

## About drug side-effects and allergies

### Introduction

This leaflet has been produced to provide you with information about side-effects of medicines and drug allergies, and the differences between the two. There are a variety of ways in which people can experience adverse reactions to medications, whether prescribed or bought 'over-the-counter'. Most of these effects are not an 'allergy'. Contrary to what most people think, only small amounts (5-10%) of all adverse drug reactions are caused by a drug allergy.

It is important to tell the doctor or healthcare professional looking after you about any drug allergies or side-effects to drugs you may have/or had as this may affect your current treatment.

It is important to know the difference between a drug allergy and side-effect because saying you have a drug allergy when in fact it is a side-effect may unnecessarily restrict the treatment choices available to treat your condition.

### What should I be aware of when taking my medicines?

Many medicines can cause side-effects e.g. some medicines may affect your sight or co-ordination or make you sleepy, which may affect your ability to drive, perform skilled tasks safely. The information leaflet provided with your medicine will list any side effects which are known to be linked to your medicine.

All medications have side-effects because of the way they work. The majority of people get none, or very few, but some people are more prone to them. The most common side-effects are usually nausea, vomiting, diarrhoea (or occasionally constipation), tiredness, rashes, itching, headaches and blurred vision.

### What should I do if I feel unwell after taking my medicine?

The information leaflet provided with your medicine will tell you what to do if you feel unwell after taking your medicine. You can also speak to your doctor or pharmacist, or call NHS Direct (0845 46 47).

### What is meant by a “common” or “rare” side effect?

The chance (risk) of having a side-effect can be described using words or figures or both. This is how the risks may be described in the information leaflet provided with your medicine:

- **Very common** means that more than 1 in 10 people taking the medicine are likely to have the side-effect
- **Common** means that between 1 in 10 and 1 in 100 people are affected
- **Uncommon** means that between 1 in 100 and 1 in 1,000 people are affected
- **Rare** means that between 1 in 1,000 and 1 in 10,000 people are affected
- **Very rare** means that fewer than 1 in 10,000 people are affected

If a side-effect has a risk of 1 in 10,000, then 9,999 out of every 10,000 people taking the medicine are not expected to experience that side-effect.

### Do side effects always come on straight away?

This depends on the medicine and the person.

Some side effects can happen immediately e.g. an allergic reaction but some side effects may not start for several days or even weeks. In general, side-effects are most likely to happen soon after you start a medicine or after your dose has been increased. Quite often, mild side effects will go away as your body adjusts to the new medicine or dose.

### Types of adverse reaction

Adverse reactions to drugs can be divided into three groups:

- Those not related to the drug at all, but coincidental and due to other factors, for example, rashes or nausea associated with the disease and not the medication.
- Common predictable reactions, such as from taking an overdose, or owing to side-effects or interactions with other medications.
- Uncommon and unpredictable reactions, of which many are allergic reactions involving the immune system and may be either immediate or delayed.

Allergic reactions vary from slight rashes to severe reactions involving the immune system, such as those seen with penicillin, blood transfusions and intravenous fluids.

### How can I reduce the risk of side-effects?

Take your medicine as advised by your pharmacist or the person who prescribed it. If you bought the medicine yourself, follow the dosage instructions on the packaging.

Be careful about mixing medicines. Some medicines should not be taken together. Before taking a new medicine it is important to tell your doctor or pharmacist about any other medicines you are already taking. You should also tell them about any herbal remedies or medicines you may have bought for yourself.

### What other factors can cause side effects?

#### Increased effect of the drug

Some people are more affected by drugs than others; there is a large degree of individual variation. Some people clear drugs more slowly than others from their body and levels of the drug may build up over time. This means that a dose of a drug that suits one person might be too much (or too little) for another.

There are unlikely to be toxic effects, as the doses prescribed take account of this variation and allow a wide margin of safety. However, it may be that a sedative that makes someone else sleep for a few hours might make another person sleep for much longer. This would be an increased effect rather than an allergy or intolerance.

#### Drug interactions

Many drugs interact in some way with others. Some interactions are so severe that the different drugs are never given together, but many are just 'warnings' - there may be some odd symptoms but not in most people. If you are taking more than one drug and experience odd symptoms, check whether an interaction could be to blame (ask your pharmacist or GP).

#### Contraindications

Some drugs are not supposed to be used in certain illnesses. This may be because they will not be cleared from the body, for example in people with kidney or liver disease; because they may cause problems for the unborn child in a pregnant woman; or because they are known to cause side-effects in particular illnesses.

## Allergy

Some people are genuinely allergic to a drug, but this is quite uncommon. Examples of drugs which can cause an allergic reaction are penicillin, some anaesthetics, and vaccines.

### What is meant by a drug allergy?

If you suffer a fairly severe adverse reaction to a drug, or a repeated reaction on different occasions, this will normally be considered to be an allergy. This should be recorded in your medical notes and you should not be given the drug again. In each group of drugs, there are some that are less likely to cause allergy problems.

True drug allergy is caused by an abnormal reaction of the immune system which results in production of antibodies capable of reacting to the drug. After these antibodies are produced, giving the drug again leads to its binding to the antibody and causing the release of chemicals that cause inflammation and allergic responses.

### What are the symptoms of drug allergy?

Symptoms can be mild to life-threatening. Even in people who are not allergic, many drugs can cause irritation, such as an upset stomach. But during an allergic reaction, the release of histamine can cause symptoms like [hives](#), skin rashes, itchy skin or eyes, stuffy nose, and swelling in the mouth and throat.

A more severe reaction may include difficulty breathing, blueness of the skin, [dizziness](#), fainting, [anxiety](#), confusion, rapid heart rate, nausea, [diarrhoea](#), and abdominal problems.

### How common are drug allergies?

Around 15 per cent of patients hospitalised in the UK report adverse reactions to medication, but less than five per cent of those reports are true allergic reactions (mostly to antibiotics). Of this five per cent, less than one per cent are fatal.

### How do I know if I have a drug allergy?

Blood tests are not usually very helpful in diagnosing drug allergies.

Most allergies are very specific - if you react to one antibiotic this does not mean you are more likely to react to other antibiotics, although you should not be given one of the same type.

If you are concerned, ask for a small test dose of a new drug before you are given the normal amount. Some drugs such as anaesthetics and vaccines can be checked by skin testing.

### What is the treatment for an allergic reaction to a drug?

Treatment involves immediate withdrawal of the implicated drug, followed by antihistamine medication. In cases of anaphylaxis, the prompt use of adrenaline and steroids is life-saving.

### How can I reduce the risk of having an allergic reaction?

If you're allergic to a member of a family of drugs such as penicillin or aspirin, all other members of that family should be avoided unless advised by a specialist.

It's possible to have an allergic reaction to almost any drug so only use medication if absolutely necessary or if it has been specifically prescribed for you.

If you are allergic to a drug, take responsibility for making sure everyone knows. Ask whether the allergy has been recorded in your notes and volunteer the information to everyone who is involved in your care, even if they don't ask. Make sure you are given an allergy bracelet in hospital. If your

allergy is severe, consider wearing your own allergy bracelet. If you are given drugs to take at home, read the label and patient information leaflet carefully.

### Are allergic reactions always related to the active drug?

No. Additives such as colourings and preservatives are used in the manufacture of drugs (just as they are in foods) and occasionally these (rather than the active drug itself) can cause an allergic reaction. All additives used within the European Community have an E number, if you have an allergy to an E number the only way to be sure that a medicine is safe, is to check exactly which E numbers are contained in it.

### Differences between allergic and non-allergic adverse drugs reactions

Allergic drug adverse reactions	Non-allergic drug adverse reactions
Require previous exposure to the drug	Can occur with the first administration of the drug
First episode takes days to develop	Symptoms can develop from the first day of treatment
Reducing the dose does not prevent an allergic attack	Smaller doses usually prevent the adverse effect

### Where can I get more information about drug allergies and side-effects of medication?

The information leaflet provided with your medicine should be able answer most questions. You can also speak to your doctor or pharmacist, or call NHS Direct (0845 46 47).

### Data Protection

Any personal information is kept confidential. There may be occasions where your information needs to be shared with other care professionals to ensure you receive the best care possible.

In order to assist us improve the services available your information may be used for clinical audit, research, teaching and anonymised for National NHS Reviews. Further information is available in the leaflet Disclosure of Confidential Information IL137, via Gateshead Health NHS Foundation Trust website or the PALS Service.

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