

Beta-blockers

Introduction

Beta-blockers (also known as beta-adrenoceptor blocking agents) are medications used to treat several conditions, often by decreasing heart activity. They block the release of the hormones adrenaline and noradrenaline in certain parts of the body.

Noradrenaline is a chemical released by nerves when they are stimulated. The noradrenaline passes messages to other parts of the body, such as muscles, blood vessels and heart.

When are they used?

Beta-blockers may be used to treat:

angina (chest pain caused by restricted blood flow to the heart)

heart failure (where the heart does not pump blood around the body effectively)

atrial fibrillation (irregular heartbeat)

heart attack

hypertension (high blood pressure)

Read more information about the uses of beta-blockers.

Less commonly, beta-blockers are used to prevent migraine or treat:

an overactive thyroid

anxiety conditions

tremor

glaucoma (as eye drops)

There are several types of beta-blocker and each has its own characteristics. The type prescribed for you will depend on your condition but they are all equally effective.

Things to consider

There are several things to consider before taking beta-blockers.

Make sure your doctor is aware if you have a history of:

asthma or any lung disease

heart disease

kidney disease

diabetes (especially in diabetics who have frequent episodes of low blood sugar)

allergic reaction to any medication

Your DOCTOR can tell you which medicine to use if you are pregnant or breastfeeding. It is important you don't stop taking beta-blockers without your DOCTOR's advice. In some cases, suddenly stopping the medicine may cause your condition to get worse.

If you want to check whether other medicines are safe to take with beta-blockers, ask your DOCTOR or pharmacist, or read the medicine's patient information leaflet.

Read more information about how beta-blockers interact with other medicines.

There may be side effects while taking beta-blockers, including the following:

dizziness

excessive tiredness

blurred vision

cold hands and feet

slow heartbeat

diarrhoea and nausea

Less common side effects include:

sleep disturbance (insomnia)

lack of sex drive (loss of libido)

depression

Missed or extra doses

If you forget to take a dose of beta-blockers, the general advice is described below.

If it is less than two hours late, take the dose as soon as you remember and continue as normal.

If it is more than two hours late, take the dose as soon as you remember, as long as the next dose is not due within a few hours, then continue as normal. If you take two doses closer together than normal, you may get more side effects.

If you are not sure what to do about your dose, check the patient information leaflet that comes with your medicine. This should give you advice about what to do.

Uses of beta-blockers

Beta-blockers block the release of the hormones adrenaline and noradrenaline in certain parts of the body. They help reduce blood pressure by making the heart work more slowly and improve blood flow by helping blood vessels to open.

Beta-blockers take some of the workload off the heart. This means the heart does not have to work so hard pumping blood around the body.

This medicine is especially important for people with angina (chest pain caused by restricted blood flow to the heart) or heart failure, or for those who have had a heart attack. It helps prevent attacks of angina and reduces your risk of having a further heart attack if you have already had one.

Beta-blockers control irregular heartbeats by blocking the electrical nerve impulses that stimulate the heart. This decreases the activity of the heart and can slow heart rate.

Beta-blockers are also commonly used to treat:

hypertension (high blood pressure): beta-blockers reduce blood pressure by slowing the heart rate and pumping force of the heart

heart failure (where the heart does not pump blood around the body effectively)

atrial fibrillation (irregular heartbeat)

Read more information about the uses of beta-blockers.

Beta-blockers are sometimes used to prevent migraine or treat:

an overactive thyroid

anxiety conditions

tremor

glaucoma: eye drops can be used which relieve pressure inside the eyeball by reducing production of aqueous humour (fluid inside the eyeball)

Special considerations

Before taking beta-blockers, make sure your doctor is aware of any other conditions you have as they may not be suitable to use.

When to avoid them

You should normally avoid taking beta-blockers if you have:

a history of asthma or narrowing of the airways (some beta-blockers may be occasionally used in people with these conditions, but only under the supervision of a doctor)

heart block (where the heart beats irregularly or more slowly than usual)

worsening, unstable heart failure (although beta-blockers can be used to treat stable heart failure)

severe peripheral arterial disease (partial or total blockage of an artery, usually one leading to a leg or arm)

Make sure your doctor is aware if you have a history of allergic reaction to any medication.

Using them with caution

Beta-blockers should be used with caution if you have:

diabetes (especially in diabetics who have frequent episodes of low blood sugar)

myasthenia gravis (a condition that causes muscle weakness)

slow heart rate

low blood pressure (hypotension)

phaeochromocytoma (high blood pressure caused by a tumour of the adrenal gland)

metabolic acidosis (high levels of acid in the blood)

Prinzmetal's angina (type of chest pain)

Pregnancy and breastfeeding

Some beta-blockers may be suitable for use in some stages of pregnancy and during breastfeeding.

Your DOCTOR can tell you which medicine to use if you are pregnant or breastfeeding.

Stopping beta-blocker treatment

Beta-blocker treatment must not be stopped suddenly without your DOCTOR's advice. Suddenly stopping the medicine may cause your condition to get worse, for example if you are taking it to treat angina or following a heart attack.

Side effects of beta-blockers

Common side effects of beta-blockers include:

dizziness

excessive tiredness

blurred vision

cold hands and feet

slow heartbeat

diarrhoea and nausea

Less common side effects include:

sleep disturbance (insomnia)

lack of sex drive (loss of libido)

depression

in men, problems getting an erection (impotence)

Driving while taking beta-blockers

Beta-blockers are unlikely to affect your ability to drive safely.

However, some people may sometimes feel dizzy or mentally or physically tired when taking beta-blockers. Do not drive if you have these side effects.

Interactions with other medicines

When two or more medicines are taken at the same time, the effects of one of the medicines can be altered by the other (drug-drug interaction). Beta-blockers (including beta-blocker eye drops) can interact with other medicines.

Some of the more common interactions are listed below. However, this is not a complete list.

If you want to check your medicines are safe to take with beta-blockers, ask your DOCTOR or pharmacist, or read the patient information leaflet that comes with your medicine.

Anti-arrhythmics

Anti-arrhythmics are medicines that control irregular heartbeats. There is a risk of myocardial depression (impaired function of the heart) and arrhythmias (irregular heartbeats) when beta-blockers are taken with these medicines.

Antihypertensives

Antihypertensives (medicines given to lower blood pressure) can cause low blood pressure (hypotension) when taken with beta-blockers.

Antipsychotics

Antipsychotics are medicines used to treat severe mental health problems. Some types of beta-blockers (for example, sotalol) can increase the risk of arrhythmias when given to people taking antipsychotics.

Other medication

Some specific medicines known to interact with beta-blockers are listed below.

Clonidine is medicine used to treat high blood pressure (hypertension) and migraine. Rebound hypertension (a sharp and sudden rise in blood pressure) can occur if you stop taking clonidine while taking a beta-blocker.

Diltiazem and digoxin can cause heart block and a slow heart rate when taken with beta-blockers.

Mefloquine can cause a slow heart rate when used with beta-blockers.

Verapamil, nifedipine and nisoldipine can cause severe low blood pressure and heart failure when taken with beta-blockers.

Missed or extra doses

Missed doses

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