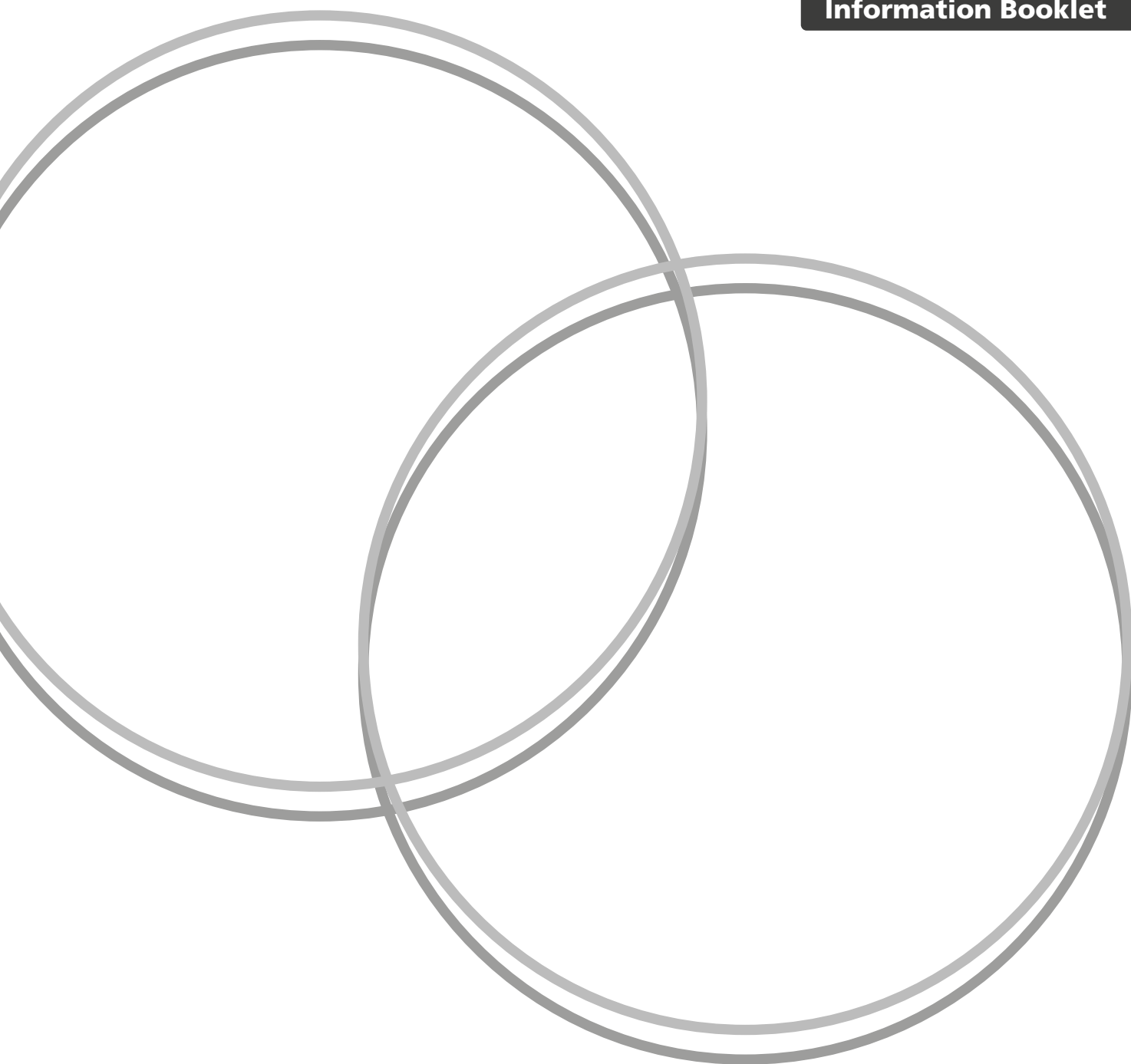




Oxford University Hospitals
NHS Foundation Trust

Cardiac Rehabilitation

Information Booklet



Oxford Heart Centre

Name

Your Cardiac Rehabilitation Nurse is

Contact numbers

Horton Hospital: 01295 229 426

John Radcliffe Hospital: 01865 220 251

Contents

Page

Cardiac Rehabilitation Department Philosophy	3
The Cardiac Rehabilitation Department	4
Information sessions and Exercise Programme	4
Heart conditions	4
GTN (Glyceryl Trinitrate) – tablets or spray	6
What to do if you get chest pain	7
Symptom record	8
Medications	10
Driving regulations	14
Appointment log	17
Your feedback	18
Questions or concerns	18
Useful contacts	19



Cardiac Rehabilitation Department Philosophy:

Following a cardiac event, to provide and empower individual patients and their families with the skills and motivation to self-manage their physical and psychological recovery, to resume optimal function in their community, and through improved health behaviour achieving an absolute risk reduction in cardiovascular mortality.

We aim to do this by delivering a high standard, evidence based personalised Cardiac Rehabilitation which is delivered in a range of formats.

Cardiac rehabilitation

This booklet will provide you and your family with information about your heart condition and medications you are taking.

When we see you in hospital we will explain this booklet to you. If there is anything that you do not understand or would like further information about, please do not hesitate to contact us.

Information sessions

We run a series of online education sessions on Microsoft Teams which cover many different topics, including:

- **What is heart disease and the risk factors.**
- **Medications.**
- **Healthy eating and the mediterranean diet.**
- **Physical activity and exercise.**
- **Mental wellbeing, thoughts and feelings.**

Exercise programme

A supervised Exercise Programme is run by the Cardiac Rehabilitation Team in the Cardiac Rehabilitation Gym at the Horton Hospital and at local leisure centres across Oxfordshire. Before you start exercising in the gym you will be given an appointment for an assessment. After the assessment you will have an individual exercise programme planned for you.

Cognitive Behavioural Therapy

As part of our service we offer psychological support in the form of Cognitive Behavioural Therapy (CBT). This is a talking therapy which will help with feelings of anxiety or low mood. Please speak to your Cardiac Rehabilitation Nurse for more information.

Following your stay in hospital, if you would like more information about risk factors for coronary heart disease or would like to access the Exercise Programme then please do not hesitate to contact your Cardiac Rehabilitation Nurse.

Heart conditions

Acute Coronary Syndrome

This is a term which you may hear the doctors using when they discuss your diagnosis. Acute Coronary Syndrome is a broad term which was introduced by the World Health Organisation in 2001 and includes a diagnosis of either unstable angina or a heart attack (acute myocardial infarction).

The doctor will make the diagnosis based on your recent symptoms, medical history, clinical examination, the Electrocardiogram (ECG) results and blood tests taken over 12 to 24 hours.

The blood tests measure an enzyme called troponin – a chemical released by the heart when the heart muscle has been damaged. This measurement will be slightly raised even if only a very small amount of damage has occurred. The doctor will then explain whether you have had a heart attack or an episode of unstable angina.

The aim of all the treatment you receive in hospital is to help your heart recover. The area of the heart muscle that was deprived of oxygen will form scar tissue over the first 4-6 weeks. The Cardiac Rehabilitation Team is here to help you with your recovery.

Heart Attack (acute myocardial infarction)

A heart attack may also be called acute myocardial infarction, a coronary thrombus, a coronary occlusion of an artery, or acute coronary syndrome.

A heart attack happens when an area of heart muscle has been deprived of oxygen for a short period of time. This could be caused by a blood clot or blockage in a coronary artery. This usually causes severe pain or discomfort which may last for several hours. Other symptoms of a heart attack can include nausea, vomiting, sweating, shortness of breath, dizziness and occasional loss of consciousness.

It is therefore very important that if you have pain which is not relieved by rest or your GTN spray after a total of 10 minutes, that you call 999 and get to hospital as soon as possible. (See 'What to do if you get chest pain' on page 7.)

Angina

Angina is a warning sign that the heart muscle is temporarily not receiving enough oxygen.

• Stable angina

Angina can occur when the heart is working a little harder than usual due to various factors. For example:

- exercise
- excitement
- walking fast
- cold weather
- eating a large meal.

This should be relieved by using your GTN spray or tablets. These improve the blood flow to the heart muscle by opening the coronary arteries within 3-5 minutes. This type of angina is normally well controlled with medication. People describe it as a pain, discomfort, tightness, or indigestion-like ache. The pain or discomfort can radiate into your throat, into one or both arms (more commonly the left arm), and into your back.

• Unstable angina

This occurs over a few days with increasing frequency and can be triggered by much less exercise or even at rest (without exercise). This means it can be unpredictable. It may settle on its own or may require a spray or tablet of GTN under your tongue.

This is your heart's way of saying it is not getting enough oxygen and should not be ignored. It is very important that you call 999 if you have a pain that is not relieved by either rest or GTN and lasts for more than 15 minutes. (See 'What to do if you get chest pain on page 7).

When you first leave hospital you may well have an increased awareness of sensations in your body; this is normal and will settle down over time. You may continue to experience some angina and your GP will want to know about this and what brings it on. Your GP will also want to know if your pattern of angina changes, or if it is starting to interfere with your normal day to day activities. **It is particularly important to let your GP know if you are getting angina for the first time, if you are getting it at rest, or if it has suddenly started to wake you from your sleep.**

It is worth remembering that you may have to learn to live with your angina and gradually learn how to manage it so that it interferes with your life as little as possible. If you do continue to get angina it is still important to be physically active. However, you should adjust your activity so that it doesn't cause angina or make you too breathless.

GTN (Glyceryl Trinitrate) – tablets or spray

GTN treats chest pain quickly. It can also be used before an activity that would usually start your chest pain.

How does it work?

Angina is caused when an area of the heart muscle doesn't get enough oxygen. GTN dilates (widens) the blood vessels and allows more blood and oxygen to be pumped to the affected heart muscle.

How to take your GTN medication

- If you get angina, stop what you are doing and sit down.
- If your pain does not ease within a minute, use your GTN under the tongue (stay seated).
- If, after 5 minutes of using your GTN, the pain is still present, take another dose. If the pain does not improve with two doses, you should call an ambulance.
- With GTN tablets, once the pain has stopped you can spit out the tablet.

If your pain becomes severe at any stage, or if you feel unwell, use your GTN and call an ambulance. Please see the flow diagram overleaf which clearly shows each step to follow.

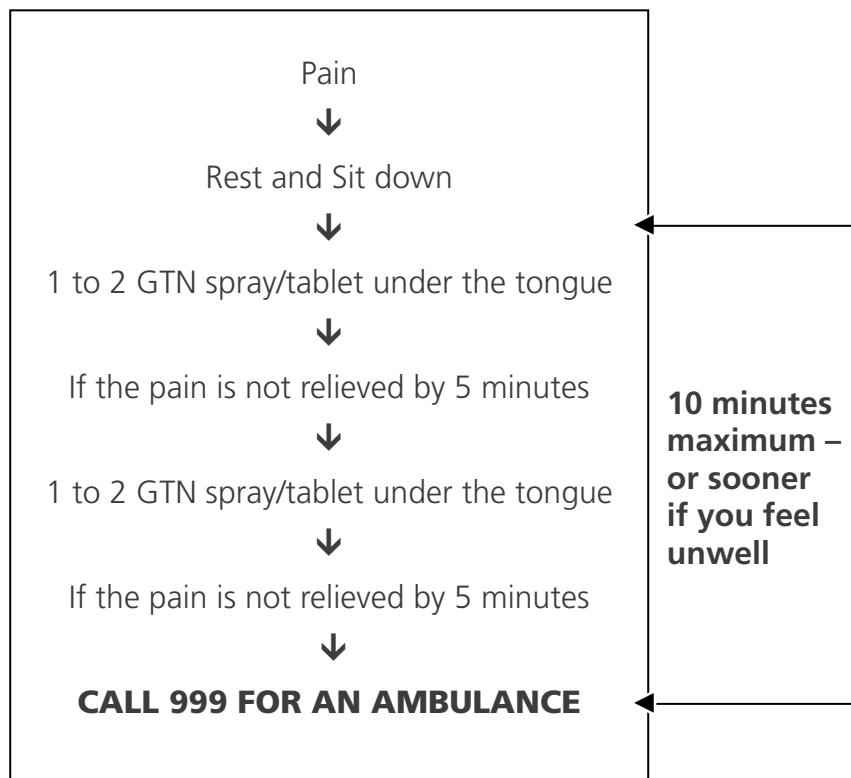
Storage of your GTN

- The GTN spray should have its expiry date printed on the bottle.
- Once GTN tablets are opened, they lose their effectiveness after 8 weeks. Write the date they will expire on the bottle and make sure you have a new supply before this date. When using the tablets you should get a slight tingling sensation under your tongue. If you do not, they may be out of date, so you need to replace them. Do not transfer the tablets to any other container and do not mix them with any other drugs.
- The tablets or spray can be obtained by prescription. However if you run out of GTN it can be bought over the counter at a pharmacy.
- It is very important to carry your GTN spray or tablets with you at all times. Do not give your GTN to a friend or partner to put into his/her bag or pocket. If you do, it may not be available when you need it.
- You may wish to get an additional GTN spray, one to carry with you and one to have at home.

Side effects

GTN may cause your face to become flushed, dizziness and headaches. To reduce the risk of dizziness, please stop your activity, sit down and rest before standing up again. To relieve a headache, you can use simple painkillers such as paracetamol.

What to do if you get chest pain



If at any point your pain becomes worse, or if you feel unwell (e.g. dizzy, sweaty, short of breath) call 999 for an ambulance immediately.

- If your pain is relieved but the episodes of angina are more frequent or are taking longer to go away, please arrange to see your GP to be reviewed.
- If you notice that you have started to get angina at night or when you are resting, it is important that you see your GP so that he/she is aware of your new symptoms.
- Do not exceed the recommended dose.
- If you feel you need to exceed the recommended dose, then call an ambulance.

Medications



Medications

This section gives you information about five groups of drugs that are commonly used in the treatment of coronary heart disease. As with all new medication it is advised that you read the patient information leaflet in addition to this guide.

You are currently taking:

- Aspirin
- Other antiplatelet drugs such as ticagrelor, clopidogrel, prasugrel
- Beta Blockers
- ACE inhibitors
- Statins and fibrates.

Aspirin

Aspirin tablets may be:

- soluble (these can be dissolved in water or swallowed whole)
or
- coated (these tablets cannot be dissolved and should be swallowed whole and not chewed).

What does aspirin do?

Aspirin lowers the risk of blood clots forming by making blood cells called 'platelets' less sticky. This makes the blood less likely to form clots in narrowed blood vessels. Blood clots can be responsible for causing a heart attack or symptoms of angina.

Side effects

- As aspirin affects the time it takes for a clot to form, you may find that you bleed for longer if you cut yourself. You may also bruise more easily.
- Aspirin may irritate the gut, causing indigestion or stomach pain. It is important that you take aspirin with or after a meal.
- Some people can be allergic to aspirin; this is more common in people who have a history of asthma. If you become short of breath or notice a wheeze after taking the tablet, please tell your GP.

If you have problems with these symptoms, we advise you to see your GP.

When taking aspirin for your heart, do not take further doses to use as a painkiller. Try using paracetamol or another type of painkiller instead. Contact your pharmacist if you are thinking about taking ibuprofen for pain. These drugs may interact with each other so you should seek advice before taking them together.

Antiplatelet drugs: ticagrelor, clopidogrel and prasugrel

Antiplatelet drugs lower the risk of blood clots forming by making blood cells called 'platelets' less sticky and less likely to form clots. Blood clots can lead to a heart attack, stroke or thrombosis (blockage) in the veins of the legs. Antiplatelet drugs are used in addition to aspirin for people who have had a heart attack. They will need to be taken for a year after a heart attack.

Side effects

- bruising
- dyspnoea – shortness of breath
- epistaxis – nose bleed
- gastrointestinal haemorrhage – internal bleeding in the gut
- subcutaneous bleeding (bleeding under the skin).

Caution:

Always tell your doctor and/or pharmacist about any 'over the counter' medications you are taking as some may interact with your tablets and could stop them from working.

ACE Inhibitors

ACE inhibitors widen (dilate) and relax blood vessels; this reduces blood pressure and helps to protect the lining of blood vessels. After a heart attack and in heart failure it is easier for the heart to pump into widened and relaxed blood vessels.

ACE inhibitors can be used after a heart attack to reduce the risk of further heart attacks; to treat high blood pressure; or to treat heart failure. They are normally started at a low dose. Your GP will gradually increase this dose over the weeks following your discharge from hospital. You will usually need to have a blood test at your GP's surgery before the dose is increased. This test will check certain levels of substances in your blood to make sure your body is happy processing the ACE inhibitors.

Common names of ACE inhibitor tablets/capsules

Ramipril, Lisinopril, Captopril, Enalapril, Perindopril, Quinapril.

Side effects

- As the aim of ACE inhibitors is to lower your blood pressure, you may feel dizzy for a short time after taking the tablet. This usually goes away after taking the medication for a few days. If the dizziness continues, try taking it at bedtime.
- Other side effects include a dry cough which normally goes away after 2 to 3 months, and a runny nose/cold like symptoms. A simple linctus (cough mixture) can help with this but ask your pharmacist which one you can take.

If you are experiencing these side effects and they are a problem for you, see your GP for advice.

Beta-blockers

Beta-blockers slow your heartbeat down; this reduces the workload of your heart. They are used for a number of reasons, such as reducing high blood pressure, reducing the symptoms of angina, and to control fast heartbeats. They can also reduce the risk of further heart attacks and are sometimes given in heart failure to improve the function of the heart.

Common tablets/capsules:

Atenolol, Bisoprolol, Carvedilol, Labetalol, Metoprolol, Propranolol, Sotalol

Side effects

- When first taking your beta-blocker you may feel more tired than usual and get cold hands and feet. These problems usually go away with time.
- Some people experience vivid dreams, which should ease within a couple of weeks. If these continue for longer than this, speak to your GP.
- If you have diabetes, they may affect the amount of insulin you need. Please note that they may also hide the signs of a 'hypo' (low blood sugar) so it is important that you keep strict control of your blood sugar level.
- In a very small number of people, beta-blockers can cause a wheeze or difficulty in breathing. This is more common in people who have a history of asthma or lung problems. If this occurs, you must contact your GP immediately. Do not stop taking the tablets unless instructed by your GP.
- For men, beta-blockers may lead to impotence (inability to have an erection).

If you are experiencing these side effects and they are a problem to you please contact your GP for advice.

Statins and fibrates

Statins and fibrates lower the cholesterol and triglyceride levels in the blood. These are types of fats. High levels of cholesterol and triglycerides can clog up the coronary arteries that supply blood and oxygen to your heart muscle; this can lead to a heart attack.

Common names of statin and fibrate tablets/capsules

Statins: Atorvastatin, Fluvastatin, Simvastatin, Pravastatin, Rosuvastatin.

Fibrates: Bezafibrate, Fenofibrate.

Ezetimibe is also used to control familial hypercholesterolaemia alongside statins and a change in diet.

Taking your cholesterol lowering medication

Any drug therapy to lower cholesterol should be combined with a low fat diet. **It is best to avoid taking grapefruit juice with these medications because it can affect the way the medication works.**¹

Statins are most effective if taken in the evening or before you go to bed, because it is during the night that most cholesterol is produced. Fibrates should be taken with or after food as instructed on the packaging.

You are likely to have yearly blood tests to check on your cholesterol and monitor the effects of the statins on your liver. Even when your blood cholesterol level is reduced you will still benefit from following a low fat diet and continuing to take your medication.

Side effects

Some people experience a mild stomach upset and a rash. You may also have general muscle weakness and aches and pains. If you have problems with these symptoms, we advise you to see your GP.

Your medication information

Are you allergic to any medications? If so, please list them.

Have you experienced any major side effects? If so, please list them.

Use this section to make a record of your medications

Drug name	What is the dose?	How often do you take it?	Write any changes and dates in here

Driving guidelines

Car /motor cycle licence holders (Group 1 entitlement)

If you have a Group 1 licence, with no other disqualifying conditions, the DVLA guidelines are as follows:

If you have angina

You must stop driving if you have angina symptoms whilst driving, or if your symptoms occur whilst resting or with emotion. You may start driving again when symptoms are relieved. You do not need to inform the DVLA. **If you have angina whilst driving you must stop the car and take your GTN tablets /spray. Remember to take your GTN tablets /spray with you whenever you go out.**

If you have had a heart attack (myocardial infarction), ACS (acute coronary syndrome) or unstable angina

You must stop driving for 4 weeks if you have had a heart attack, ACS or unstable angina. In some cases, if you have been treated with an angioplasty and there has been little damage to your heart, driving can resume after 1 week, but strict guidelines must be adhered to. Your Cardiac Rehabilitation Nurse or Doctor will discuss this with you. You do not need to inform the DVLA.

If you have had an elective PCI (Percutaneous Coronary Intervention) (with or without a coronary stent)

You must stop driving for 1 week. You do not need to inform the DVLA.

If you have had heart surgery

You must stop driving for at least 4 weeks. However, you should wait until your sternum has been checked. Your surgeon will do this at your follow-up appointment. This appointment is usually around 6-8 weeks after your discharge from hospital. You do not need to inform the DVLA.

If you have diabetes

If your diabetes is controlled by diet alone you do not need to inform the DVLA, unless you develop complications from your diabetes, such as diabetic eye problems. If your diabetes is controlled by tablets or insulin you should contact the DVLA for further advice, as there are criteria that need to be met in order for driving to continue.

If you are diabetic and feel unwell whilst you are driving you must stop the car and take the keys out of the ignition. It is possible your blood sugars may have dropped and you are having a 'hypo'. In this situation you should have a snack or take glucose tablets. Wait until your blood sugar is above 4mmol/l before you continue with your journey.

Insurance

You should inform your car insurance company of your diagnosis, as it is a change to your medical condition. This should not affect your premiums in any way but will help prevent problems in the future if you need to make a claim.

When you start driving again

When you start driving again you may find you are still quite tired and may have lost some of your confidence. It is best to avoid long journeys or peak hour traffic. You may prefer to drive with a friend or partner until you are more confident.

If you have any questions please speak to your doctor, Cardiac Rehabilitation Nurse, GP or the DVLA.

LGV/PCV licence holders (Group 2 entitlement)

If you have a Group 2 licence, with no other disqualifying conditions, the DVLA guidelines are as follows:

If you have angina

You must stop driving and inform the DVLA. Re-licensing may be permitted provided you are free from angina for at least 6 weeks and exercise tests and other functional tests meet their requirements.

If you have had a heart attack (myocardial infarction), ACS (acute coronary syndrome) or unstable angina

You must stop driving and inform the DVLA. You will be disqualified from driving for at least 6 weeks. Re-licensing may be permitted provided exercise tests and other functional tests meet the requirements. **Please be aware that these tests are rarely completed within 6 weeks and may take several months to complete.**

If you have had an elective PCI (Percutaneous Coronary Intervention) (with or without a coronary stent)

You must stop driving and inform the DVLA. You will be disqualified from driving for at least 6 weeks. Re-licensing may be permitted provided exercise tests and other functional tests meet the requirements. **Please be aware that these tests are rarely completed within 6 weeks and may take several months to complete.**

If you have had heart surgery

You must stop driving and inform the DVLA. You will be disqualified from driving for at least 3 months. Re-licensing may be permitted provided exercise tests and other functional tests meet the requirements. **Please be aware that these tests are rarely completed within 6 weeks and may take several months to complete.**

If you have diabetes

If your diabetes is controlled by diet alone you do not need to inform the DVLA, unless you develop complications from your diabetes, such as diabetic eye problems.

If your diabetes is controlled by **tablets** you should inform the DVLA. A strict criteria needs to be met in order for driving to continue.

If your diabetes is controlled by **insulin**, even on a temporary basis, you must inform the DVLA and stop driving. It is possible your licence will be withdrawn whilst you are taking insulin.

You must inform the DVLA as soon as you are discharged or diagnosed. The DVLA will advise you on what you need to do next. This may involve filling out forms which they will either send to you or you can download from their website. The DVLA will request medical information from your consultant and functional tests if required. This may take some time so please contact the DVLA as soon as possible.

DVLA guidance is regularly updated and the information given in this booklet may change. Please see the DVLA website for the most up to date information:

Website: www.gov.uk/dvla-medical-enquiries

If you have any questions please speak to your doctor, Cardiac Rehabilitation Nurse, GP or the DVLA.

DVLA contact details

Website: www.gov.uk

Drivers Medical Enquiries, DVLA, Swansea, SA99 1TU

Car or motorcycle, telephone: 0300 790 6806

Appointment log and useful contacts



Appointment dates

Date and time	Who appointment is with:	Reason for and outcome of appointment:

Your feedback

If you wish make a comment (good or bad!), make a suggestion, or a complaint, initially please talk directly to the staff involved in your care. We also have a feedback questionnaire that you can complete anonymously whilst you are on the ward or when you return home. Please ask a member of staff if you haven't already received this.

You can also contact the Patient Advice and Liaison Service (PALS):

John Radcliffe Hospital PALS

Telephone: 01865 221 473 or via switchboard 0300 304 7777

Email: PALS@ouh.nhs.uk

Address: PALS Office
John Radcliffe Hospital
Headley Way, Headington
Oxford, OX3 9DU

Horton General Hospital PALS

Telephone: 01295 229 259

Email: PALS@ouh.nhs.uk

Address: PALS Office
Horton General Hospital
Oxford Road
Banbury, OX16 9AL

Questions or concerns

We hope that this information booklet and your Cardiac Rehabilitation team have answered all your questions on your heart condition.

If, in the future, you or your partner needs further help or advice, please do not hesitate to contact your local Cardiac Rehabilitation team.

If you have any questions or concerns about any of the information in this booklet, please contact your Cardiac Rehabilitation Nurse.

John Radcliffe Hospital

Telephone: 01865 220 251

Horton General Hospital PALS

Telephone: 01295 229 426

Useful contacts

Arrhythmia Alliance

24 hour Helpline: 01789 867 501

Website: heartrhythmalliance.org

Email: info@heartrhythmalliance.org

British Heart Foundation

Heart helpline: 08088 021 234

Website: www.bhf.org.uk

Email: hearthealpline@bhf.org.uk

Dial-a-Ride

A countrywide minibus service for people with mobility problems.

Telephone: 01865 876 176

Website: www.oxford.gov.uk

NHS Choices Healthy Eating

Information about food and diet with healthy recipes and advice.

Website: www.eatwell.gov.uk

Green Gym

A way to enhance your fitness and health whilst helping to improve the outdoor environment.

Website: www.tcv.org.uk/greengym

Walking for Health Initiative

Local health walks to help you get active and stay active.

Telephone: 0207 339 8541

Website: www.walkingforhealth.org.uk

NHS 111

Dial 111 from any landline or mobile for free NHS advice and out of hours appointments.

Oxford University Hospitals NHS Trust

Switchboard: 01865 741 166

Website: www.ouh.nhs.uk

Oxfordshire Talking Therapies

A service that provides talking therapies for people who live in Oxfordshire coping with mild to moderate levels of anxiety and depression.

Telephone: 01865 901 222

Website: www.oxfordhealth.nhs.uk/oxon-talking-therapies

Prescription Pre-payment Certificate (PPC)

Telephone: 0300 330 1341

Website: www.nhsbsa.nhs.uk/ppc

Community Diabetes Service for Oxfordshire

Courses to promote self-management of Type 2 diabetes.

Telephone: 01865 604 091

Email: diabeteseducation@oxfordhealth.nhs.uk

References

¹ Lilja, J. Neuvonen, M. Neuvonen, P. (2004). Effects of regular consumption of grapefruit juice on the pharmacokinetics of Simvastatin. *British Journal of Clinical Pharmacology*, 58 (1) pp 56-60.

National Institute of Clinical Excellence. Secondary prevention in primary and secondary care for patients following a myocardial infarction. www.nice.org.uk/CG048. 2007

National Institute of Clinical Excellence, Secondary Prevention in primary and secondary care for patients following a myocardial infarction. www.nice.org.uk/CG172. 2013

Notes

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Authors: Carol Schofield and Helen Nolte, Specialist Nurse Practitioners
February 2025
Review: February 2028
Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information



Making a difference across our hospitals

charity@ouh.nhs.uk | 01865 743 444 | hospitalcharity.co.uk

OXFORD HOSPITALS CHARITY (REGISTERED CHARITY NUMBER 1175809)

