



HEART SERIES HI

LIVING WITH ANGINA





Chest, Heart & Stroke Scotland, is an independent medical charity which aims to improve the quality of life for people in Scotland affected by chest, heart and stroke illnesses, through medical research, advice and information and support in the community.

FUNDRAISING

CHSS is an independent Scottish medical charity. We receive no Government funding and rely entirely on the Scottish public to raise the £5 million a year we need to help people with chest, heart and stroke illness throughout Scotland.

RESEARCH

We are one of Scotland's largest charitable funders of medical research, with a programme worth over £600,000 a year. We fund research projects throughout Scotland into all aspects of the prevention, diagnosis, treatment and social impact of chest, heart and stroke illness.

PERSONAL SUPPORT GRANTS

We provide small grants to people in financial difficulty because of chest, heart or stroke illness, for items ranging from disability equipment and household goods to respite care and holidays. Applications are submitted through local Social Work Departments, or health professionals.

VOLUNTEER STROKE SERVICE (VSS)

We give support to people whose communication skills are impaired after a stroke. The VSS provides weekly group meetings and home visits for patients.

CHSS NURSES

Our nurses provide independent practical advice and support to those who have chest, heart and stroke illnesses, their families, carers and health professionals. There are dedicated nursing services in Fife, Grampian, Highland, Lanarkshire, Lothian and Dumfries and Galloway. There is also a Scotland wide nurse led Advice Line (0845) 077 6000. Calls are charged at a local call rate (out of hours answerphone). We have a wide range of booklets, factsheets and videos on chest, heart and stroke illnesses.

COMMUNITY SUPPORT NETWORK

CHSS provides support to affiliated chest, heart and stroke clubs through the Community Support Network. The clubs are independent and are run by local volunteers. The groups provide a range of activities and offer people support, stimulation and companionship in a friendly and relaxed environment. Please ask for more information.

FOR FURTHER INFORMATION ABOUT ANY OF THE SERVICES ABOVE PLEASE CONTACT HEAD OFFICE BY PHONING 0131 225 6963 OR VISIT THE CHSS WEBSITE: www.chss.org.uk

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LIVING WITH ANGINA

SECTION 1: UNDERSTANDING ANGINA

Who is this booklet for?

This booklet is designed to meet the needs of people who have been told that they have a heart condition called angina. However, it cannot possibly deal with every individual's experience. Therefore it concentrates on the common issues that affect people living with angina.

What does angina feel like?

Angina is typically felt as discomfort in the middle of the chest that can be brought on by effort, exercise or strong feelings, and goes away with rest.

It may start off as a dull pain or ache. It has been described as heaviness, burning, tightness, constriction or squeezing sensation, a heavy weight or pressure. Angina can also cause breathlessness, more than you would expect with exercise or even when resting. In some people angina can feel very similar to indigestion or heartburn.

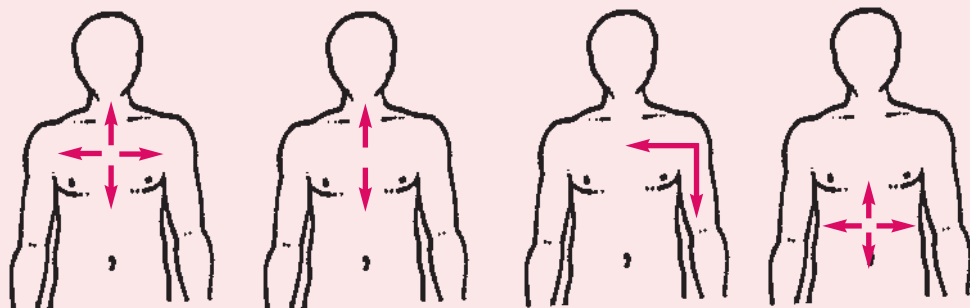


Diagram of spread of angina

Angina pain may spread to the throat or neck, to the jaw, to the shoulders, to the left or right arm or both (going down the inside of the arms) and sometimes to the back or stomach.

Occasionally, angina pain occurs in one of these places without chest pain, for example, pain in the arm, which is relieved by resting.

What is angina?

Angina is a symptom of a problem, not an illness in itself. It is the heart complaining that it is not getting sufficient oxygen during exertion or stress. This **temporary** shortage of oxygen to the heart muscle does not result in permanent damage to your heart.

It usually passes when you stop the activity that brought it on or after taking GTN tablets or spray (medication to relieve the pain of angina).

This is called **stable** angina. Many people come to recognise how much activity will bring on their angina.

What is unstable angina?

Unstable angina is when angina attacks occur more frequently, with less and less activity. Attacks may even occur at rest or wake you from sleep and may last for up to 10 minutes. This may be an indication of a worsening condition and you should see your doctor urgently. It is likely that you will be admitted to hospital or referred to a rapid Access Chest Pain Clinic for re-assessment. If your GP cannot see you within 24 – 48 hours and these attacks are coming on more frequently and are not readily relieved by GTN spray then you should call NHS24 and ask for advice.

Angina is not a sign that the heart has worn out or packed up.

What is a heart attack?

A heart attack is often associated with chest pain, but there is a big difference between angina and a heart attack.

A heart attack happens when a narrowed artery becomes blocked by a blood clot.

This prevents **any** blood from getting to the part of the heart the artery was supplying.

The chest pain is more severe than angina and lasts longer, usually for at least 10 minutes but it can continue for up to 12 hours.

It does not get better by resting or by using your GTN spray or tablets.

Central chest pain can spread to the jaw, neck, shoulders, down one or both arms and into upper abdomen as in angina.

In addition you may become grey/pale, feel you are in a cold sweat, feel sick and dizzy or light headed and feel anxious / a sense of impending doom.

It is an emergency situation where getting help quickly is vital.

Phone 999 if you suspect this is happening to you.

What causes angina?

Like any other muscle, the heart requires its own blood supply to provide the oxygen and nutrients it needs.

It gets this supply through the three main coronary arteries: the right and left coronary arteries and the circumflex artery.

In some people, a fatty deposit builds up in the lining of the arteries throughout the body, over a number of years. This deposit narrows the artery and eventually reduces the amount of blood that can get through.

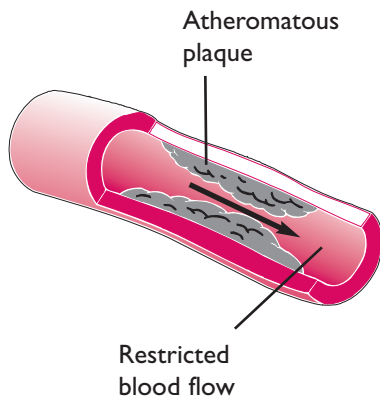
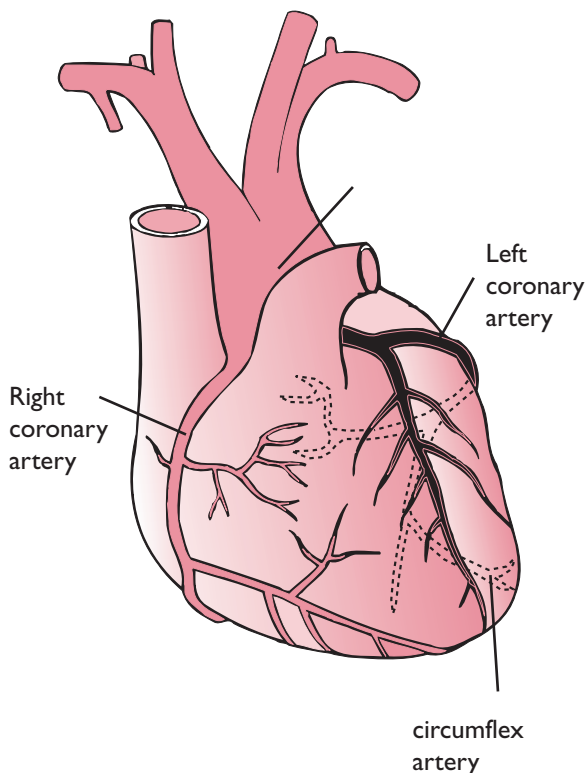
This deposit is called ‘atheroma’.
The process is called ‘atherosclerosis’.

When this build up of atheroma affects the coronary arteries it is called ‘coronary artery disease’ or ‘coronary heart disease’ (CHD for short).

Severity of symptoms

Severe symptoms do not necessarily relate to severity of disease.

How narrowed arteries will affect you, depends on the position of the artery and how severe the narrowing is, accounting for the wide range of symptoms from person to person.



When we make demands on the heart by increasing the heart rate during physical activity or when we are upset or angry, the narrowed arteries cannot supply the heart muscle with oxygen quickly enough and pain develops. This is the heart's way of telling us that we need to take a rest.

What causes coronary heart disease?

Sometimes there are areas in your life that are known to increase the risk of developing or worsening coronary heart disease. Sometimes a person suffers other conditions which can make angina more likely to happen.

Reducing your risk factors can also reduce the chances of having a heart attack in the future.

- high blood pressure
- high cholesterol level
- diabetes mellitus
- smoking cigarettes (or cigars regularly)
- not getting enough exercise
- being overweight
- drinking too much alcohol
- unhealthy diet

These risk factors have all been proven to contribute to coronary heart disease. The more risks you have the more your risk of developing coronary heart disease, as the risks don't just add, they multiply.

More detailed information about risk factors is in the section; What can I do to help myself?

What if I don't have these risk factors?

You may be one of the people who does not have any of these risk factors who still develops heart disease. This is because there are other factors that may be genetic and passed on through families that may increase the likelihood of you developing CHD. If a close member of your family has been affected by coronary heart disease then you should do everything possible to improve your health, avoid the known risk factors and prevent it from getting worse.

What else can cause angina?

There are some circumstances where angina pain develops without coronary heart disease.

- disease of the aortic valve
- high blood pressure
- disease of the heart muscle
- severe anaemia
- irregular heart beats
- symptoms with an unknown cause

This is why the doctor has to ask so many questions and do some basic tests to establish what is causing your angina.



What else can cause chest pain?

Nobody should have chest pain that is unexplained.

Do not ignore the pain but ask your doctor's advice.

It does not necessarily mean that you have coronary heart disease.



It could be:

- Joint or muscle pain: this is often worse when someone is changing position or presses on the ribs or breastbone.
- Lung disorders: this pain is worse on breathing in.
- Stomach problems: indigestion after a meal or acid reflux on bending over.
- Gall bladder problems: colicky pain after a fatty meal may suggest gallstones.
- Stress, anxiety and panic attacks.

Diagnosis

An assessment of your overall situation is necessary. This is done either in a Rapid Access Chest Pain Clinic (RACPC) or by your GP if the necessary tests are available.

This is achieved by:

- Asking questions about what brings on the pain and what relieves it and ruling out other possible causes of pain.
- Checking for any risk factors that may be contributing to your angina.
- Measuring your weight and blood pressure.
- Taking blood: to check your haemoglobin for anaemia, your blood glucose for diabetes and your cholesterol level.
- Taking an ECG (electrocardiogram), which gives a record of the electrical activity of the heart when you are at rest.



SECTION 2: UNDERSTANDING DIAGNOSIS AND TREATMENT

Tests and Investigations

Will I need further tests?

There are some circumstances when further tests or investigations are necessary, for example if:

- your doctor needs more information
- you have not responded to medication
- you do not have typical symptoms
- you might benefit from heart surgery.



Exercise ECG

Also known as a treadmill test or an exercise test.

This is not a way of measuring how fit you are. An ECG records the activity of your heart as you make demands on it by walking on a treadmill. Medical staff will supervise you throughout. It is used to help diagnose coronary artery disease and assess its severity.

Echocardiography

Known as an 'echo' this is an ultrasound scan of the heart. It is

the same process as is used to look at a baby in the womb.

Sound waves are bounced off the heart and recorded by a computer, which makes a visual picture on the screen showing the structure of the heart. The speed and direction of blood flow within the heart can also be looked at during this procedure.

Angiography

It is also known as cardiac catheterisation.

It is an x-ray examination of the coronary arteries.

Under local anaesthetic a catheter (thin tube) is inserted into a main artery in the wrist, arm or groin and then passed gently through the blood vessels until it reaches the heart.

When it reaches the coronary arteries a dye is injected and x-ray pictures are taken.

These show up any narrowing in the arteries and give a lot of information to the cardiologist.

Magnetic Resonance Imaging (MRI)

It uses a magnetic field to take images of the heart and blood vessels in fine detail.

Thallium Scan (Myocardial perfusion scintigraphy)

It is helpful in people who are not suitable for an exercise ECG.

A tiny amount of radioactive material is injected into the blood stream.

A special camera is able to show the heart muscle working and assess the extent of the problems resulting from narrowed arteries.

Further explanation will be given to you prior to having these tests but don't be afraid to ask questions

Understanding treatment of angina

The main aims of treatment

- To control symptoms of angina
- To maintain as high a level of activity as possible
- To improve quality of life
- To prevent worsening of the narrowed coronary arteries.

Treatment approaches include:

- making positive changes to your lifestyle for life
- taking medicines for your heart – drug treatment
- percutaneous coronary intervention PCI (angioplasty and stenting)
- by-pass heart surgery.



Drug treatment of angina

If you have angina frequently it is likely that you will need two or more drugs to relieve the pain, to prevent the pains from developing and to protect you from serious events such as heart attacks. You need to take your drugs every day as prescribed. There are several groups of drugs useful in preventing angina and your doctor will try and find the most effective combination for you.

It is known that having to take several different drugs regularly can be difficult for some people to deal with. Try and remember that your doctor is trying to keep you well and pain free, and is following proven evidence.

- Nearly everyone will need some form of GTN to relieve pain when it occurs.
- Everyone will need anti-platelet therapy e.g. aspirin.
- Regular treatment with drugs that will lessen the work load of the heart and help to prevent angina from coming on may help.
- Treatment for high blood pressure and high cholesterol may require drug treatment also.

Antiplatelets

Antiplatelets interfere with the normal clotting mechanism in the blood to make it less likely to form clots, reducing the risk of heart attack or stroke. Everyone with coronary artery disease should be prescribed one, usually aspirin.

Aspirin occasionally upsets the stomach causing indigestion. This may be avoided by taking your tablet with or after meals but speak to your doctor if you continue to suffer. In the event of true aspirin intolerance or allergy, clopidogrel 75mg daily can be considered as an alternative for some people. Dipyridamole is also an antiplatelet, more commonly associated with heart valve problems.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|--------------|-------------------------|-----------------------|--|--|
| Aspirin | Nu-seals Caprin | Indigestion | Can cause irritation to the stomach. | Do not take additional medicines containing aspirin whilst on these drugs. Report black bowel motions to your doctor immediately, as this may indicate bleeding from gut. |
| Dipyridamole | Persantin | | Dizziness, headaches, nausea, muscle pains. | |
| Clopidogrel | Plavix | | Dizziness/ pins and needles/ nausea/ constipation/ upset stomach/ itching/ skin rashes | |

Beta-blockers

Beta-blockers are used to treat high blood pressure and angina.

Beta-blockers reduce the work the heart has to do by slowing down the heart rate and lowering the blood pressure. In angina this makes them effective in reducing the number of angina attacks as well as allowing the person to be more active.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|---|---|---|---|--|
| Atenolol Acebutolol Bisoprolol Carvedilol Celiprolol Labetalol Metoprolol Nadalol Nebivolol Oxprenolol Pindolol Propranolol Timolol | Nu-seals CaprinTenormin Sectral Monocor Eucardic Celectol Trandate Betaloc or Lopressor Corgard Nebilet Trasicor Visken Inderal Betim | Fatigue/general tiredness or sleep problems/cold hands and feet/ lowered sex drive / impotence/ | Depression/ dizziness/ skin rashes/ digestive tract problems/ dry eyes. | Usually avoided in people with asthma and chest problems. Also used to treat high blood pressure. Certain cough and cold remedies and appetite suppressants can increase your BP if taken with a beta blocker. |

Statins – Cholesterol lowering drugs

Your doctor may also ask you to take tablets to lower your cholesterol, called statins. Even if your cholesterol is not especially high your doctor may prescribe tablets as a preventative measure. Frequent stomach pains or muscle pains should be reported to your doctor when taking statins. You will also have to make changes to your diet to lower your cholesterol most effectively.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|---|---|--|---|---|
| Statins Atorvastatin Fluvastatin Pravastatin Rosuvastatin Simvastatin | Lipitor Lescol Lipostat Crestor Zocor | Headaches/ tiredness/ nausea/ tummy upsets/ pins and needles. | Muscle pain/ tenderness or weakness/ jaundice (yellow eyes and skin) | Report rare side effects immediately. Not recommended if pregnant or breastfeeding or have active liver disease. Avoid large amounts of grapefruit juice Simvastatin is usually taken at night |

ACE inhibitors

These help to relax the arteries lowering blood pressure and reducing the work the heart has to do.

They are used to treat high blood pressure as well as other heart problems, particularly when there has been some damage to the heart muscle e.g. from a heart attack. They are also known to act preventatively in reducing the risk of heart attacks and stroke in people who have coronary heart disease.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|--------------|-------------------------|--|---|---|
| Captopril | Capoten | Dizziness/light headedness/ persistentdry cough/loss of taste. | Kidney or liver problems/ acute allergy/ rash/ a type of swelling called angioedema/ inflammation of pancreas/ sinusitis/ digestive tract problems/ blood cell changes. | Particularly useful if you have heart failure or diabetes. Blood tests may be required when taking these drugs. Can not be used in pregnancy. |
| Cilazapril | Vascace | | | |
| Enalapril | Innovace | | | |
| Fosinopril | Staril | | | |
| Lisinpril | Carace or Zestril | | | |
| Moexipril | Perdix | | | |
| Perindopril | Coversyl | | | |
| Quinapril | Accupro | | | |
| Ramipril | Tritace | | | |
| Trandalopril | Gopten | | | |

ARB's Angiotensin Receptor Blockers

These are mainly used in angina when ACE inhibitors are not suitable. They act in much the same way as ACE inhibitors and may be used in combination with ACE inhibitors where there has been some previous damage to the heart muscle e.g. after a heart attack.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|---|--|---|--|--|
| Candesartan Eprosartan Irbesartan Losartan Olmesatan Telemisartan Valsartan | Amias Teveten Aprovel Cozaar Olmotec Micardis Diovan | Dizziness/ light headedness/ cough/ sore throat/ headache/ cystitis (urine infections)/ aches and pains/stuffy nose/ tiredness or weakness | Severe joint or muscle pain/chest pain/ leg cramps/ fast or slow pulse/digestive tract problems/ taste problems/dry mouth/mood changes/liver or kidney problems/anaemia. | A good alternative to an ACE inhibitor if ACE is causing a troublesome cough Avoid salt substitutes Alcohol in moderation only Can not be used in pregnancy |

Nitrates

Nitrates open up the arteries by relaxing the muscle in the artery wall causing the blood vessels to dilate. This reduces the work the heart muscle has to do. Nitrates are used to treat angina and heart failure.

All of the nitrates (glyceryl trinitrate (GTN), isosorbide dinitrate, and isosorbide mononitrate) are available as long-acting preparations. A long acting preparation takes longer to start working, so is not much use for immediate pain relief. But, it works for much longer after each dose than a short acting preparation (which loses its effect after 20 minutes or so). Some preparations are 'slow release' or 'modified release' tablets. When you swallow these they gradually release a steady amount of nitrate which is absorbed into the body. Some preparations come as skin patches or ointments which release a steady amount of nitrate into the bloodstream through the skin.

GTN

GTN is used to relieve angina pain actively when it happens. It is absorbed in the mouth, under the tongue (sublingual) making it effective in 1 – 2 mins with the effect lasting 20 – 30 mins.

It can be used in tablet or spray form, whichever you prefer.

More information about using GTN effectively to help you cope with angina is in the Living with angina section of this booklet.

Nitrate Tablets

Nitrates are used in slow release/ modified release form to prevent angina attacks and improve your ability to take exercise.

Nitrates should be taken at the times prescribed for them to work effectively.

Isosorbide Mononitrate is usually taken once a day.

Isosorbide Dinitrate is usually taken at 12 hourly intervals (twice a day).



If nitrate stays in your bloodstream all the time, your body becomes used to it and the nitrate then has much less of an effect. To overcome this ‘tolerance’ you will be prescribed medication so that your blood stream will be free of nitrate for a few hours each day.

Isosorbide dinitrate can also be used to relieve pain during an attack in different forms.

Nitrate Patches

With nitrate patches the medicine is absorbed through the skin by direct contact. Patches should be applied to the chest or back and not directly over the heart.

Only one patch should be used a day, **which should be removed at night** unless specifically being used to combat night time angina.

Apply the patch to a different area of skin every time.

Do not apply the patch to inflamed or cracked skin (the medicine can be absorbed too rapidly).

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|-------------------------------------|-------------------------|--|------------------------|--|
| Glyceryl Trinitrate (spray/tablets) | GTN | Headache, flushing, dizziness, nausea. | | Headache particularly on first taking. |
| Isosorbide Dinitrate | Isoket, Angitak | | | Flushing eases as dose increases slowly. |
| Isosorbide Mononitrate | Imdur, Elantan | | | Avoid taking Viagra with nitrates. |
| Nitrate patches | Transiderm | | | |

Calcium channel blockers

These help to relax the arteries lowering blood pressure and reducing the work the heart has to do. In angina this makes them effective in reducing the number of angina attacks as well as allowing the person to be more active.

Sometimes calcium channel blockers, for example Diltiazem, are used in combination with beta-blockers to control angina.

Sometimes they are used for people who are not able to take beta-blockers. For example Verapamil is used in place of a beta-blocker when the person has severe COPD (chronic obstructive airways disease) or asthma. They tend to be less effective if you smoke.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|---|--|--|--|--|
| Amlodipine Felodipine Isradapine Lacidipine Lercanidapine Nicardipine Nifedipine Nisoldipine | Istin Plendil Prescal Motens Zanidip Cardene Adalat Syscor MR | Nausea/ dizziness/light headedness/ headaches/ hot flushes/ ankle swelling/ constipation | Rash/ palpitations/ tiredness | Calcium-channel blockers are also used to treat high blood pressure. Avoid grapefruit juice (except Amlodipine and Diltiazem) |
| Verapamil Diltiazem | Cordilox or Securon Tildiem Adizem | | Used with caution when combined with Beta-Blockers | Verapamil and Diltiazem also lower the heart rate and can be used as a substitute for Beta-Blockers (e.g. when COPD/asthma present) |

Potassium Channel Activators

These work partly like a nitrate and partly like a calcium channel blocker.

They tend to be used in combination with other drugs. They may be helpful when angina is not well controlled by other drugs.

| Generic name | Examples of brand names | Possible side effects | Some rare side effects | Other information |
|--------------|-------------------------|------------------------------|------------------------------------|-------------------|
| Nicorandil | Ikorel | Flushing/dizziness/ headache | Mouth ulcers/ muscle pains/ nausea | |

How will the doctor find the right drugs for me?

Different groups of drugs work differently and also have different side effects. It is a case of finding the most effective ones for you with the fewest side effects. You may need to take a combination of drugs as this is often most effective.

If your angina is not being controlled with drug therapy, it is likely that your doctor will refer you to a cardiologist.

Remember it is very important to take your heart medicines in the doses and at the times prescribed. Speak to your doctor or phone NHS 24 for advice if a dose is missed or repeated.

Interventions and surgery to treat angina

It should be remembered that the purpose of the following interventions is to relieve the symptoms of angina. They will not cure angina or the cause of it. **So it is important to remember that drug treatment and working on reducing risk factors will still be necessary to prevent symptoms recurring.**

Percutaneous Coronary Intervention (PCI)

PCI involves stretching narrowed areas of coronary arteries to improve the blood flow. It is performed in a similar way to an angiogram, (cardiac catheterisation) then stretching the narrowed coronary artery with a tiny balloon which is at the tip of the catheter. In the majority of cases a metal stent will also be placed in the artery (angioplasty and stent). A stent is a cylinder of metal mesh which acts like a scaffold to keep the artery open and prevents the narrowing coming back. The artery heals around the stent making it a permanent part of the artery.

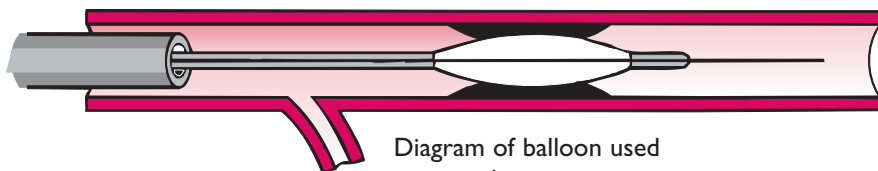


Diagram of balloon used in angioplasty

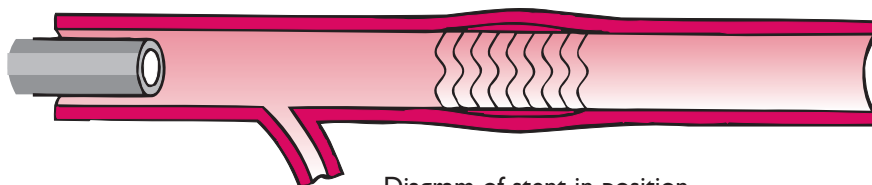


Diagram of stent in position

You will not be aware that it is there. Sometimes stents can be used which slowly release drugs directly to the narrowed area to help prevent the problem recurring. These are called Drug Eluting Stents (DES) and are only considered for use in certain cases e.g. sometimes people with diabetes.

Surgery to treat angina

Coronary Artery Bypass Graft

This is what is commonly referred to as a 'Bypass'. Not everyone with angina will be suitable for surgery. Your cardiologist will discuss the options with you if it is felt that you would benefit. You will have the chance to ask questions and decide whether or not you want to proceed.

Bypass surgery can be performed on more than one narrowed coronary artery hence 'double' and 'triple' bypass surgery.

The surgeon literally bypasses the affected artery by using a blood vessel taken from the leg or chest, to provide a new route for the blood supply to the heart.

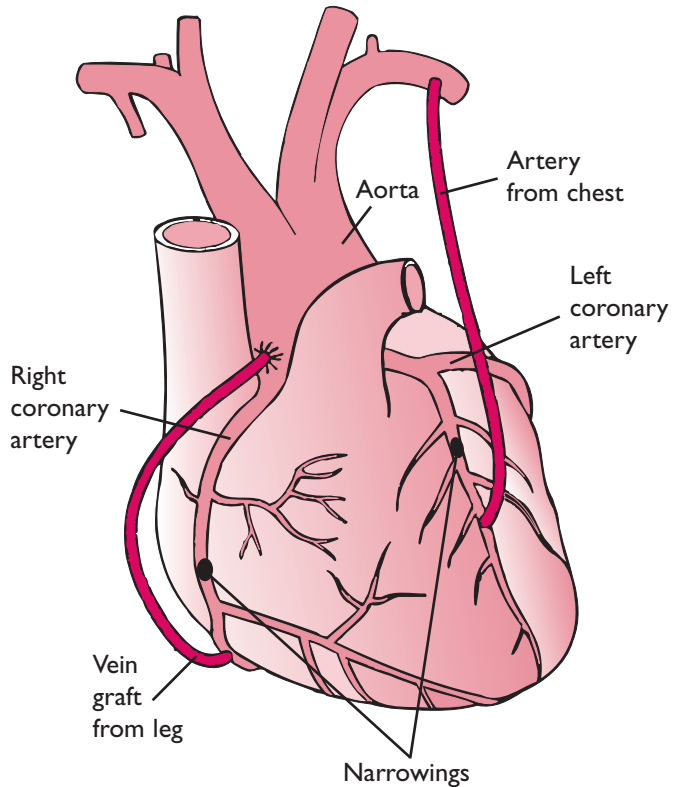
It involves opening the chest and having a heart-lung machine take over the circulation while the heart is stopped during the operation.

The majority of people have no angina after this operation and are able to take up a good level of activity and be free from pain. For others, there may still be some angina and tiredness. This is because the bypass will reduce the risk of heart attack and reduce angina but some smaller arteries may remain narrowed. In this case drug treatment will still be vital to get the best quality of life possible.

Keyhole bypass surgery

This name refers to a bypass operation that can be done without the need to open the breastbone or stop the heart. Access to the heart is obtained through the ribs while the heart is still beating.

There are a small number of surgeons who are doing this procedure and it is only suitable for a small number of people.



You can help yourself by making changes to your life in areas that are known to increase the risk of developing or worsening coronary heart disease.

Many of these are so-called lifestyle changes and should ideally involve the whole family, helping everyone to have healthier hearts in the future.

Knowing and controlling your cholesterol, blood pressure and diabetes are areas where you and your doctor can work together to achieve results.

Stopping smoking is the main thing you can do to help yourself.

Keeping active, watching what you eat and drink and not being overweight are all positive steps towards a healthy heart.

SECTION 3: WHAT CAN I DO TO HELP MYSELF?



Control and monitor cholesterol

Cholesterol is a fatty substance (lipid), which is essential to healthy life.

It is transported around the body to where it is needed by substances called lipoproteins.

Cholesterol is removed by the body in the form of waste bile salts and is excreted in bowel movements.

LDL (low density lipoprotein) carries the most cholesterol and is considered 'bad cholesterol' when levels are high. HDL (high density lipoprotein) is the 'good cholesterol' because it carries surplus cholesterol away.

Measuring the amounts of these lipoproteins gives an indicator of how much fat is being carried in the bloodstream that might be harmful, for example causing the fatty build up in the walls of your blood vessels as atheroma. When there are other risk factors such as smoking, high blood pressure or diabetes then a high LDL cholesterol level will multiply the overall risk of heart disease or stroke.

Cholesterol is manufactured mainly in the liver but LDL cholesterol is also present in saturated fats found in meat and dairy products and many processed food. If your cholesterol is found to be high you will need to try and reduce the fat in your diet. However, many people will also need to take drugs called statins to lower the amount of cholesterol made by the body to achieve the level required as quickly as possible. Usually, these have to be taken for life, as the body reverts back to overproducing cholesterol when they are stopped.

Many people who have angina are found to have raised cholesterol levels.

Some people have a constantly higher concentration of cholesterol in their blood stream because the cholesterol is not cleared properly from the blood stream. This problem often runs in families and is called familial hyperlipidaemia or familial hypercholesterolaemia.

For people who already have heart disease, have had a stroke or have diabetes, lowering the cholesterol as much as possible, even when it is not particularly high, with a healthy diet, exercise and cholesterol lowering drugs can help to prevent further problems.

Along with lifestyle changes and blood pressure control the total cholesterol should be reduced to at least below 4.5 and by at least one quarter (25%) from the baseline cholesterol level.

How to reduce your cholesterol level

- Reduce your total fat.
- Replace saturated fat with poly- and mono-unsaturated fat this means replacing fat from animals in meat, dairy produce and processed foods with oils and fish.
- Increase your fruit and vegetables to at least five portions a day.
- If overweight try and reduce to your recommended level.

More detailed advice is available in the CHSS factsheet ‘Cholesterol.’



Control and monitor high blood pressure

Uncontrolled high blood pressure is an important risk factor in coronary heart disease, heart attacks and stroke.



Over the years high blood pressure slowly damages the blood vessels making them narrower and less flexible, so that the heart has to work harder to push blood through them. If the blood pressure remains high the heart is put under unnecessary strain and in time this will cause damage. Damage to the blood vessels makes it easier for clots to form and for fatty debris to build up and block blood vessels.

Up to 140/90mmHg is considered to be the 'normal' range. Readings above this level may need to be treated with drugs, though some life style changes can also bring a reduction. There are many different groups of drugs that can be used to treat high blood pressure such as diuretics and beta-blockers. Your doctor may have to try several different drugs or use a combination of drugs to find the most effective treatment for you. Sometimes people experience side effects from drugs and it is important to let your doctor know if you are having any problems as there is usually solution.

Lifestyle changes that can help lower high blood pressure are almost the same as those for improving / preventing coronary heart disease.

You can help to control your blood pressure by:

- Making sure you take your tablets as prescribed.
- Having your blood pressure checked regularly.
- Stopping smoking – nicotine raises your blood pressure.
- Reducing your salt intake – too much salt in the diet is responsible for affecting the way your kidneys regulate blood pressure. Reducing your salt intake as well as other measures will contribute to lowering your blood pressure.
- Keeping your weight down – losing weight will help to lower your blood pressure. In people younger than 40 being overweight is often the main cause of high blood pressure.
- Taking regular exercise – by exercising regularly you can bring your blood pressure down sometimes by as much as many blood pressure lowering drugs.
- Limiting your alcohol intake – alcohol in excess of the amount your body can easily tolerate can cause high blood pressure. If you are drinking heavily on a regular basis this will put up your blood pressure and increase your weight. Binge drinking at any age can cause a temporary but significant rise in blood pressure. Stick to the recommended levels.

More detailed advice is available in a CHSS booklet called ‘Living With High Blood Pressure.’

Control and monitor diabetes

Diabetes is a disorder caused by the lack of insulin which disturbs the body's ability to store or use glucose (the source of energy that comes from carbohydrates and sugars).

There are two types of diabetes Type 1 (insulin dependent) and Type 2 (non insulin dependent also known as maturity onset diabetes). Type 1 usually affects younger people whereas Type 2 tends to develop gradually after the age of 40 and is much more common.

About 2.3 million people in the UK have been diagnosed with having diabetes and it is estimated that there are another 1 million people who have the disease but are not aware of it. Many people find out they have diabetes when they are being tested for something else.

How is diabetes linked with heart disease?

Diabetes is one of the major risk factors for heart disease and stroke.

People who have diabetes are between 2 and 5 times more likely to develop heart disease and stroke than people who do not.

Uncontrolled diabetes contributes to damage to the blood vessels and the build up of fatty deposits in the arteries called atheroma.

People who have Type 2 diabetes are also more likely to have a high LDL cholesterol levels another risk factor for heart disease and stroke.

People who have Type 2 diabetes are also more likely to have high blood pressure another risk factor for heart disease and stroke.

In Type 1 diabetes the symptoms develop quickly over a period of weeks, but Type 2 diabetes develops slowly over many years.

If you have been diagnosed with diabetes you can see how important the other risk factors for coronary heart disease are for you. People with diabetes are usually advised to have lower than the recommended levels of blood pressure and cholesterol.

What you can do to help your diabetes

- Monitor and control diabetes by checking blood glucose levels testing your urine and attending the doctor or clinic regularly.
- It is very important to look after your feet as your blood circulation can be affected by diabetes. Attend any chiropody clinic appointments arranged. Check your feet and toenails every time you bathe or shower. Report any cuts or problems to your chiropodist or nurse as soon as possible.
- An annual review of your glucose control, blood pressure, cholesterol, weight, general circulation and signs of the complications of diabetes, such as eye, nerve, kidney and cardiovascular disease, should be done. There may be a diabetic health visitor in your area who will help to monitor your condition and give you support and advice.



See F17 'Diabetes: the links with heart disease and stroke' for more detailed information.

Smoking

By far the most important thing you can do for yourself is to stop smoking. In coronary heart disease, risk factors do not just add up, they multiply, and smoking multiplies any and all other risks you may have.

Effects of smoking on coronary artery disease

- Smoking roughens the lining of the blood vessels encouraging atheroma to form.
- Smoking makes your blood stickier. This increases the chance of clots forming that can cause heart attacks and stroke.
- Smoking increases blood pressure and speeds up your heart.



Where to go to get help?

The first point of contact when you are considering stopping smoking should be your GP or practice nurse. Smoking cessation classes or one to one support could be available within the practice and you can discuss Nicotine Replacement Therapy (NRT). Your local chemist can also give you advice.

Contact Smokeline (the smoking cessation helpline) for telephone support and information. Smokeline: 0800 84 84 84.

How can I break the habit?

First you must make your own plan about how and when you are going to give up. Set a date and work towards this date. In the meantime

you should try and work out if you are actually addicted to the nicotine in the cigarettes. If you are physically addicted you will smoke to maintain a certain level of nicotine on your blood. Your cravings will happen regularly every 20 – 45 minutes if you have a real addiction to nicotine. How regularly you smoke is more important than how many you smoke.

Nicotine Replacement Therapy (NRT)

The more frequently you smoke, the more you are likely to need the help of Nicotine Replacement Therapy (NRT) to stop. It comes in a variety of different products and in various strengths e.g. patches, gum. Before using NRT, it is important to speak to your doctor. It also needs to be used according to the instructions to get the most benefit. However very few smokers are just physically addicted to nicotine.

Zyban and Champix

Zyban and Champix are drugs that have been developed to help with smoking cessation. They are only available on prescription and treatment has to be monitored closely by your GP. They have been found to be effective although they may have side effects and not be suitable for everyone.

You can do it!

Stopping smoking is a complex and difficult thing to do.

Apart from the addiction to nicotine there are all sorts of other reasons why people smoke even though they know it is doing them harm. However, by making the decision to stop, seeking professional help and support you can do it.

**Support +
Medication = 4
times more
likely to quit!**

Keep Physically Active

The heart is a muscle and it needs to be exercised to keep it strong. When you are sitting still it hardly has to work at all.

The less you do the less you become able to do.

The more unfit you become the more your angina can affect you and this can make you more anxious about activity bringing angina on.

In most cases individuals are advised to exercise regularly, within the limitations of their angina.

This does not mean that you should try and work through pain and or breathlessness. You should never be so out of breath that you can't carry out a conversation. You should stop if you feel pain / severe breathlessness and use your GTN spray / tablets if necessary.

If you are unsure about how much exercise you can manage, or have unstable angina, it would be best to speak to your doctor about what you can do. A gentle amount of activity may well be appropriate.

The benefits of regular exercise for angina:

- It increases exercise capacity – enables you to do more.
- Strengthens your heart.
- Reduces the frequency and severity of angina.
- Reduces anxiety and depression.
- Reduces tension, encourages relaxation and sleep.
- Gives you a sense of well being and confidence.
- Helps to control cholesterol.
- Helps you to lose weight.
- Helps to lower high blood pressure.
- Keeps you supple and more mobile.
- Strengthens muscles, joints and bones.

**Choosing your exercise**

- Choose an exercise that keeps you moving and makes you breathe in more air (dynamic and aerobic exercise) e.g. swimming, walking, cycling, dancing or similar.
- Chose an activity near to home.
- Do some form of activity every day as part of your routine.

Tips on exercising

- Spend five to ten minutes warming up gently, ready to exercise.
- Spend five to ten minutes cooling down after exercise.
- You are aiming to gradually increase what you do in small stages.
- Remember it is not a competition.
- Remember that you are in control.
- Avoid rushing and holding your breath.

What exercise to avoid

If you are unsure about what to do, discuss it with your doctor first.



- Avoid any exercise that involves staying in the same place and straining to lift or move something (static exercise) such as heavy weight lifting. This strains your heart and increases your blood pressure.
- Vigorous competitive sports; rugby, football, squash are not recommended.
- Skiing is also not recommended due to the combination of high altitude, physical effort, cold air and emotional factors.
- Swimming is normally suitable exercise if you have stable angina. However you should not dive into freezing cold water and should enter the water within your depth. Heated pools are obviously preferable.

More information about keeping active in the Living with Angina section.

Eating a healthy varied diet

The general healthy eating message is to eat a variety of high fibre, low fat foods, with saturated fat replaced by unsaturated oils and five portions of fruit and vegetables per day.

However there are recommended key changes in current eating patterns, which have been proven to be of benefit in reducing the risk of coronary heart disease. Some changes apply particularly to those with other contributing factors such as high blood pressure and high cholesterol levels. This is often described as 'Mediterranean' diet.

Increase fruit and vegetables

Aiming for a minimum of five portions of fruit and vegetables a day, to include a variety of vegetables, fruit, salads and fruit juice will help to provide fibre and antioxidant vitamins A and C and E.

Increase omega-3 fats

Found in oily fish such as mackerel, herring, sardines, trout, salmon and pilchards. Sardines, mackerel and salmon however are also available in cans. Canned fish is a popular choice but remember canned tuna does not contain the beneficial types of oil.

The body can also make omega-3 fats from rapeseed oil.

Reduce saturated fat

Reduce saturated fat in diet and replace with unsaturated fat such as oils and fish.



Making several small changes, and making them a habit, gets the best results:

- Choose low fat varieties of cheese such as cottage cheese. The harder the cheese the higher the fat content.
- Switch from full fat milk to semi-skimmed or skimmed milk.



- Switch to reduced fat or low fat spreads, preferably olive oil based.
- Choose low fat varieties of yoghurt and fromage frais.
- Use as little oil as possible when cooking. Oil now comes in spray cans, which will give you much less oil per serving.
- Replace meat with fish, such as mackerel, herring, sardines, trout, salmon or pilchards. Oily fish has been shown to contain oil that helps prevent heart disease. It is recommended to eat oily fish two to three times per week.
- Buy lean meat. Trim all visible fat and skin from meat before cooking.
- Discard any fat that comes out of food during cooking and drain on kitchen paper towel.
- Grill or bake instead of frying or roasting in fat.
- Avoid pastry, cakes and biscuits, which are normally high in fat and sugar.

- Avoid processed meat products such as pies, pasties, sausage rolls, hamburgers and sausages.
- Replace snacks such as crisps, cakes and biscuits with vegetables, fruit or salads or low fat snacks.
- Check labels for hidden fats in processed foods and ready-made meals. Look out for less than *4g fat per 100g* on food labels.
- Food packaging can also be misleading. A product that claims to be 90% fat free is actually 10% fat which is quite high.
- Increase your carbohydrates – preferably wholemeal – i.e. pasta, cereals, rice, bread.



Increase soluble fibre

Soluble fibre found in oats for example can lower total cholesterol.

Reduce your salt intake

Too much sodium in the diet can contribute to high blood pressure which increases the risk of heart disease. Reducing your salt intake can achieve a small reduction in blood pressure. Replace salt with lemon, herbs and spices for flavour. In time your taste buds will adjust to the changes and come to dislike salty flavours.

How do I eat less salt?

- Do not add salt to your cooking or at the table.
- Look at processed food labels, even though they can be confusing. This salt is already in our food without our knowing:

0.1g of sodium in 100g is a small amount.

0.2-0.5 g of sodium in 100g is a lot.

- Avoid salted crisps, nuts, crackers or other salty snacks especially when socialising as they will also make you thirsty and encourage you to drink more alcohol.
- Look for products that declare themselves low salt or reduced salt.
- Be aware of other foods that **can** have unexpectedly high salt content such as cereals, mineral water and bread. Check the labels!

More detailed advice is available in the CHSS 'Salt' factsheet.

Summary of healthy eating

Eat more:

- fibre: wholemeal bread / pasta / rice
- fruit / vegetables / fruit juice / salad / beans
- fish: especially oily fish
- low fat alternatives for spreading and cooking
- replacing with oils such as olive, rapeseed and sunflower oil
- healthy options in take-away food and ready-made meals i.e. low fat and salt.

Eat less:

- saturated fat: animal fat / red meat / meat products
- dairy products: butter / cheese / lard
- salt
- processed foods.



Control your weight

Losing weight is not always easy and needs support and encouragement from health professionals and family alike. Better eating habits in the family may prevent problems for them in later life.

Being overweight increases the work the heart has to do, increases blood pressure, leads to abnormal fats in the body, is associated with diabetes, gall bladder disease and some cancers. Controlling your weight involves finding a balance between the food and drink you take in and the energy you use up.

- The most effective way to lose weight is to do it slowly. Aim for a weight loss of 0.5 – 1kg / 1 – 2lbs per week.
- If you lose weight too quickly you are far more likely to put it back on again.
- Plan your meals and write down everything you eat.
- Rethink your shopping and eating habits; avoid sugary foods that do not satisfy your hunger.
- Replace fat with foods that release their energy more easily such as pasta, rice and potatoes but remember not to use butter or cream based sauces to go with them!





- If you combine exercise with your diet you will lose weight more effectively.
- You are also more likely to be successful if you join a club or lose weight with other people. The following offer very sensible and safe diet plans.

Weightwatchers: 0845 345 1500
www.weightwatchers.co.uk

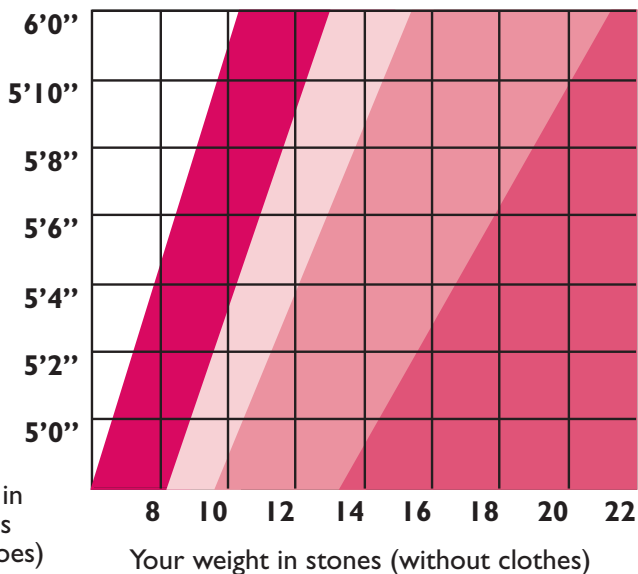
Scottish Slimmers: 0800 36 26 36
www.positive-eating.com

Rosemary Conley: 01509 620 222
www.rosemary-conley.co.uk

WEIGHT CHART

- You are underweight and could do with a few extra pounds
- This is the ideal weight for your height
- You are getting too fat so choose your food carefully
- You are obese and need to lose weight
- You are severely obese and must lose weight

Your height in feet & inches (without shoes)



Waist measurement

This method can also be used as an approximate guide to assess if you are overweight. These figures are a general indicator of a higher risk of health problems.

| | Waist measurement | | Category |
|-------|-------------------|----------------|------------|
| Men | 37 – 40 inches | 92.5 – 100 cms | Overweight |
| | >40 inches | >100 cms | Obese |
| Women | 32 – 35 inches | 80 – 87.5 cms | Overweight |
| | >35 inches | > 87.5 cms | Obese |

Control your alcohol intake

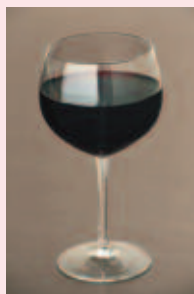
The recommended daily limit for people with coronary heart disease is:

Alcohol units:

Women: 14 per week / 2 units per day

Men: 21 per week / 3 units per day

One unit of alcohol is either:



One small
(125mls) glass
of wine

or



Half a pint of ordinary
(3.5%) strength beer
or lager (Beware:
strong beer will count
as more than one unit)

or



One single
(25mls)
measure of
spirits

Drinking heavily:

- increases your blood pressure.
- affects your cholesterol level.
- can make you gain weight.
- binge drinking is particularly harmful.

If you have a problem with the amount of alcohol you drink, speak to your doctor or contact Alcohol Focus Scotland (See useful addresses section).

Coping with stress

Many risk factors are related to the way we behave and live our lives.

Not dealing with stress, being unable to relax fully and overworking (this is different from working hard), all have an effect on the way we behave.

So it could be said that the way we behave in these circumstances increases our risk.

Recognising stress

Some people who have lived with a high level of stress over a long period of time are not really aware of being stressed or their inability to relax.

Keeping a diary of when you feel most stressed or upset can be a start to understanding how you personally cope with stress.

This will tell you what kind of situation makes you feel a certain way.

It is also helpful to try and think about how you actually reacted in these situations.

Did you feel yourself tense up, did your emotions get the better of you, did you do something to calm yourself down or make yourself feel better?

Did this involve having a cigarette, an alcoholic drink or eating rich fatty food?

Recognising a pattern to the way we behave can help us to look for other ways of coping with stress that are less harmful e.g. exercise, relaxation tapes and music. Learning to relax is

a skill that has to be learned and does not mean simply watching the television or just doing nothing.



Coping with stress also helps you to cope with pain and makes you feel less frustrated and irritable. This in turn will help you to cope better with your life and your angina.

Reviewing your life and priorities

Finding other, better ways of coping will not only reduce your risk but will help you to take control of these situations rather than them taking control of you.

Once you recognise your stress ‘triggers’ you can consciously try to relax in these situations: stretching tense muscles, breathing slowly, putting things into perspective.

At work, take jobs in order of importance and try to plan ahead.

However, it may also mean making difficult decisions about your future e.g. changing to a less stressful job.

See section on ‘Anxiety and panic attacks’ in the Living with Angina section of this book.

A big part of living with angina is the acceptance that life may never be exactly the same again. Apart from any changes you may have to make to the way you live, you have to accept that taking drugs is also going to be a part of your life.

Some people also have to deal with the fear that the angina may be something worse such as a heart attack or that they are going to die.

Instead of hoping that by doing nothing it will all go away, you have to find a way to accept that your life can still be very good. You will still be able to do a lot of things you enjoyed before, by using the drugs in the right way and following the advice to lower your risk factors.

This means taking control of your angina and not letting it control you.

SECTION 4: LIVING WITH ANGINA



Using your GTN

Some people think that if they have to use their tablets or spray a lot it means that they are worse; others think that by not using their spray it means they are better.

Neither of these ways of thinking is going to help you.

Explain to those around you about using your GTN.

This will alleviate their fear and also give you reassurance that you will get help if you need it.

Accepting the use of your GTN spray or tablets will give you much more freedom and take away fear of pain coming on.

If you use your GTN and it wasn't necessary, the worst thing likely to happen to you is a headache.

GTN can also be used prior to doing an activity that you might be afraid will bring angina on.

Summary of how to use your GTN

- Pain / breathlessness: sit down...deep breath...2 puffs...wait 5 minutes...if pain / breathlessness remains...2 puffs...wait 5 minutes...if still pain / breathlessness call GP / dial 999.
- There is no limit to the number of occasions you can take GTN. It is not addictive and your body will **not** become used to it with frequent use.

- It is a good idea to take GTN sitting down especially when experiencing angina as it can occasionally cause dizziness.
- If you suffer a severe headache when taking GTN, a tablet can be spat out and the headache should resolve.
- GTN tablets have a short shelf life and so need to be replaced every 8 weeks when open. The spray however has a two to three year shelf life.
- Use your GTN before doing an activity or even when you are in fear of an attack coming on.
- Learn to recognise fear and anxiety and how to deal with it.
- Use your GTN to allow you to enjoy your life.
- Use your GTN to control angina, don't let angina control you.

Remember angina is the brain telling you it is short of oxygen, not that the heart is not working properly

Anxiety and panic attacks

Some people become very anxious when they have been diagnosed as having angina. Anxiety or panic attacks are usually brought on by a tiny thought that goes through your mind sometimes without you even really recognising it. A fearful or negative thought triggers a rush of adrenaline that causes real physical symptoms as it increases the heart rate by as much as walking up a hill does. As you become aware of these unpleasant symptoms you start to feel that there is something wrong and the symptoms worsen.

By now the heart is beating fast, you may be sweating and breathless and even feeling some chest pain.

This is often what we may feel when we are having a panic attack.

Learn to control your anxiety

Learning how to cope with these feelings will give you the power to control the very unpleasant symptoms involved and help you to deal with what is actually happening.

Reducing the stress caused by the symptoms will also help prevent angina from coming on. There are some techniques that you can learn that will, with practise, help you to deal with any situation that makes you feel anxious.

- Learn how to talk yourself out of panic by concentrating on how you actually feel and not how you imagine you are going to feel.
- Replace negative thoughts with positive images of you doing things without any problem.

- Try and remember that most things are not as bad as you think they are going to be.
- Learn to check your breathing so that you don't breathe too fast (hyperventilate) and practice breathing control. Counting one thousand, two thousand, three thousand helps.
- Learn and practice a relaxation technique.

Learn breathing control

This is a very simple way of learning how to breathe normally and restore normal breathing when you are anxious.

It involves gentle breathing using the lower part of your chest and stomach, with the upper chest and shoulders relaxed.

Breathing control has been found to be very helpful during an angina attack, so it is worth practising this when you feel calm and symptom free, so that it can be used easily when you are having an attack.

- Settle yourself in a relaxed position, sitting is good.
- Make sure that your back is supported.
- Rest your hands on your lower rib cage / stomach.
- Keep your shoulders and upper chest relaxed.
- Feel the gentle rising and falling under your hands as you breathe in and out.
- Find a rhythm that is comfortable for you. (counting your breaths might help)
- Concentrate on the lower part of your chest moving rather than the upper part.

- Do not try to take deep breaths, concentrate on breathing slowly.
- Try not to gulp air, swallowing a couple of times helps this.

The more you practise this the easier it becomes. You will then be able to practise it standing and then go on to using it whenever you are anxious or exerting yourself, or during an angina attack.

Ask for help

All of this is quite hard to take in at once.

Some people find it easier to learn these techniques with the help of a professional, maybe a psychologist or counsellor.

Relaxation tapes are available in bookshops and supermarkets.

Some community centres run relaxation classes.

Depression and feeling down

It is very common for people with CHD to develop depression. This can happen when you notice that your quality of life is being affected by your symptoms e.g. you can no longer do the things you enjoy doing.

Depression affects your mood and how you feel about life. It can make you feel as if you don't want to get up in the morning or as if you don't want to go out or see family or friends.

Sometimes you may feel short tempered or irritable or you may feel as if there is no point in anything.

Sometimes you may not realise you are depressed as the symptoms can creep up over a period of time. If you think you might be depressed speak to someone about it as effective treatment is available.

Keeping active

Keep active by pacing yourself

Any form of exertion can bring angina on; climbing stairs, carrying shopping, walking up a slope or hurrying.

These are things that we can not really avoid in usual circumstances.

The last thing you want is to become a prisoner who can no longer do ordinary every day things for fear of angina coming on.

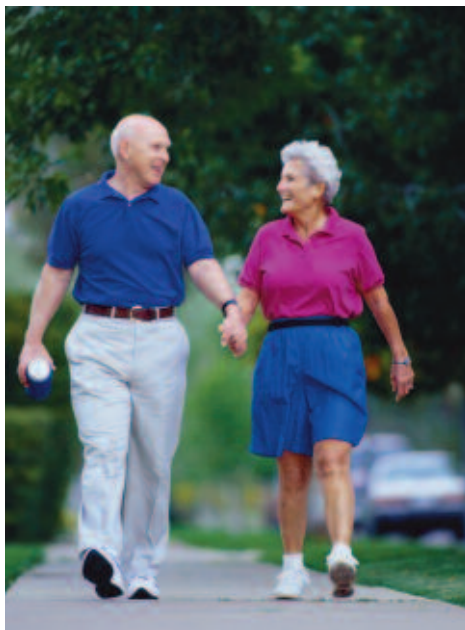
You may find you have to pace yourself in your daily activities so that you do not overdo it one day and then have to rest and feel unwell the next.

Breaking bigger jobs up into smaller tasks makes this easier.

There is no reason why the whole lawn has to be cut in one day, or a room cleaned or decorated at once.

In the same way you can break up a walk into distances you know you can manage, even if it means using your spray to do so.

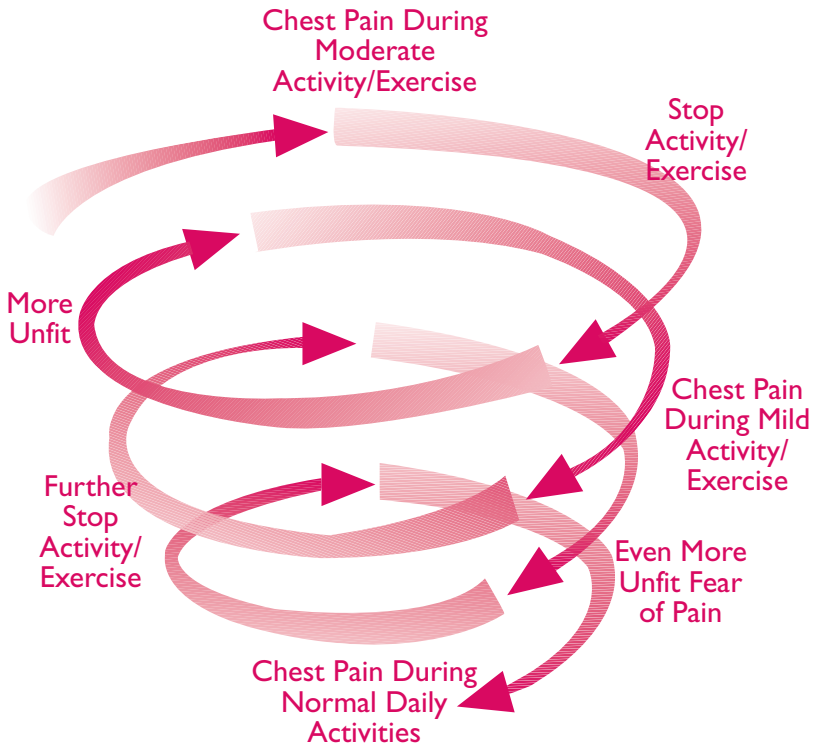
If you think about this and try it, you will see that doing the things you want to do may not be so impossible after all. It will help you not to lose your confidence as well as keep you active.



The added benefit of keeping active

Keeping active has been proven to be of great benefit to angina sufferers.

It is also known that we very quickly become unfit if we stop keeping active or become 'deconditioned'. Anything requiring effort will be harder for the heart to cope with, and so angina will come on more quickly. The downward spiral of inactivity soon takes hold and it can be a long slow process to gradually build up again to be able to do what you want to be able to do. Some hospitals run angina rehabilitation programmes of activity to teach angina sufferers how to get around this problem.



When to see the doctor

You should see your doctor urgently if:

- You are getting angina for the first time
- The pain / breathlessness is getting worse and occurring more frequently
- The pain / breathlessness happens when you are not doing anything.

During an attack of angina you should call the doctor if:

- You have been newly diagnosed with angina and pain occurs when you are walking less than 25 yards on the flat
- It occurs at rest (usually in bed)
- If you are very breathless
- If you feel faint
- If the pain comes on while you are recovering from a recent heart attack.

When to call 999

If your chest pain is more severe than usual and persists in spite of treatment with GTN it is possible you may be having a heart attack.

Don't wait longer than 15 minutes before calling 999.

Pain / breathlessness: sit down...deep breath...2 puffs...wait 5 minutes...2 puffs...wait 5 minutes...dial 999.

You may also feel sick and be sweating and clammy.

Your complexion may become grey and pale.

This may be an emergency situation where getting help quickly could be vital.



What to ask the doctor:

If you have multiple problems that make it hard to always know what is causing your pain ask your doctor to clarify what you should do and in what order.

If you are taking many different medicines, discuss what they are for with your doctor, so you are in no doubt that you need them.

Write down any questions that you may have before going in to see the doctor.

**Friends and family**

Many people find it hard not to be overprotective of their loved one.

It is very helpful to sit down with your friends and family and explain to them what you would find most helpful for them to do for you.

Also explain what you want them to do when you are having an angina attack. They may also get anxious and fearful, making your angina attack worse by fussing and insisting on always calling the doctor.

Try to understand that they are only concerned for you.

If you bring your angina out into the open, and discuss it, you will all know what to do. Read this booklet together and talk about your situation.

Work

Some people can not continue to work, due to safety reasons, eg. pilots and divers or those whose jobs are excessively physically or mentally demanding. Where physical requirements are too much for angina sufferers, it may be necessary to retrain or finding alternative duties at your workplace.

When your job is mentally demanding or stressful it is important to learn some stress management skills, including time management.

A simple rule of thumb regarding time management is one third sleep one-third work and one third social and leisure activities.

Heavy jobs at home can be dealt with a little at a time e.g. gardening, decorating, but don't let the thought of them cause anxiety.



Sex

Some people lose interest in sex or come to fear sexual activities when they develop coronary heart disease.

This may be because of fear of having a heart attack or a very bad attack of angina. It may be that a person feels their role with their partner has changed.

The stress on the heart during sexual intercourse is equal to walking briskly up and down two flights of stairs of 13 steps each. If no pain or undue breathlessness occurs then intercourse should be problem free.

Sexual activity should be resumed gradually and carefully in order to determine if it will bring on angina. You can take your GTN either before or during sexual activity in the same way you would use it for any other activity.

Generally sex with an unfamiliar partner, after a heavy meal, when intoxicated or when fatigued is more likely to bring on angina.

Some people find their desire for sex altered or experience impotence. This can be a side effect of beta-blockers so speak to your doctor about it.

Talking to your partner about how you feel and any worries you may have will make it easier for you both to deal with the situation before it becomes a problem. Sometimes simple solutions can be found such as using different positions.

If you or your partner have any questions or concerns regarding your sexual relationship try to talk to your doctor. If necessary he can refer you to a specialist for counselling.

Driving

If you ever experience angina while driving stop the car safely – immediately.

For safety reasons the DVLA (Driver and Vehicle Licensing Agency) has strict guidelines about who may and may not drive.

Group 1 Licence Holders: Motorcars and Motorbikes

Driving must cease when symptoms of angina occur at rest or at the wheel. Driving may recommence when symptoms are well controlled.

Driving must cease for one week following angioplasty and four weeks following bypass surgery (CABG).

The DVLA need not be notified.

Group 2 Licence Holders: Lorries and Buses

You are not always allowed to drive in this category with a diagnosis of angina.

Re-licensing may be permitted when you have been free from angina for at least six weeks, provided that the exercise requirements can be met and there is no other disqualifying condition.

You are disqualified for six weeks following angioplasty and three months after bypass surgery (CABG).

You **must** notify the DVLA.

Your insurance will be invalid if you have to make a claim and have not notified the DVLA of any problems when required to do so.

If you are in any doubt about your fitness to drive please consult your doctor.



Flying

You are allowed to fly as a passenger as long as your angina is stable. If you require assistance or early boarding you should notify the airline in advance. Make sure you are not carrying heavy luggage and that you have your medication, especially GTN in your hand luggage.

Travel insurance

You have to declare having angina or coronary heart disease when seeking travel insurance to ensure that you have the appropriate cover when abroad.

To protect yourself when flying always:

- Drink plenty of fluids.
- Avoid alcohol.
- Get up regularly for short walks.
- Make sure you have plenty of legroom, book in advance if need be.
- Stretch and move your feet and legs regularly when sitting.

More details can be found in the CHSS factsheets ‘Air Travel’ and ‘Sympathetic Insurance Companies’.

Additional Helpful Information

- Always check with the pharmacist that ‘over the counter’ remedies are safe to be used with your tablets before buying.
- Alcohol may increase side effects of headache with GTN.
- Beware of grapefruit and cranberry juice as they can react with statins and warfarin. No more than one portion of grapefruit / juice per day is recommended.
- GTN patches can be helpful as a back up to other medication especially overnight, discuss with your doctor.
- Avoid moving or carrying heavy objects; ask someone to help you.
- Eating a large meal can increase the work the heart has to do by 20%. Change your routine so that you can have a rest after eating or eat smaller meals more often and avoid angina.
- Angina is often worse in cold or windy weather, so wrap up warmly and don’t overdo things.
- A lowered pulse rate is normal with beta-blockers. Cold hands and feet are also common. If tiredness and fatigue becomes a problem, the doctor will probably try lowering the dose.
- You must keep taking your tablets as and when prescribed, even if you are going to the hospital for tests or to see a specialist, unless specifically asked to do differently.

- If you are going to use a mobile phone in an emergency, you must tell the emergency services operator exactly where you are, so that the call is diverted to a local centre.
- Do not be afraid to seek medical help if you have severe angina or possible symptoms of a heart attack. Many people with long term angina are slow to seek help as they perceive it as time wasting.

Useful addresses

Alcohol Focus Scotland

166 Buchanan Street, Glasgow G1 2LW

Tel: 0141 572 6700

Fax: 0141 333 1606

Email: enquiries@alcohol-focus-scotland.org.uk

Website: www.alcohol-focus-scotland.org.uk

Alcohol Focus Scotland is committed to improving the quality of people's lives by changing Scotland's drinking culture - promoting responsible drinking behaviour and discouraging drinking to excess.

Blood Pressure Association

60 Cranmer Terrace, London SW17 0QS

Blood Pressure Information line

Call: 0845 24 0989

Line open: 11am to 3pm Monday to Friday.

Email information service through website.

Website: www.bpassoc.org.uk

The Blood Pressure Association is the UK-wide charity dedicated to lowering the nation's blood pressure. Their aim is to prevent unnecessary death and disability from heart disease, heart attacks and stroke caused by high blood pressure. Free on line membership and a full subscription membership available.

Chest Heart & Stroke Scotland

65 North Castle Street, Edinburgh EH2 3LT

Tel: 0131 225 6963

Fax: 0131 220 6313

Advice Line: 0845 077 6000

E-mail: adviceline@chss.org.uk

Website: www.chss.org.uk

Depression Alliance Scotland

28 Alva St, Edinburgh EH2 4PH.

Telephone: 0845 123 23 20

(10am - 2pm Mon, Tues, Thurs and Fri)

Email: info@dascot.org

website: www.dascot.org.uk

Provide information, support, understanding and care to those affected by depression and their families and carers.

Diabetes UK Scotland

Savoy House, 140 Sauchiehall Street

Glasgow G2 3DH

Tel: 0141 332 2700

Careline: 0171 636 6112

Fax: 0141 332 4880

Email: scotland@diabetes.org.uk

Website: www.diabetes.org.uk

Diabetes UK Scotland is dedicated to putting the interests of people with diabetes first, through the best in campaigning, research and care.

Driver and Vehicle Licensing Agency DVLA

Medical Advisors

DVLA

Longview Road

Swansea SA99 1DA

Medical Helpline: 0870 600 0301

Email: medadviser@dvla.gsi.gov.uk

For safety reasons, the DVLA (Driver and Vehicle Licensing Agency) has strict guidelines about who may and may not drive. If you or your physician would like further clarification, information is available on the government website www.dvla.gov.uk

Heart UK

7 North Road

Maidenhead SL6 1PE

Tel: 0845 450 5988

Email: ask@heartuk.org.uk

Website: www.heartuk.org.uk

HEART UK is a national charity for patients and their families which combines the rich skills of research scientists and the caring and knowledgeable attention of doctors, nurses and dietitians, in order to support all those at risk of inherited high cholesterol and cardiovascular disease.

Take Life on One Step at a TimeWebsite: <http://www.takelifeon.co.uk/>

Take Life On is a campaign run by the Scottish government initiative Healthier Scotland. It aims to promote everyday changes to diet and lifestyle which can provide significant health benefits and will help to reduce the risk of cancer, heart disease and diabetes, and can make you feel really good about yourself.

NHS 24

Tel: 08454 24 24 24

Textphone: 18001 08454 24 24 24

Website: nhs24.com

This phone service is designed to help you get the right help from the right people at the right time. The service works in conjunction with General Practitioners, Accident and Emergency, Ambulance and Community Pharmacy services. The website provides comprehensive up-to-date health information and self care advice for people in Scotland.

Smokeline

Tel: 0800 84 84 84

Telephone advice and support to those who wish to stop smoking, their family and friends. Smokeline also provides a free copy of their helpful guide to stopping smoking.

Stresswatch Scotland

Information leaflets, self-help programmes and relaxation tapes available from the Stresswatch Office.

Tel: 01563 570886

Helpline: 01563 574144

Monday to Friday from 10:00am – 6:00pm.

Website: www.stresswatchscotland.com

Email: office@stresswatchscotland.com

The information contained in this booklet is based on current guidelines and is correct at time of printing. The content is also put out to peer, patient and expert review.

If you would like to feedback in any way please contact:
Lorna McTernan, Publications Manager at the address below.

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Chest, Heart and Stroke Scotland is an autonomous Scottish Charity. We receive no government funding and rely entirely on public subscription to fulfil our programme of activities.

We need £5 million a year to fulfil our commitment to improving lives for Scottish people. We need your help and your money to help others. You can help by volunteering your time as a fundraiser, VSS volunteer or support your local Regional office. You can send a donation, remember us in your Will, take out a Deed of Covenant or organise a fundraising event.

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If you would like to speak to one of our Advice Line nurses, in confidence, phone/minicom Chest, Heart and Stroke Scotland Advice Line

Monday – Friday

9.30am - 12.30 and 1.30pm - 4.00pm

0845 077 6000

Fax us: 0131 220 6313

Email us: advice@chss.org.uk

Text us: text chss followed by your message to 07766 40 41 42

Chest, Heart & Stroke Scotland and CHSS are operating names of The Chest, Heart & Stroke Association Scotland, a registered Charity No. SCO18761

August 2008

