



**Irish Heart
Foundation**

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STEP BY STEP THROUGH HEART MEDICINES

In association with



IRISH ASSOCIATION OF CARDIAC REHABILITATION



Produced by the Irish Heart Foundation

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The Irish Heart Foundation

As the national charity for heart disease and stroke, the Irish Heart Foundation is a community of people who fight to protect the cardiovascular health of everyone in Ireland.

Our vision is a future where no hearts are broken by preventable heart disease and stroke. Our mission is to eliminate preventable death and disability from heart disease and stroke and to support and care for those living with these life-changing conditions.

For more information or to donate, visit our website: www.irishheart.ie

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The Irish Association of Cardiac Rehabilitation (IACR)

The IACR was established in 1995. It is a multidisciplinary group under the auspices of the Irish Heart Foundation. It endeavours to promote a greater awareness and understanding of cardiac rehabilitation in Ireland and to facilitate communication and support between multi-disciplinary groups involved in the area.

The IACR works to:

- Advocate on behalf of cardiac rehabilitation in Ireland to ensure the service is protected, developed and available to all who require it.
- Co-operate and fully collaborate with existing international organisations working in this field to promote an evidence-based approach to client care with cardiac rehabilitation.
- Improve the standard of professional education within cardiovascular rehabilitation through the promotion of conferences, scientific meetings, publications and contact with appropriate international agencies.
- Encourage support and communication between cardiac rehabilitation multidisciplinary professionals who wish to promote a greater awareness and understanding of cardiac rehabilitation throughout the healthcare system.

For more information visit the IACR website: <https://iacronline.ie/>

Introduction

You should use this booklet alongside the advice your doctor gives you about your heart condition, and the information leaflet that came with your medicines in the packet. If you have any questions about your medicines, please ask your doctor, pharmacist or nurse.

This booklet describes the different medicines used for people with heart conditions such as angina, heart rhythm disorders or after a heart attack.

It also contains information on medicines used to manage heart disease risk factors such as high blood pressure and high cholesterol, and those used to help prevent blood clotting.

Your heart's main job is to pump blood around your body.

The medicines you take are to make your heart work better for longer.



Information you should know about your medicines

These medicines are usually for life. Keep a list of all the medicines you take. Remember to keep the list up to date. If you have any allergies, keep a list of these too. If you need to go into hospital, bring your list and all of your tablets with you.

Be familiar with each of the medicines that are prescribed for you. It's important to know the following:

- **Name:** Each medicine has two names. The name the company gives is called the brand name and the generic name; the name of the drug itself. Both these names are usually on the packet.
- **Dose:** The strength and how many times you take the medicine each day.
- **Why** you are taking it and how it works.
- **How** best to take it (for example, after food, at bedtime).

Try not to miss a dose. If you remember later that day, take the medicine as usual. If you don't remember until the next day, leave out the missed dose and don't take a double dose.

Before buying any medicines from your pharmacy (cough medicine, supplements, or herbal or complementary medicines), check that they are suitable for you, and that they do not interfere with the prescription medicines you are taking. Your pharmacist will be able to tell you this.

Store your medicines in a cool, dry place. Always keep your medicine out of sight and reach of children. Check the expiry date of old medicines and return those that are out-of-date to your pharmacy so they can get rid of them safely.

Medicines may cause side effects. These usually only affect a small number of people. Some may be more serious than others. If you feel you have a side effect, it is very important not to stop taking the medicine before talking to your doctor or pharmacist.

Do not change or stop your medicines without talking to your doctor.

Other things to think about

If you have trouble opening your medicine container, reading the labels, or understanding the instructions, tell your pharmacist. If you find it difficult to swallow your medicines, your doctor or pharmacist may have suggestions that can help.

Grapefruit (both juice and fruit) has been shown to affect how many heart medications break down (metabolise) in your body. For safety reasons, it is better to avoid all grapefruit products when you are on these medicines.

If you are paying for your medicines, and they are expensive, make sure you are registered with the Drugs Payments Scheme (DPS). This means that you and your family will not have to pay more than a fixed amount each month. Talk to your pharmacist about registering for this scheme.

Tell your doctor, nurse or pharmacist about any allergies or reactions to medicines you have had in the past.

If you find it hard to remember when to take your medicines, ask your doctor or pharmacist for some helpful tips. For example, you could use a calendar, ticking off when you take your medicines.



Non-steroidal anti-inflammatory Drugs (NSAIDs)

Paracetamol or paracetamol-based painkillers (such as Solpadeine®) are more suitable for those with heart disease. Anti-inflammatory type painkillers (NSAIDs) such as ibuprofen (Nurofen) and diclofenac are occasionally necessary and should be taken under the supervision of a doctor.

Recent evidence looking at the different NSAIDs available found that the use of diclofenac was associated with an increased risk of heart attack and stroke, particularly at high dose and in long-term treatment. Because of this it should not be taken by people with cardiovascular disease such as ischemic heart disease. If you have been prescribed diclofenac or have some at home, please check with your doctor before taking them. Other NSAIDs such as ibuprofen or naproxen may be a suitable alternative. Topical NSAIDs (gel or cream) containing diclofenac are still fine to use.



ACE (Angiotensin Converting Enzyme) Inhibitors

What do they do?

ACE inhibitors work on a substance in the body called Angiotensin Converting Enzyme (ACE). They are an important family of medicines that have many different uses.

- After a heart attack, they can help prevent another one, and stop any further damage to the heart.
- Lower blood pressure.
- Protect the kidneys if you have diabetes.
- Improve symptoms of heart failure and slow the progression of the disease.

Examples

- **Captopril** (Capoten®, Aceomel®, Captor®),
- **Enalapril** (Innovace®, Enap®),
- **Lisinopril** (Zestril®, Carace®, Lisopress®, Lispril®, Zesger®, Byzestra®),
Perindopril (Coversyl®),
- **Quinapril** (Accupro®),
- **Ramipril** (Tritace®, Ramic® Ramilo®).

Sometimes these drugs are combined with another drug if your blood pressure is still high. Examples are:

- Accuretic®, Capozide®, Coversyl-Plus®, Innozide®, Zestoretic®, (combined with a diuretic)
- Acerycal®, Triapin® (combined with a calcium channel blocker).

How and when should I take them?


Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. They are usually taken in the morning after breakfast. However, it is better to take perindopril on an empty stomach.

Side effects

Some people may develop:

- A persistent, dry irritating cough. It is most likely to happen if you have recently started on an ACE inhibitor. You should let your doctor know if this happens.
- Taste disturbances.
- Skin rashes.
- Headache.
- Disturbed sleep, but this will usually improve over time.

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.



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longer

Angiotensin II Antagonists (Angiotensin Receptor Blockers)

What do they do?

These drugs are closely related to the ACE inhibitors. They are used for similar conditions as the ACE inhibitors, but work in a slightly different way.

Examples

- **Candesartan** (Atacand®)
- **Eprosartan** (Teveten®)
- **Losartan** (Cozaar®)
- **Olmesartan** (Omesar®)
- **Benetor**®
- **Telmisartan** (Micardis®)
- **Valsartan** (Diovan®)

Combination products are also available. Examples are:

- Atacand Plus®, Co-Diovan®, Cozaar- Comp®, Micardis Plus®, Omesar Plus/ Benetor Plus®, (combined with a diuretic)
- Exforge®, Konverge®, Twynsta® (combined with a calcium channel blocker)

Some are combined with three medications for example Konverge plus with both a calcium channel blocker and a diuretic.

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist.

Side effects

Some people may develop:

- Dizziness
- Headache
- Fatigue
- Flu symptoms

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anything else I need to know?

If you have developed a troublesome cough with your ACE inhibitor medicine, these may provide a good alternative.

Ask your pharmacist if you have questions about your medicine



Diuretics

What do they do?

These are also called 'water tablets'. They are used to reduce fluid retention (oedema) that may cause ankle swelling or shortness of breath. They clear excess body water by increasing the amount of salt and water released in your urine. They also lower blood pressure.

Examples

- **Bendroflumethiazide** (Centyl®),
- **Bumetanide** (Burinex®), and
- **Furosemide** (Lasix®).

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. Diuretics are usually prescribed once or twice a day. If you take this medicine once a day, take it in the morning. If a second dose is prescribed, taking it after lunch will help prevent you needing to go to the toilet during the night.

Side effects

- Headache
- Muscle cramps
- Dry mouth
- Thirst
- Weakness
- Drowsiness
- Nausea

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anything else I need to know?

Some diuretics can affect your potassium level, and your doctor may arrange a blood test to check the level. If it is low, you may be given a potassium supplement or a diuretic with an extra medicine (potassium sparing diuretic) to keep the level in balance.

Examples of these include:

- **Frumil®** (furosemide + amiloride)
- **Centyl K®** (contains potassium)



Entresto (Sacubitril/Valsartan)

What does it do

Entresto is used to treat a type of long-term heart failure in adults. This type of heart failure occurs when the heart is weak and cannot pump enough blood to the lungs and the rest of the body.

How and when should I take it?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. Entresto is usually taken twice a day and your doctor will adjust the dose depending on how you respond to the treatment until the best dose for you is found.

Side effects

Some people may develop:

- low blood pressure (dizziness, light-headedness)
- high level of potassium in the blood (shown in a blood test)
- decreased renal (kidney) function (renal impairment)

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.



Sodium –glucose Cotransporters 2 (SGL2) inhibitors

What do they do?

SGL2 inhibitors lower blood sugar and improve renal (kidney) outcomes and in particular they reduce the risk of hospitalisations for heart failure.

Examples

- Canagliflozin
- Dapagliflozin
- Empagliflozin

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist.

Side effects

Some people may develop:

- Urinary tract infections
- Hypoglycaemia (low blood sugar)
- Genital yeast infections in men and women
- Rarely Ketoacidosis or lactic acidosis

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Aldosterone Antagonists

What do they do?

Aldosterone Antagonists block the effect of the hormone aldosterone on the heart. By blocking its effect, they can help maintain the pumping ability of the heart. Aldosterone Antagonists are used to treat heart failure and are also sometimes used after a heart attack.

Examples

- **Eplerenone** (Inspra®)
- **Spironolactone** (Aldactone®)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist.

Side effects

- Eplerenone and Spironolactone can cause a rise in the body's potassium level, so check with your doctor or pharmacist before taking any potassium supplements or products containing potassium. Usually your Doctor will arrange a blood test to check your potassium levels after starting these tablets.
- Spironolactone can cause breast pain and breast growth (in men). This is normally reversible when spironolactone is discontinued.

If you experience any side effects, particularly if you have recently started on the medicine or your dose has been increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Alpha-Blockers

What do they do?

Alpha-blockers relax the blood vessels by blocking the nerve signals that cause them to constrict (tighten). Alpha-blockers are used to lower blood pressure. They may also be used to manage symptoms of an enlarged prostate.

Examples:

- **Doxazosin** (Cardura®)
- **Prazosin** (Hypovase®)
- **Terazosin** (Hytrin®)

How and when should I take it?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. They are normally taken in the morning after breakfast.

Side effects

Some people may develop:

- Dizziness
- Headache
- Facial flushing
- A stuffy nose

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anti-arrhythmics

What does it do?

Amiodarone (Cordarone®) belongs to a class of drugs called antiarrhythmics. It is used to control an irregular or rapid heart rate. It works by correcting the rhythm of your heart and by slowing the heart if it is beating too fast.

How and when should I take it?

The tablets come in two strengths, 100mg and 200mg. Amiodarone is usually started at a high dose which is reduced down over a number of weeks. This is because it can take a long time to build up in the body. The final dose is usually 200mg a day.

Swallow the tablets with a drink of water. It may be taken either before, with or after food. Taking it with or after food may avoid stomach upset.

Side effects

Before starting treatment, it is important to read the manufacturer's printed information leaflet from inside your pack of tablets. This will give you more information about amiodarone, and a full list of its possible side effects. Things to watch for and that are being monitored by your doctor are:

- **Skin:** Amiodarone can make your skin very sensitive to sunlight, so you will burn more easily in the sun. This may occur during treatment, and last for several months after stopping amiodarone treatment. Your skin may also look blue grey in colour after several months especially on exposed areas. To minimize this effect, it is important to use a sunscreen containing titanium dioxide (with SPF of at least 15) every day on the areas of your skin exposed to daylight. Never use a sunbed. Wear a wide brimmed hat and keep arms and legs covered when in strong sun.

- **Thyroid function:** Your doctor will take blood tests to check your thyroid function before you start taking amiodarone and intermittently (usually every 6 months) during treatment. Both overactive thyroid and underactive thyroid may occur. Symptoms of an overactive thyroid include weight loss, tremor, and shortness of breath. Symptoms of an underactive thyroid include feeling cold, tiredness, thinning hair and constipation.
- **Liver function:** Your doctor will take blood tests to check your liver function before you start taking amiodarone and intermittently (usually every 6 months) during treatment. Let your doctor know if you notice yellowing of your skin or eyes, reduced appetite, stomach pains or high temperature.
- **Eyes:** You should have an annual eye test if you are on amiodarone. Let your doctor know if you experience blurred vision or a change in eyesight such as seeing a blue-green halo around objects. If you are a driver, you may find that you are dazzled by headlights if you drive at night.
- **Lungs:** You may occasionally need a chest x-ray if you are taking amiodarone. Let your doctor know if you experience difficulty breathing, chest tightness or coughing which will not go away.
- Other side effects to watch for are nausea, vomiting, taste disturbances. These are more likely to occur with higher doses.

Anything else I should know

Amiodarone can stay in your body a few months after stopping treatment. You may still get side effects in this time. You should continue to limit sunlight exposure and to wear sunscreen for this time.

Antiplatelet Drugs

What do they do?

Antiplatelets reduce the stickiness of platelets; the small blood cells that can clump together to form a clot. This helps to prevent clots in your blood vessels. They can also help prevent blood clotting in the vein grafts used in coronary bypass surgery. These drugs help prevent heart attacks and strokes.

Examples:

Aspirin

Aspirin is the most common antiplatelet used. The drug is also found in some over-the-counter preparations, but the dose that is needed for your heart is much lower than would be needed to relieve a headache or lower your temperature. There are two types of preparation:

- Coated tablets (enteric coated) – these should be swallowed whole.
- Soluble tablets – these can be dissolved in water or swallowed whole.

How and when should I take it?

You should take aspirin with or after food.

Side effects

Some people may develop:

- Bleeding or bruising
- Indigestion
- Tummy upsets and very rarely, ulcers.

Some people may be allergic to, or sensitive to aspirin, particularly some people with asthma.

If you experience any side effects, particularly if you have recently started on the medicine or your dose has been increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Ticagrelor (Brilique®)

Ticagrelor is another antiplatelet that can be used with aspirin if you have had a heart attack or unstable angina. Like other antiplatelet medicines it reduces the clumping of platelets in your blood and lowers the chances of a blood clot forming. This reduces the risk of you having (another) heart attack or a stroke or dying from a disease related to your heart or blood vessels.

How and when should I take it?

It needs to be taken twice a day. It's important to take your tablet around the same time every day.

Side effects

Some people may develop:

- Shortness of breath. If this happens to you or if your shortness of breath gets worse or lasts a long time, tell your doctor. He or she will decide if this needs treatment or further investigations.

Ticagrelor can interact with some other medicines including antibiotics. If you are prescribed a new medicine, particularly if it is not from your usual doctor, please tell her or him you are on ticagrelor.

Clopidogrel

Clopidogrel (Plavix®) is another antiplatelet. It may be used on its own (for example if aspirin does not suit you) or with aspirin in certain situations. For example, if you have experienced a severe type of chest pain known as unstable angina, if you have had a heart attack or stroke, or if you have had an angioplasty including a stent. In these situation, clopidogrel and aspirin are used together usually for a year, after which time the clopidogrel may be stopped. Your doctor may decide on this combination of medicines for a shorter time or may keep you on the two antiplatelets for much longer. This will depend on what the doctor thinks is right for you.

Prasugrel

Prasugrel (Efient®) is another antiplatelet that can be used together with aspirin, if you have had a heart attack or unstable angina and have been treated with an angioplasty and stent.

How and when should I take it?

You should take clopidogrel and prasugrel with or after food.

Side effects

Some people may develop:

- Bleeding such as bruising, nosebleeds or ulcers.
- Headache
- Diarrhoea
- Rashes

Tell your doctor if you get any of these.

Anything else I need to know?

Do not take painkillers containing aspirin. These include Disprin® and Anadin®. Ask your pharmacist for advice. If you have a history of breathing problems (asthma), tell your doctor. If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Beta Blockers

What do they do?

Beta blockers are a group of medicines that are used for angina, high blood pressure, irregular heart rhythms, and after a heart attack. They may also be used in heart failure.

In high blood pressure, beta blockers block the effect of adrenaline-like substances in the body and lower blood pressure. They also improve the efficiency of your heart by making its rhythm more regular.

Beta blockers reduce the effect of stress hormones that make the heartbeat faster and more vigorously. This slows the rate and force of the contraction of your heart. The effect is to reduce the workload on the heart by reducing the amount of oxygen needed by the heart muscle. This can help symptoms of angina (chest pain).

Beta blockers have a protective effect on the heart after a heart attack. They reduce the severity and risk of future heart attacks.

In heart failure they reduce symptoms and improve the pumping function of the heart.

Examples

- **Atenolol** (Tenormin®, Atenomel®, Atecor®, Atenogen®, Amolin®, Ateni®)
- **Bisoprolol** (Emcor®, Cardicor®, Bisopine®, Bisocor®, Emcolol®, Soprool®)
- **Carvedilol** (Eucardic®), Celiprolol (Selectol®)
- **Metoprolol** (Betaloc®, Lopresor®, Metocor®, Metop®)
- **Nebivolol** (Nebilet®)
- **Propranolol** (Inderal®)
- **Sotalol** (Sotacor®)

Combination products are also available. Examples are:

- Atecor CT®, Tenoret 50®, Tenoretic®, Atenetic® (combined with a diuretic)
- Beta-Adalat® or Niften® (combined with a calcium channel blocker).

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. You normally take beta blockers after breakfast with a glass of water. However, it is best to take Metoprolol on an empty stomach, usually twice a day.

Side effects

Some people may develop:

- Dizziness
- Headache
- Cold hands and feet
- Sweating
- Disturbed sleep
- Nightmares
- Fatigue
- Depression

Tell your doctor if any of these happen. Some people with diabetes find that their blood sugar levels rise a little when they start taking a beta-blocker. It may also make it more difficult for you to notice when your blood sugar drops (hypos).

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Other anti-angina drugs – Ranolazine (Ranexa®)

What does it do?

Ranolazine is used to treat angina, usually in combination with other medicines.

Examples

Ranolazine (Ranexa®)

How and when should I take it?

Follow the instructions on the pharmacy label. The starting dose is one 375mg tablet twice a day. After 2-4 weeks, your doctor may increase the dose to get the right effect. The maximum dose of ranolazine is 750mg twice a day.

If you are not sure of the instructions, ask your pharmacist. You will find a Patient Alert Card in the box, which contains important safety information that you need to know before and during treatment.

Ranolazine can be taken with or without food. Always swallow the tablets whole with water. Do not crush, suck or chew the tablets or break them in half, as this might affect the way the medicine is released from the tablets into your body.

If you forget to take a dose, take it as soon as you remember unless it is less than 6 hours before your next dose is due. Do not take a double dose to make up for a forgotten dose.

Side effects

Some people may develop:

- Dizziness or feeling sick or vomiting. Tell your doctor if you experience these side effects. Your doctor may lower your dose or stop treatment with ranolazine.
- Constipation
- Headache
- Feeling weak

Anything else I need to know?

Ranolazine can interact with some other medicines such as antibiotics. If you are prescribed a new medicine, particularly if it not from your usual doctor, please tell her or him you are on ranolazine.

Calcium Channel Blockers

What do they do?

Calcium channel blockers reduce the amount of calcium entering the muscle cells in your heart and blood vessels. This relaxes the blood vessels and lowers your blood pressure. Some of them (non-dihydropyridine derivatives) also lower your heart rate. They increase blood and oxygen supply to the heart muscle and reduce its workload. This group of medicines is mainly used for angina and to manage irregular heart rhythms. Another group (the dihydropyridine derivatives) are mainly used to treat high blood pressure.

Examples

Dihydropyridine derivatives:

- **Amlodipine** (Istin®, Amlist®)
- **Felodipine** (Plendil®)
- **Lercanidipine** (Zanidip®)
- **Nifedipine** (Adalat®, Nifed®)

Non-dihydropyridine derivatives:

- **Diltiazem** (Dilzem®, Adizem®, Entrydil®)
- **Verapamil** (Isoptin®, Veramil®)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. You normally take calcium channel blockers after food with a glass of water. However, it is best to take lercanidipine on an empty stomach.



Side effects

Some people may develop:

- Headache
- Swelling of the ankles
- Facial flushing
- Dizziness and difficulty sleeping
- Verapamil may cause constipation

These effects may go away within a week or so.

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anything else I need to know?

Some of these medicines are available as a slow-release preparation. You will know this by the letters LA, Retard, SR or XL after the medicine name. If this is the case, it is important to always take the same brand of your medicine. This is because different brands can vary in how they release the drug into your bloodstream.

Cholesterol-lowering drugs

Having high cholesterol is one of the risk factors for heart disease so it is important that you keep your cholesterol level healthy. You can do this through a combination of healthy eating and medicines. There are two main types of cholesterol - high density lipoprotein – (HDL) and low-density lipoprotein (LDL). Triglycerides (TGs) are another type of fat found in your blood. See the Irish Heart Foundation’s booklet on cholesterol for more information.

It is particularly important that your LDL level (bad cholesterol) is kept low. Different drugs can lower different fats by different amounts. These drugs are usually long-term medicines. This is because your cholesterol will only be lowered as long as you take the medicine.

Statins

What do they do?

Statins are the main cholesterol drugs used. They lower cholesterol by reducing the production of cholesterol by your liver. They are an extremely important family of medicines for people with cardiovascular disease. Although one of their main functions is to lower cholesterol, they have other favourable effects on the cardiovascular system. As a result, they are even used in people whose cholesterol is normal. Taking your statin regularly can help slow down the build-up of plaque (fatty deposits) in your blood vessels and stabilise plaque that is already there.

Your doctor may occasionally prescribe a very high dose of a statin to avail of its anti-inflammatory property, even when your cholesterol is normal or in the low-normal range.

Examples

- **Atorvastatin** (Lipitor®)
- **Fluvastatin** (Lescol®)
- **Pravastatin** (Lipostat®, Pravitin®, Pravamel®, Pravat®, Bystat®, Cholstat®)

- **Rosuvastatin** (Crestor®)
- **Simvastatin** (Zocor®, Sivatin®, Simator®, Simzor®, Simtan®, Ritechol®)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. Most of the cholesterol that your liver makes is produced at night-time so you may have been told to take your statin at night. This is necessary, only if you have been prescribed fluvastatin, pravastatin or simvastatin. If you are taking atorvastatin or rosuvastatin, you can take these medicines at whatever time of the day best suits you.

Side effects

Some people may develop:

- Indigestion
- Headache
- Liver problems and inflammation of the muscles (myositis). Because of this, you should have your liver function tested shortly after starting the statin and then once a year. You should tell your doctor immediately if your urine is dark (brown) or if you have any unexpected muscle pains, tenderness or weakness, particularly if your dose has recently been increased or you have started another new medication.

If you experience any side effects, particularly if you have been recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anything else I need to know?

It is important to know that statins are very safe medicines and have many beneficial effects on your cardiovascular system.

Other cholesterol-lowering drugs

Ezetemibe (Ezetrol)

Ezetemibe is another cholesterol-lowering drug that works by reducing the amount of cholesterol that your body absorbs from your gut. It is best used in combination with a statin, for example if your cholesterol is still high on a statin alone (e.g., Inegy®). Ezetemibe can, however, be also used on its own if a statin does not suit you, although it will not be as effective.

Nicotinic acid (Niaspan®)

Nicotinic acid lowers LDL (bad cholesterol) and triglycerides (TG), by reducing the amount your body produces. Nicotinic acid is particularly good at increasing the amount of HDL (good cholesterol) in the body.

With Niaspan®, flushing is a common side effect, although taking your tablet in the evening time, (after a low-fat snack) and taking your aspirin 30 minutes before your Niaspan® may reduce this. This side effect usually improves after a few weeks. Other side effects may include indigestion (dyspepsia), itching and skin rashes.

Fibrates – fenofibrate (Lipantil®), gemfibrozil (Lopid®)

Fibrates are a group of cholesterol-lowering drugs that are particularly good at lowering Triglycerides as well as LDL. You may be prescribed a fibrate together with your statin. If you are taking a fibrate with a statin, it's even more important to have regular liver function tests and a review by your cardiologist. Your GP should arrange these tests for you.

Proprotein Convertase Subtilisin/Kexin type 9 (PCSK9) Serine Protease

What do they do?

PCSK9 serine protease helps lower your levels of “bad” or LDL cholesterol. They attach to a substance called PCSK9 that affects the liver’s ability to take in cholesterol. By attaching to, and mopping up PCSK9, the medicine increases the amount of cholesterol entering the liver and so lowers the level of cholesterol in the blood.

- Lower cholesterol levels together with a statin or other cholesterol lowering medication, if the maximum dose of a statin does not lower levels sufficiently.
- Lower cholesterol levels alone or together with other cholesterol lowering medicines when statins are not tolerated or cannot be used.

Examples

- **Alirocumab** (Praluent)
- **Evolocumab** (Repatha)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. They are usually given as an injection under the skin every 2 weeks or once a month.

Side effects

Some people may develop:

- Redness, itching, swelling, pain/tenderness where the medicine was injected
- Upper respiratory tract signs or symptoms such as sore throat, running nose, sneezing
- Allergic reactions including rash
- Pain (back, joint, muscle including headache)

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Cardiac Glycosides

What does it do?

This slows and strengthens the heartbeat, which allows it to pump more efficiently. It is often used to treat atrial fibrillation, a common heart rhythm problem where the heart beats irregularly, usually too fast. The drug can also be used in heart failure to reduce symptoms.

Examples

Digoxin (Lanoxin®)

There are two strengths of tablets available

- Blue – 62.5 microgram tablets (Lanoxin PG®)
- White – 250 microgram tablets (Lanoxin®)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist.

Side effects

Some people may develop:

- Feeling sick
- Upset stomach
- Vomiting
- Palpitations
- Dizziness
- Drowsiness

If you get any of these symptoms, you should tell your doctor as he or she may need to adjust your dose. Your doctor can check the level of Digoxin in your blood to make sure you are on the correct dose. Other medication can affect the level of Digoxin in the blood so make sure your doctor knows you are taking this, you may need a digoxin level check.

If you have any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anything else I need to know?

If your dose is 125 micrograms, for example, it is more accurate to take two of the blue tablets rather than half a white tablet.

Return
out-of-date
medicines
to your
pharmacist



Sinoatrial Current Inhibitors

What do they do?

This drug lowers the heart rate by its action on the sinus node. It is a new medicine for angina that can be used instead of beta-blockers when they are not suitable or tolerated, or in combination with beta-blockers for added effect. It lowers the heart's need for oxygen, particularly in situations when you are more likely to have an angina attack. People with heart failure may also be treated with this medicine.

Examples

Ivabradine (Procoralan®)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist. You should take this tablet with or after food.

Side effects

Some people may develop:

- Vision disturbances with brief moments of increased brightness, most often due to a change in light intensity (temporary luminous visual phenomena). If this happens be careful when driving especially at night.
- Blurred vision
- Headache
- Dizziness
- Palpitations

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Nitrates

What do they do?

Nitrates are used mainly for angina. They relax the muscles in the walls of the veins and arteries (including coronary arteries) and make them wider. This improves blood flow and therefore oxygen to the heart. The oxygen in the blood helps to either prevent or treat angina (chest pain).

Examples

There are many different formulations of nitrates available.

a) Injection – only used in hospitals

b) Sublingual Spray (Glytrin® or Nitrolingual®) and Buccal tablets (Suscard®)

These are used, when needed, to relieve angina or if you are going to do something that you know is likely to bring on angina. You should use the spray under your tongue. Make sure you know how to use it and store the spray out of direct sunlight.

Some tablets (Suscard®) may also be used, like the spray, when you need them. You put them between your lip and gum and let them dissolve there. You may get a throbbing headache when using these products. If this happens, take two paracetamol tablets (unless you are allergic to paracetamol) for the pain. If you have taken the Suscard, and the pain has gone, you may spit out the rest of the tablet if you want.

You can feel flushed, dizzy or faint when taking these medicines. Because of this, it is important to sit down before using these medicines and to stay sitting for a few minutes afterwards.

c) Regular or slow-release tablets, for example Elantan[®], Elantan LA[®], Imdur[®].

Another formulation of a nitrate includes isosorbide. This can prolong the time the drug works in your system, and so only needs to be taken once daily (Elantan LA[®], Imdur[®]), or twice daily (Elantan[®]). You need to take these every day because their purpose is to prevent angina, rather than treat an actual attack. You can use them in combination with the spray or Suscard Buccal[®], if your doctor feels you need both.

These tablets may also give you a headache at first, but this usually disappears after a few days to weeks.

d) Patches, for example, Deponit[®], Transiderm[®].

These are also used to prevent angina. When using them, it is important to take the patch off for several (usually eight) hours in each 24-hour period (for example, you would put one on at 7am, and take off at 11pm). This is because your body needs hours when the nitrate levels are lower to make sure the drug continues to work effectively over time. There is still enough of the drug in your bloodstream to control your symptoms even when you are not wearing the patch. The patch is usually taken off during the time when you are less likely to get angina. For most people this is night-time, although your doctor may decide another time is more suitable for you.

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist.

Side effects

Some people may develop:

- Headache but these usually get better as you continue to take the medication.

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Potassium Channel Openers

What do they do?

Potassium channel openers allow more oxygen-rich blood to reach the heart muscle and reduce the workload on the heart. They help to prevent angina by opening blood vessels.

Examples

Nicorandil (Ikorel[®]) is the only drug in this family.

How and when should I take them?

You usually take nicorandil twice a day. Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist.

Side effects

Some people may develop:

- Headache when you first start taking this medicine or if your dose has just been increased.
- Flushing
- Dizziness
- Feeling sick
- Indigestion

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anticoagulants

What do they do?

Anticoagulants reduce the risk of blood clotting. They work in a different way to antiplatelets such as aspirin and may sometimes be used in combination with antiplatelets. They are used for many conditions such as atrial fibrillation (irregular heartbeat) or for people who have had a heart valve replaced or blood clots.

Examples

Warfarin (Warfant®, Warfarin Teva®)

How and when should I take them?

Follow the instructions on the pharmacy label. If you are not sure of the instructions, ask your pharmacist to clarify. The dose of warfarin will depend on a blood test result known as the International Normalised Ratio (INR). This result tells you how 'thin' your blood is. You will need regular blood tests to keep your result within your ideal or 'target INR' range. Make sure your clinic gives you a warfarin booklet as well, as this has important instructions for people taking warfarin.

Side effects

People taking warfarin should look out for any bleeding which goes on for longer than normal, for example, nosebleeds, bleeding gums, bruising or red or dark bowel movements / urine. This may be a sign that your dose is too high, and so it is important to contact your GP or warfarin clinic as soon as possible.

If you experience any side effects, particularly if you have recently started on the medicine or your dose has increased, you should speak to your doctor or pharmacist. The patient information leaflet in the medicine packet contains more information on side effects.

Anything else I need to know?

If you are taking anticoagulants, you should never take any other medicines, including over the counter (OTC) medicines, supplements or herbal preparations, without first checking with your doctor or pharmacist.

It is also important to avoid drinking cranberry juice if you are on warfarin.

Try to keep your diet regular. You can drink small amounts of alcohol, ideally less than the recommended maximum levels, but no more than two units a day. If in doubt discuss this with a nurse or doctor.

Check with your doctor before having any dental work, scopes or surgical procedures.



Never change your dose or stop taking your medicines without talking to your doctor.



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