

## Penicillin Allergy Testing

Patients who are allergic to penicillins are more likely to be prescribed broader second-line antibiotics whose action can eliminate both good and bad bacteria.

Broader antibiotics may also have an increased risk of causing antibiotic associated diarrhea, such as from *Clostridium difficile*. Exposure to these broader second-line antibiotics may increase the risk of developing infections from antibiotics resistant bacteria.

It is important to accurately identify patients who are truly allergic to penicillins to ensure that no patients are unnecessarily given a second-line antibiotic when penicillins are the best treatment choice.

To confirm a penicillin allergy, the following options may be considered **under close monitoring by a health care provider:**

- Skin Test
- Oral Challenge Test

## Penicillin Allergy Testing Options

### Skin Test

This test involves pricking the skin and injecting small amounts of penicillin. There may be some discomfort due to itching but the test is not painful. A positive reaction is indicated by an itchy, red bump at the site of injection, which should resolve within half an hour. A positive test indicates that penicillin should be avoided. A negative test indicates that it is safe to give a trial dose of penicillin

### Oral Challenge Test

This test may be considered if there is a very low suspicion of true penicillin allergy, or if a patient has a negative skin test. For this test, patients are given a single dose of oral antibiotic and monitored closely for 1 hour. If there's no reaction by then, then it is safe to give you penicillin antibiotics.

# Penicillin Allergy Testing



ANTIMICROBIAL STEWARDSHIP  
PROGRAM

© June 2018



## Why Penicillin allergy matters?

Penicillins are a very effective family of antibiotics. When you have a suspected penicillin allergy, we may need to use other types of antibiotics that are less effective or have more side effects.

## What are Penicillins?

Penicillins are a family of antibiotics that are commonly prescribed for bacterial infections. Antibiotics within this family include penicillin, amoxicillin, and others.

Patients that develop an allergic reaction to one of the penicillins may need to avoid other penicillins as well.

## Reactions to Penicillin

When providing information on any reactions with penicillins in the past, it is important to give as much detail as possible.

### Adverse reactions

Adverse reactions are any unintended effects from a medication. **Non-allergic adverse reactions** are more common and include upset stomach and diarrhea. People with **non-allergic adverse reactions** may still be able to use penicillins.

## Penicillin allergy

An allergic reaction occurs when the body overreacts to the presence of penicillins. The symptoms vary based on the severity of the allergy. Allergic reactions may include the following:

### Rashes

There are different types of rashes that could appear when someone is on penicillins:

- Hives – raised itchy bumps that come and go over hours (can occur with allergic symptoms like wheezing or swelling of skin/throat). This suggests a true allergy.
- A blotchy, flat rash that spreads over days and does not change by the hour is less likely to be a dangerous allergy.

### Anaphylaxis

This is a severe, sudden and life-threatening allergic reaction that can occur within minutes of exposure to a medication. Symptoms can include itching and hives all over the body, trouble breathing, swelling of the throat/tongue, low blood pressure, abnormal heart rate, loss of consciousness, diarrhea, vomiting and stomach pain.

## Do I have an allergy to Penicillins?

Patients with a suspected history of anaphylaxis to penicillins should undergo allergy testing if they require therapy with a penicillin.

Serious allergies are not very common, and many people who think they are allergic don't truly have a reaction when they actually take penicillins. The reason for this may be because they never actually had a true allergy, or that the allergy has gone away after many years. Up to 80% of patients lose their penicillin allergy after 10 years.

If your healthcare provider suspects you may have a true penicillin allergy, he or she may recommend that you undergo penicillin allergy testing.

