



Drug Allergy

What is a drug allergy?

A drug allergy occurs when your immune system mistakenly perceives a certain drug as harmful and shifts into overdrive to ‘fight off’ the threat. That abnormal immune response can trigger the release of histamine and other chemicals into the bloodstream, producing an allergic reaction.

What are the symptoms?

Symptoms include redness of the skin, rashes, hives, fever or swelling around the eyes, lips and face. A more severe, multi-system reaction may include a drop in blood pressure, dizziness, fainting, difficulty breathing and nausea; this is called anaphylaxis, and is a serious medical emergency.

Another potentially severe form of skin reaction can include mouth and lip ulcers, skin that blisters and peel off, like a burn victim, or erosion of the skin in the genitals (which is called Steven Johnson syndrome). An allergic attack may also impact organs, like the liver.

I develop swelling around the eyes after taking naproxen and aspirin. Is this a drug allergy?

There is a group of drugs called “NSAIDS”, or aspirin and non-steroidal anti-inflammatory drugs, which are associated with an array of adverse effects ranging from mild stomach pain, swelling and aseptic meningitis, to an actual allergic response. The non-allergic reactions can be very serious, but are not considered an allergy because the immune system is not involved in the reaction itself. It’s important to see a specialist to determine whether you are sensitive or allergic to the drugs in question, in order to understand how to treat and manage future reactions.

What drugs are people most often allergic to?

Antibiotics (such as penicillin, cephalosporin’s, cotrimoxazole), anti-epileptic drugs (such as phenytoin and carbamazepine) and allopurinol are the most common cause of allergic reactions in Singapore.



How is a drug allergy diagnosed?

The most important key to the diagnosis of drug allergy is the patient's story about what occurred after they took the drug. A doctor may not be able to confirm or rule out a drug allergy based on a rash alone; an infection, or viral fever, may also cause a sudden rash.

Drug allergies often occur five to seven days after a patient starts taking the drug. For certain drugs, like anti-epileptic drugs, the onset may occur up to two to three weeks after starting the drug. An allergic reaction seldom occurs after the first dose of the drug unless the patient has received the drug unknowingly in the past, or the patient has taken a potentially cross-reacting drug.

Standardized skin prick test have been created for only a few drugs, including penicillin and insulin. Blood tests for drug-specific IgE levels are not useful because it is difficult to tell whether your immune system is producing the anti-allergy antibodies to the parent drug, or one of its metabolites. A doctor may conduct what's called a 'drug provocation test' in a clinical setting to narrow down the culprit drug in patients who appear to react to multiple drugs. A drug provocation test can also help pinpoint which drugs a patient is allergic to if the culprit drug cannot be confidently identified from the history alone – or help doctors select alternative drugs for patients who have developed a reaction to another potentially cross-reacting drug.

How are drug allergies treated?

For mild allergic reactions, an oral anti-histamine and immediate cessation of the suspected drug are all that is usually needed. Topical steroid creams may not be useful if the rash is extensive.

Patients who suffer from moderate or severe reactions including anaphylaxis, Stevens Johnson syndrome and toxic epidermal necrolysis, where the skin detaches from the body, will need to be hospitalized.

If patients are allergic to drugs they must take and there is no better alternative, doctors may give them small doses of the drug over a few weeks to build up tolerance to the medication. This 'desensitization' procedure may be used in diabetics who are allergic to insulin, for example, or patients with human immunodeficiency virus (HIV) who are allergic to cotrimoxazole.



How can I prevent myself from accidentally being prescribed the same drug that I am allergic to, again?

Write down the name of the drug and keep it with you, in a wallet card, for example, or in your mobile phone. It's a good idea to apply for a Drug Alert (Medic Awas) identity card from the Singapore Medical Association (www.sma.org.sg/services/medi_awas.html). Always show this card to any doctor or pharmacist before you are given a prescription.

About Us

The Asthma and Allergy Association is a community-based organization that aims to increase awareness of allergic diseases in Singapore, and facilitate patient education and empowerment.

We hold a series of public talks and family-oriented events throughout the year, such as the World Asthma Day and our Food Allergy Awareness Day family carnival & seminar, as well as other public education programs. The AAA also administers several funds to help low-income families buy asthma and eczema medications.

To join the AAA, visit our website at www.aaa.org.sg and download a membership form. Membership costs just \$20 a year. Members receive invitations to family activities and free seminars and talks by leading allergy specialists. We can also help you connect with support groups in Singapore.