Avoiding penicillin allergy

The best way to avoid an allergic reaction to penicillin is to avoid penicillin altogether. If you are allergic to penicillin it does not mean you are necessarily allergic to all antibiotics. Your doctor may be able to give you an antibiotic that is distantly related to penicillin without causing any problems. A number of antibiotics completely unrelated to penicillin are also available.

There are various products available on the market that can be used to alert others that you are allergic to penicillin. Ask your pharmacist for more information.

For further information
Ask your doctor, practice nurse or pharmacist
UCLH Medicines Information Helpline
Telephone: 020 3447 3025
NHS Direct
Telephone: 0845 4647
Website: www.nhsdirect.nhs.uk
Medic Alert
Telephone: 0800 581420 or 020 7833 3034

If you would like this information in another format, for example, large print, or audio, or the services of a translator please contact the Infection Control Team on: 0845 155 5000 extension 79716.
Allergic reactions
Antibiotics are medicines used to treat infections caused by bacteria and are one of the most common groups of drugs to which allergies are reported.

Allergic reactions can occur with any antibiotic, but are most commonly reported with penicillins. The reactions can vary from mild to severe.

Types of penicillins
Penicillin belongs to a family of drugs called beta-lactam antibiotics. Several varieties of penicillin exist and each is used to target different infections in various parts of the body.

There are many different types of penicillins available in the UK. Listed below are the names of the penicillins including alternative names or brand names in brackets.

• Phenoxymethylpenicillin (penicillin V)
• Amoxicillin (Amoxil®)
• Ampicillin (Penbritin®)
• Flucloxacillin (Floxapen®)

Some penicillins are combined with other antibiotics to make combination products, such as:

• Co-amoxiclav (amoxicillin plus clavulanic acid; Augmentin®)
• Co-fluampicil (flucloxacillin plus ampicillin; Magnapen®)

Other penicillins are only available as injections and are usually given in hospital. These include:

• Benzylpenicillin (Crystapen®)
• Temocillin (Negaban®)
• Piperacillin plus tazobactam (Tazocin®)
• Ticarcillin plus clavulanic acid (Timentin®)

Always tell your doctor, nurse or pharmacist if you have had an allergic reaction to an antibiotic and remind them of your allergy before you receive any antibiotics.

Serious medication errors have occurred where doctors have prescribed these medicines, often by brand name, for patients with a penicillin allergy without recognising that they contain penicillins.

Some people allergic to penicillin may also be allergic to cephalosporins, a class of antibiotics closely related to penicillin.

Common side effects
Many people who think they are allergic to antibiotics may in fact be experiencing the side effects of the drugs which are in no way related to the allergic reactions. The infection itself can also cause symptoms which will resolve as the infection is cleared.

Common side effects include feeling sick, vomiting, diarrhea and headache. These are usually mild, however if they become severe contact your doctor.

Patients that experience mild side effects may continue to take the related medicines.

How does penicillin allergy develop?
No one is born allergic to penicillin, but you can develop penicillin allergy once you have been exposed to the drug. After that, re-exposure to penicillin or related antibiotics can trigger an allergic reaction.

Penicillin allergy occurs when your immune system responds to the drug as if it were a harmful substance instead of a helpful remedy. Your immune system creates antibodies to attack the medication. Chemicals released by your immune cells can cause the signs and symptoms associated with an allergic reaction.

Signs and symptoms
The most common signs and symptoms of penicillin allergic reactions include rashes, hives, itchy eyes and skin, wheezing and swollen lips, tongue or face (angioedema).

The most serious allergic reaction to penicillin is an anaphylactic reaction which can be life threatening. Such reactions usually occur immediately after exposure to penicillin especially in the highly sensitive people.

Anaphylactic reactions cause the airways to constrict, making breathing very difficult and can also lower blood pressure making the person feel dizzy or faint.

Other signs and symptoms include slurred speech, rapid or weaker pulse rate, blueness of skin, lips and nail beds, diarrhea, nausea and vomiting.

Seek emergency medical care if you think you or someone else is having an anaphylactic reaction.

Treatment of allergic reactions
If you are having an allergic reaction after taking penicillin you should stop taking the medication and contact your doctor for advice.

In most cases penicillin allergy prevention consists of avoiding penicillin and using another antibiotic instead.

Treatment for signs and symptoms depends on what kind of reaction you have.

Anaphylaxis can be lifethreatening and requires an injection of epinephrine (adrenaline) and emergency care to maintain blood pressure and support breathing.

Rashes or hives may improve when treated with an antihistamine such as chlorphenamine (Piriton®). More severe reactions may require treatment with oral or injected steroids.