



**IRISH HEART  
FOUNDATION**  
Fighting Heart Disease & Stroke

[www.irishheart.ie](http://www.irishheart.ie)

# STEP BY STEP THROUGH HEART MEDICINES

In association with



IRISH ASSOCIATION OF CARDIAC REHABILITATION



## **Produced by the Irish Heart Foundation**

Produced by the Irish Heart Foundation in association with the Irish Association of Cardiac Rehabilitation. This booklet is one of the publications in our patient information series.

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## **Acknowledgments**

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## **The Irish Heart Foundation**

We are the national charity fighting heart disease and stroke. More people in Ireland die from these causes than from cancer, road deaths and suicide combined. We work to bring hope, relief and a better future to Irish families. We support pioneering medical research, campaign for improved patient care and provide vital support and information for patients. In hospitals, schools and workplaces, we support, educate and train people to save lives. As a charity we depend on your ongoing support - through your donations or by giving of your time as a volunteer or on a training course.

For more information or to donate, visit our website: [www.irishheart.ie](http://www.irishheart.ie)

## **Heart and Stroke Helpline:**

Locall 1890 432 787 (Monday to Friday 10.00am to 5.00pm)

Irish Heart Foundation,  
50 Ringsend Road,  
Dublin 4.

**Phone:** +353 1 668 5001

**Fax:** +353 1 668 5896

**Email:** [info@irishheart.ie](mailto:info@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 our website: [www.iacr.info](http://www.iacr.info)

## Introduction

You should use this booklet alongside the advice that your doctor gives you about your heart condition, and the information leaflet in the medicine 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 explains about medicines used to manage heart disease risk factors such as high blood pressure and high cholesterol, and also about medicines 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 medicine

**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. The generic name is 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 where children cannot see or reach them. Check the expiry date of old medicines and return any out-of-date medicines 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 do not understand the instructions, tell your pharmacist. If you find it difficult to swallow your medicines, your doctor or pharmacist may have suggestions.

**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 €120 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've had in the past.

**If you find it hard to remember when to take your medicines,** ask your doctor or pharmacist for some suggestions. You could use a calendar, ticking off when you take your medicines.

\* Based on the current Drugs Payment Scheme as at July 2011.

## Medicines Table

This is an example of different drugs available. It is not a complete list. You may be prescribed a brand of medicine that is not listed here. Ask your nurse or pharmacist to write in the details of the medicine in the table.

Drug Class	Drug (generic) Name	Brand Name	Page
<b>ACE Inhibitors</b> <b>Angiotensin Converting Enzyme</b>	<b>Captopril</b> <b>Enalapril</b> <b>Lisinopril</b>  <b>Perindopril</b> <b>Quinapril</b> <b>Ramipril</b>	Capoten® Aceomel® Captor® Innovace® Enap® Zestril® Carace® Lisopress® Lispril® Zesger® Byzestra® Coversyl® Accupro® Tritace® Ramic® Ramilo®  Combination products are also available. Examples are: Accuretic® Capozide® Coversyl-Plus® Innozide® Zestoretic® (combined with a diuretic) and Acercal® or Triapin® (combined with a calcium channel blocker).	9
<b>Aldosterone Antagonists</b>	<b>Eplerenone</b> <b>Spironolactone</b>	Inspra® Aldactone®	11
<b>Alpha Blockers</b>	<b>Doxazosin</b> <b>Prazosin</b> <b>Terazosin</b>	Cardura® Hypovase® Hytrin®	12
<b>Angiotensin II Antagonists (= Angiotensin Receptor Blockers)</b>	<b>Candesartan</b> <b>Eprosartan</b> <b>Losartan</b> <b>Olmesartan</b> <b>Telmisartan</b> <b>Valsartan</b>	Atacand® Teveten® Cozaar® Omesar® Benetor® Micardis® Diovan®  Combination products are also available. These include: Co-Diovan® Cozaar-Comp® Atacand Plus® Omesar Plus/Benetor Plus® Micardis Plus® (combined with a diuretic), and Konverge® Exforge® Twynsta® (combined with a calcium channel blocker).	13

<b>Drug Class</b>	<b>Drug (generic) Name</b>	<b>Brand Name</b>	<b>Page</b>
<b>Antiplatelet Drugs</b>	<b>Aspirin</b> <b>Clopidogrel</b> <b>Prasugrel</b>	Aspirin Plavix® Efient®	14
<b>Beta Blockers</b>	<b>Atenolol</b>  <b>Bisoprolol</b>  <b>Carvedilol</b> <b>Celiprolol</b> <b>Metoprolol</b>  <b>Nebivolol</b> <b>Propranolol</b> <b>Sotalol</b>	Tenormin® Atenomel® Atecor® Atenogen® Amolin® Ateni®  Emcor® Cardicor® Bisopine® Bisocor® Emcolol® SoproI®  Eucardiac®  Selectol®  Betaloc® Lopresor® Metocor® Metop®  Nebilet®  Inderal®  Sotacor®  Combination products are also available. Examples are: Atecor CT® Tenoret 50® Tenoretic® Atenetic® (combined with a diuretic) and Beta-Adalat® or Niften® (combined with a calcium channel blocker).	16
<b>Calcium Channel Blockers</b>	<b>Amlodipine</b> <b>Felodipine</b> <b>Lercanidipine</b> <b>Nifedipine</b>  <b>Diltiazem</b> <b>Verapamil</b>	<u>Dihydropyridine derivatives:</u> Istin® Amlist® Plendil® Zanidip® Adalat® Nifed®  <u>Non-dihydropyridine derivatives:</u> Dilzem® Adizem® Entrydil® Isoptin® Veramil®	18

<b>Drug Class</b>	<b>Drug (generic) Name</b>	<b>Brand Name</b>	<b>Page</b>
<b>Cholesterol Lowering Drugs (Statins)</b>	<b>Atorvastatin</b>	Lipitor®	20
	<b>Fluvastatin</b>	Lescol®	
<b>Other Cholesterol Lowering Drugs</b>	<b>Pravastatin</b>	Lipostat® Pravatin® Pravamel® Pravat® Bystat® Cholstat®	22
	<b>Rosuvastatin</b>	Crestor®	
<b>Other Cholesterol Lowering Drugs</b>	<b>Simvastatin</b>	Zocor® Sivatin® Simator® Simzor® Simtan® Ritechol®	22
	<b>Ezetemibe</b>	Ezetrol®	
	<b>Nicotinic acid</b>	Niaspan®	
	<b>Fibrates:</b>	<u>Fibrates:</u>	
	<b>Fenofibrate</b>	Lipantil®	
	<b>Gemfibrozil</b>	Lopid®	
<b>Cardiac glycosides</b>	<b>Digoxin</b>	Lanoxin®	23
<b>Diuretics</b>	<b>Bendroflumethiazide</b>	Centyl®	24
	<b>Bumetanide</b>	Burinex®	
	<b>Furosemide</b>	Lasix®	
<b>Sinoatrial Current Inhibitors</b>	<b>Ivabradine</b>	Procoralan®	25
<b>Nitrates</b>	<b>Sublingual Spray</b>	Glytrin® or Nitrolingual®	26
	<b>Buccal tablets</b>	Suscard®	
	<b>Oral tablets</b>	Imdur® Elantan® Elantan LA®	
	<b>Patches</b>	Transiderm® Deponit®	
<b>Potassium Channel Openers</b>	<b>Nicorandil</b>	Ikorel®	28
<b>Anticoagulants</b>	<b>Warfarin</b>	Warfant® Warfarin Teva®	29
	<b>Dabigatran</b>	Pradaxa®	

<b>Drug Class</b>	<b>Drug Name</b>	<b>Info</b>

## ACE (Angiotensin Converting Enzyme) Inhibitors

### What do they do?

ACE inhibitors work on a substance in the body called ACE – Angiotensin Converting Enzyme. 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.
- They lower blood pressure.
- They protect the kidneys if you have diabetes.
- They improve symptoms of heart failure and slow the progression of the disease.

### Examples

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

Sometimes these drugs are combined with another drug if your blood pressure is still high. Examples are Accuretic<sup>®</sup>, Capozide<sup>®</sup>, Coversyl-Plus<sup>®</sup>, Innozide<sup>®</sup>, Zestoretic<sup>®</sup>, (combined with a diuretic), and Acerycal<sup>®</sup>, Triapin<sup>®</sup> (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 on these medicines. It is most likely to happen if you have recently started on an ACE inhibitor. You should let your doctor know if this happens. Some ACE inhibitors may also affect your sense of taste, or cause skin rashes. You may also get a headache or your sleep may be disturbed, 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.



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

## 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 sometimes after a heart attack.

### Examples

**Eplerenone** (Inspra®), **Spirolactone** (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 Spirolactone 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.

Spirolactone 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 them?

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

Side effects may include dizziness, headache, facial flushing and 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.

## 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. You may even be prescribed both medicines.

### 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), and Exforge®, Konverge®, Twynsta® (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.

### Side effects

Dizziness, headache, fatigue and flu symptoms are the most common side effects with these medicines. 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.

### Anything else I need to know?

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

## 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

Side effects can include 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.

## **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, have had a heart attack or angioplasty including a stent. Clopidogrel and aspirin are usually used together 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 a new antiplatelet that can be used instead of clopidogrel after you have had angioplasty and a stent inserted.

### **How and when should I take it?**

You should take clopidogrel and prasugrel with or after food.

### **Side effects**

Clopidogrel and prasugrel, like aspirin, may cause bleeding such as bruising, nosebleeds or ulcers. Other side effects are headache, diarrhoea and 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 heart beat 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).

**Ask your  
pharmacist if you  
have questions  
about your  
medicine**



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

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

### Examples

**Atenolol** (Tenormin<sup>®</sup>, Atenomel<sup>®</sup>, Atecor<sup>®</sup>, Atenogen<sup>®</sup>, Amolin<sup>®</sup>, Ateni<sup>®</sup>)

**Bisoprolol** (Emcor<sup>®</sup>, Cardicor<sup>®</sup>, Bisopine<sup>®</sup>, Bisocor<sup>®</sup>, Emcolol<sup>®</sup>, Soprol<sup>®</sup>)

**Carvedilol** (Eucardic<sup>®</sup>), **Celiprolol** (Selectol<sup>®</sup>), **Metoprolol** (Betaloc<sup>®</sup>, Lopresor<sup>®</sup>, Metocor<sup>®</sup>, Metop<sup>®</sup>), **Nebivolol** (Nebilet<sup>®</sup>), **Propranolol** (Inderal<sup>®</sup>), **Sotalol** (Sotacor<sup>®</sup>).

Combination products are also available. Examples are: Atecor CT<sup>®</sup>, Tenoret 50<sup>®</sup>, Tenoretic<sup>®</sup>, Atenetic<sup>®</sup> (combined with a diuretic) and Beta-Adalat<sup>®</sup> or Niften<sup>®</sup> (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

Side effects include tiredness, dizziness, headache, cold hands and feet, sweating, disturbed sleep, nightmares, fatigue and 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.

## 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<sup>®</sup>, Amlist<sup>®</sup>), **Felodipine** (Plendil<sup>®</sup>), **Lercanidipine** (Zanidip<sup>®</sup>), **Nifedipine** (Adalat<sup>®</sup>, Nifed<sup>®</sup>).

#### Non-dihydropyridine derivatives:

**Diltiazem** (Dilzem<sup>®</sup>, Adizem<sup>®</sup>, Entrydil<sup>®</sup>), **Verapamil** (Isoptin<sup>®</sup>, Veramil<sup>®</sup>).

### 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

Side effects include headache, swelling of the ankles, facial flushing, dizziness and difficulty sleeping. These effects may go away within a week or so. Verapamil may cause constipation.

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.

**Return  
out-of-date  
medicines  
to your  
pharmacist**



## Cholesterol-lowering drugs

Having high cholesterol is one of the risk factors for heart disease, and 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®), or **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

These are usually mild and include indigestion and headache. Rarely, people can have 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

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### **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 TGs 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.

## Cardiac Glycosides

### What does it do?

This slows and strengthens the heart beat, 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

These may include feeling sick or having an upset stomach. Less commonly, it may cause vomiting, palpitations, dizziness and 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.

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.

## 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 and nausea may occur.

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) or Centyl K® (contains potassium).

## Sinoatrial Current Inhibitors

### What does it 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.

### 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

This may affect your vision 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 when driving at night. Other possible side effects include headache, dizziness, blurred vision and 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 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 needs only 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**

Nitrates can cause 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

You may get a headache when you first start taking this medicine or if your dose has just been increased. Other side effects include, flushing, dizziness, feeling sick and 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 aspirin or clopidogrel and may sometimes be used in combination with these antiplatelet medicines. They are used for many conditions such as atrial fibrillation (irregular heartbeat) or for people who have had a heart valve replaced.

### Examples

**Warfarin** (Warfant<sup>®</sup>, Warfarin Teva<sup>®</sup>)

### 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. The dose of warfarin will depend on a blood test result known as the INR (International Normalised Ratio). This result tells us 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 be aware of 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 supplements or herbal preparations, without first checking with your doctor or pharmacist.

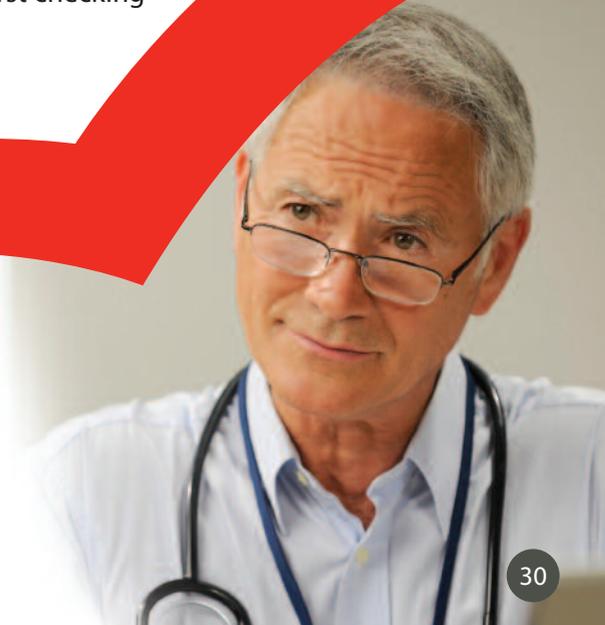
It is also important to avoid drinking cranberry juice.

Try to keep your diet regular. You can drink alcohol if you want to, 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 minor surgery.

### **Dabigatran** (Pradaxa®)

More people are being offered dabigatran as an alternative to warfarin to treat atrial fibrillation. It is more expensive but does not need regular INR checks. Its disadvantage is it does not have an antidote. As with warfarin, people taking dabigatran should contact their doctor if they have any bleeding which goes on for longer than normal. Also similar to warfarin, don't take any other medicines, including supplements and herbal preparations without first checking with your doctor or pharmacist.





## Please make a donation today

The Irish Heart Foundation is Ireland's national charity dedicated to the reduction of death and disability from heart disease and stroke. Over 90% of our funding comes from public and business donations. We depend on your goodwill and generosity to continue our work.

**If you found this booklet useful, please help our charity to continue to provide heart & stroke information by donating today.**

### You can make your donation today:

**By post:** Irish Heart Foundation, 50 Ringsend Road, Dublin 4

**Online:** [www.irishheart.ie](http://www.irishheart.ie)

**By phone:** 01 6685001

### Personal Details

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_

### Credit or debit card (one off donation)

Amount:  €250\*  €100  €50  €25  Other € \_\_\_\_\_

Card Number:

Exp Date:   /   Security Code\*\*:

Signature: \_\_\_\_\_ Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

\* If you donate €250 in one year (or €21 per month) we can claim tax back at no cost to you.

\*\* Last 3 digits on the signature strip on the reverse of your card.

The Irish Heart Foundation is committed to best practice in fundraising and adheres to the **statement of guiding principles for fundraising** promoting transparency, honesty and accountability. Any personal information you provide will be held in accordance with the Data Protection Acts 1988 and 2003.

## SEPA Direct Debit Mandate

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### Unique Mandate Reference:

### Creditor Identifier: IE02ZZZ306322

By signing this mandate form, you authorise (A) the Irish Heart Foundation to send instructions to your bank to debit your account and (B) your bank to debit your account in accordance with the instruction from the Irish Heart Foundation.

As part of your rights, you are entitled to a refund from your bank under the terms and conditions of your agreement with your bank. A refund must be claimed within 8 weeks starting from the date on which you account was debited. Your rights are explained in a statement that you can obtain from your bank.

Please complete all the fields below marked\*

\*Bank Name: \_\_\_\_\_

\*Address: \_\_\_\_\_

\*Account number (IBAN): \_\_\_\_\_

\* Swift BIC: \_\_\_\_\_

Creditor Name: **IRISH HEART FOUNDATION**

Creditor Address: **50 RINGSEND ROAD, DUBLIN 4, IRELAND**

\*Type of Payment:  Recurrent (Monthly)  One-off Payment

\* Signature: \_\_\_\_\_ \*Date Signed: \_\_\_\_\_

Please return completed form to the Irish Heart Foundation.

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My monthly instalment amount is:  €21\*  €18  €15  €10  
 Other € \_\_\_\_\_ per month

\*A regular gift of €21 per month could be worth an additional €9 from the Revenue Commissioners per month at no extra cost to you.

Your first contribution will be taken on either the 2nd or the 20th of the next available month. Please select which date you prefer.  2nd  20th

*You will be notified in writing ten days in advance of your first direct debit. If you wish to cancel within 7 days of a direct debit payment please contact your own bank.*

### Preferences

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I would like to hear about other IHF events, activities, awareness campaigns and appeals.

Yes

Do you need a postal receipt:  Yes  No

## More information

### Useful websites:

[www.irishheart.ie](http://www.irishheart.ie)

[www.stroke.ie](http://www.stroke.ie)

[www.iacr.info](http://www.iacr.info)

[www.hse.ie](http://www.hse.ie)

[www.bhf.org.uk](http://www.bhf.org.uk)

[www.heart.org](http://www.heart.org)

### Other Irish Heart Foundation publications:

Step by step through stroke

Step by step through heart surgery

Step by step through heart attack

Step by step through inherited heart disease

Step by step through heart failure

Step by step through angina

AF and you, information for people living with atrial fibrillation

Step by step through cardiac catheterization and angioplasty

Manage your stress

All about your heart and stroke

Time to cut down on salt

Manage your blood pressure

A healthy cholesterol

Healthy eating

Be active

Quit smoking

Lose weight

### Heart and Stroke Helpline:

Locall 1890 432 787

Monday to Friday 10am to 5pm

[www.irishheart.ie](http://www.irishheart.ie)



**IRISH HEART  
FOUNDATION**  
Fighting Heart Disease & Stroke



IRISH ASSOCIATION OF CARDIAC REHABILITATION  
[www.iacr.info](http://www.iacr.info)

Irish Heart Foundation,  
50 Ringsend Road,  
Dublin 4

**T:** +353 1 668 5001

**F:** +353 1 668 5896

**Email:** [info@irishheart.ie](mailto:info@irishheart.ie)

**Heart and Stroke Helpline:**

Locall 1890 432 787

Monday to Friday 10am to 5pm

**Web:**

[www.irishheart.ie](http://www.irishheart.ie)

[www.stroke.ie](http://www.stroke.ie)

Registered Charity  
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The information provided in this booklet was correct and accurate at the time of publication to the best of the Irish Heart Foundation's knowledge.