
What is penicillin?

Penicillin is an antibiotic used to treat many infections. Antibiotics similar to each other are called a “family” of drugs. In children, the penicillin family of antibiotics is most often used. This includes:

- Amoxicillin or amoxicillin with clavulanate, also called “Augmentin”
- Piperacillin or “Zosyn”
- Oxacillin
- Ampicillin
- Cephalexin or “Keflex”

What is a penicillin allergy?

A true penicillin allergy causes symptoms like:

- Itching
- Rash
- Trouble breathing
- Abdominal (belly) pain

Amoxicillin is the most common medicine allergy in children. A child should not get any medicines in the penicillin family if they are allergic to amoxicillin.

Many children with a penicillin allergy do not have a true allergy when they get tested. This is because they may get a rash from the infection, not the antibiotics used to treat the infection. Caregivers may then believe the child is allergic to the penicillin.

How does it affect treatment?

Penicillin antibiotics are the preferred treatment for many childhood infections, including:

- Ear infections
- Strep throat
- Skin infections

When a child has a penicillin allergy, the doctor will order a different type of antibiotic. The substitute antibiotic may:

- Have more side effects.
- Not treat the infection as well.
- Make the bacteria harder to treat.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.

Testing penicillin allergies, continued

What is an oral ingestion challenge?

An oral ingestion challenge is the best way to test if your child has a true allergy to a food or medicine. The medical team will:

- Give your child the food or medicine (like penicillin) thought to be the allergy.
- Closely watch your child.

What happens during the challenge?

- The medical team will watch your child for symptoms like:
 - Itching
 - Rash
 - Abdominal (belly) pain
 - Trouble breathing
- Your child will get treatment right away if they have symptoms.
- Most often, the medical team will give medicines like cetirizine (Zyrtec) or epinephrine to stop the symptoms from getting worse. It is not common for children to need more treatment than these.

What are the risks?

Risks include symptoms of an allergic reaction. Symptoms most often last up to 2 hours and include:

- Itchy rash
- Stomach pain
- Nausea (feeling like they may throw up)
- Vomiting (throwing up)
- Diarrhea
- Stuffy nose or sneezing
- Wheezing

Major risks include:

- Severe breathing trouble
- Low blood pressure

The risk of death is extremely low when oral ingestion challenges are done with a medical team. The medical team is ready to provide medicines and treatments to treat allergic reactions right away if they happen.

What can I do instead?

Some families choose to avoid the food or medicine (like penicillin) for their child instead of doing an oral ingestion challenge.

This teaching sheet contains general information only. Talk with your child's doctor or a member of your child's healthcare team about specific care of your child.

In case of an urgent concern or emergency, call 911 or go to the nearest emergency department right away.