REACTIONS TO MEDICATIONS

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Unintended reactions to medication are common. A drug overdose causes a toxic reaction, but reactions to medication at usual doses may be caused by side effects associated with the particular drug, interactions with other drugs, and both allergic and non-allergic hypersensitivity reactions (exaggerated reactions by the immune system) (see what is an allergy).

DRUG ALLERGY

A drug allergy is a reaction to a drug that occurs at a dose tolerated by "normal people"and is caused by the immune system's response to the drug. Non-allergic drug hypersensitivity reactions occur when there is a reaction at a dose tolerated by "normal people"but the mechanism is not an immune reaction (for example, some people with genetic conditions where an enzyme required to process the drug may be lower or completely missing).

Drug allergies are divided into **immediate** or **delayed-onset reactions**.

- **Immediate reactions** are what people usually think of as a "typical" allergic reaction. They occur rapidly after exposure to the drug (within minutes to a few hours). The signs of drug allergy include rashes, especially hives (urticaria / "bommels"), and swelling, and if severe may progress to wheezing and collapse. Drug reactions are a common cause of severe anaphylactic reactions, especially in adults. A typical example is the reaction to penicillin antibiotics. (see Anaphylaxis)

- **Delayed reactions** occur 1 to 3 days after exposure.
  - These reactions may present with fever, swollen glands or a red bumpy rash.
  - Contact dermatitis is a delayed allergy caused by drugs coming into contact with the skin. Local anaesthetics and hair dyes can cause contact dermatitis (see contact dermatitis brochure).
  - Photosensitive reactions occur in areas where the skin is exposed to sunlight. Drugs that cause these reactions include doxycycline, ciprofloxacin, furosemide, ibuprofen, griseofulvin, isotretinoin and sulphonamides.

RISK FACTORS

Young and middle-aged adults and females are at higher risk for developing a drug allergy. Medication given into the veins rather than being taken by mouth is more likely to cause allergy. Medication given repeatedly or for a long time is also more likely to cause allergy.

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DIAGNOSIS

To diagnose a drug allergy the doctor has to know the exact reaction that occurred in detail, what the medication was, in what dose and form it was taken, and the time from taking the drug to the reaction. If a rash occurs it is useful to take photographs at all stages.

Depending on the type of reaction and the medication involved, it may be possible to do a blood test, a skin test, a patch test or a "drug challenge test" (where the medication is given under safe conditions in a hospital). For some drugs and reactions no tests are available. Even if one has taken a medication for the first time and had a reaction, it is important to see a doctor who will be able to advise you as to whether any testing is necessary.

MANAGEMENT

If you have a severe reaction to a medication stop it immediately and call your (or another) doctor to get emergency management and replacement medication.

Once you are diagnosed with an allergy, wear a medical alert bracelet and inform all family members, caregivers, pharmacists and doctors about it! MedicAlert® and medi-bands are examples of such bracelets, but there are other companies in South Africa who market similar medical tags. Medi-bands can be purchased on the AFSA products page.

You and your pharmacist should check the ingredients of generic and over-the-counter medications. You may need to avoid drugs in the same chemical group. To help you, get your doctor to write down a full list of medications to avoid.

A medical specialist with a special interest and skill in allergy might be able to help. See the list of health professionals with skills in allergy on the AFSA website.