

Drug Allergy

Allergy and Immunology Awareness Program



Patient and Family Education

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Drug allergy is an overactive immune response to the drug. reactions may be mild or severe, even life-threatening. Any medication is capable of inducing a drug allergy, but it is more likely with certain medications.

Most of us have had trouble with one drug or another. Some drugs can cause an upset stomach or drowsiness. Reactions may be mild or severe, even life-threatening.

Drug reactions put more than 2 million people into the hospital every year. Drugs cause more than 100,000 deaths every year. The number of serious drug reactions goes up every year.

Any prescription or non- prescription drug can cause a problem. Reactions that occur between medications are called drug interactions. A drug reaction may be an expected side effect of the medicine. Less commonly, it may be due to a drug allergy. A drug allergy is an overactive immune response to the drug. You might have a reaction that looks like a drug allergy, but it is actually a drug “reaction” and not a true allergy.

What causes a drug allergy?

There are many types and causes of allergic drug reactions. They may be due to your genetic makeup or the way your body metabolizes the drug.

Any person can have an allergic reaction to any drug. Allergic drug reactions are less common than other type of drug reactions.

Allergic drug reactions usually occur after having previously taken the drug (uneventfully). Sometimes they can occur with the first dose. You are more likely to have an allergy to a drug that caused a reaction in the past. It is possible to lose an allergy to a drug over time.

Penicillin causes many allergic drug reactions. Sulfonamide (sulfa-based) antibiotics may cause allergic drug reactions. Most people with a sulfa-based antibiotics drug allergy do not suffer reactions to non- antibiotics sulfa-based drugs. For this reason, these patients do not need to avoid all drugs that contain “sulfa” or “sulphur”.



What are symptoms of drug allergy?

Allergic drug reactions may cause:



Swelling of different body parts



Itchy skin



Skin rashes including hives or blisters, and they are most common



Anaphylaxis, a life-threatening allergic reaction



Lung, kidney, or liver damage



Wheezing or other breathing problems

The signs and symptoms of drug allergy may begin to appear within moments of taking the drug, but in some less common cases, they may appear hours, days, or even several weeks after taking the drug.

How is drug allergy diagnosed?

Drug reactions can be hard to diagnose. They can look like other diseases. It is important to figure out if the reaction you suffered is allergic or non-allergic. Your doctor may ask you to see an allergist. When you visit an allergist, you can help by writing down the following information ahead of time:

- When did you take the drug?
- When did you stop the drug?
- How long were you taking the drug before symptoms began?
- What symptoms did you have?
- What other prescription drugs did you take?
- What other non-prescription drugs, vitamins or supplements did you take?
- What are the exact names?
- What treatments did you get for the reaction?
- Have you had other drug reactions in the past?
- Do you have other medical or surgical problems?

What problems run in your family?

You should bring with you the exact names of all your drugs, prescription, non-prescription. If you can, bring the suspected drug with you. This will help the allergist recommend different drugs if you need them.

The allergist will do a physical examination and look for signs that could be part of the drug reaction. The allergist will consider both allergic and non-allergic reasons for the reaction.

Skin tests are not available for all drugs. Skin testing to penicillin is available and can help identify a true allergy. Since many people lose their allergy to penicillin over time, you may not need to always avoid this drug. An allergist can help you determine this.

Drug challenge tests can be helpful. For a drug challenge, you take the drug and a doctor observes your reaction in a controlled office setting. If you had a serious reaction to a drug in the past, then a drug challenge may be the best type of testing in the event that no other drug can save your life. Blood tests for some drugs are available, but they are less helpful than skin tests or challenges.



Treatments

For a mild reaction, just stopping the drug can stop the reaction. For a more serious allergic drug reaction that is not life-threatening, your allergist may give you:



A non-steroidal anti inflammation drug or a corticosteroid (to reduce inflammation)



An antihistamine (to counteract the histamine released into your body during the reaction)



Other medicines

Sometimes you can replace the drug with other medicines. If the drug you are allergic to is essential to your medical care, the allergist may offer you desensitization to the drug. Desensitization means taking the drug in small but increasing amounts until you can tolerate the needed dose. This must be done in a doctor's office or hospital where trained staff can help in case there are dangerous results. Desensitization does not work for all types of drug allergies.

What is anaphylaxis?

Anaphylaxis is a severe, life-threatening allergic reaction. This serious reaction happens within seconds to minutes after taking the drug. With this type of reaction, you may experience:

- Swelling of your body parts, with or without hives
- Light headedness or dizziness
- Wheezing, shortness of breath, throat closure
- Nausea, vomiting, diarrhea
- Sudden drop in your blood pressure, with or without loss of consciousness
- Shock, with damage to your internal organs

Anaphylaxis treatments help support your blood pressure and internal organs. Your doctor may give you a form of steroids. If you stop breathing, you may need other support such as artificial breathing.

Antihistamines might help but they will not keep you out of serious trouble. If you carry self-administered epinephrine (adrenalin), then you should take it immediately. If you do carry, be sure you really know how and when to use it so you can be prepared for an emergency. If you observe someone go into anaphylaxis, then be sure to put the person on their back and raise that person's feet. If they carry epinephrine, give them a dose.

Remember to call emergency telephone number **999** About 20% of patients may need a repeat dose of epinephrine 5-10 minutes or later if there is no improvement.



If you have a drug allergy:

- Make sure all of your doctors know which drug you took and the reaction you had.
- Check with your doctor about related drugs that you must avoid.
- Check with your doctor about you can take, if needed.
- Wear an emergency medical alert bracelet or necklace with an engraving of the drug's name.

Notes:

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