 38.3°C to 39.5°C (18%). Fevers mainly occur in young children. Give your child acetaminophen or ibuprofen for fever over 102°F (38.9°C).

Influenza (Flu) Virus Vaccine (Intranasal)

Some children who get the nasal spray form of the flu vaccine will have symptoms such as:

- a runny nose, congestion, and cough
- headache or muscle aches
- a stomach ache, and sometimes vomiting or diarrhea
- fever. Give your child acetaminophen or ibuprofen for fever over 102°F (38.9°C).

These symptoms do not last long and go away on their own.

Meningococcal Conjugate Vaccine (MCV)

- Pain, soreness at the vaccination site (60%). Giving your child ibuprofen or acetaminophen and placing a cold, wet washcloth over the tender area may provide some relief.
- Fever (4%) and headache (40%)
- Painful joints (15-20%)
- Decrease in appetite (10%)
- Guillain-Barré syndrome is a very rare but serious side effect. The vaccine never causes meningitis.

Human Papillomavirus Virus Vaccine (HPV)

- Pain at the injection site (85 to 90%)
- Redness and swelling (25 to 45%)

Fainting is very rare after receiving a vaccine. Anyone receiving a vaccine should be observed for 15 minutes after the shot.