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Why are you signing up for Heart Matters membership?

For myself   Because I’m caring for someone with a heart condition   For my work                   Other (please specify)

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Please tell us how you would prefer to read your Heart Matters magazine (select one option only).

Magazine delivered to me every two months.
Online version of Heart Matters magazine every two months (we will send you an email to tell you when the magazine is available online).

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Tick here to receive it (please ensure you have provided us with a valid email address above).

By providing the BHF with any personal data, you consent to the collection and use of this information in accordance with the above purposes and our privacy statement, which can be found at bhf.org.uk.

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4 This section is for healthcare professionals or Heart Support Groups only

Are you a healthcare professional?

Yes   No

Name of your organisation

What is your profession?

Community doctor  Dietitian  Doctor  Pharmacist  Community nurse  Practice nurse  Hospital nurse  Other (please specify)

Are you a member of a Heart Support Group?

Yes   No

How many printed copies of Heart Matters magazine would you like to receive over one year?

1               10              25               50               100

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Heart Matters magazine is full of inspiration. I feel truly blessed that you’re here to help.”
Nicholas Field, 64, Gloucestershire

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• Collect healthy recipes in your recipe folder.
• Stay up to date; regular e-newsletters.
• Get online; take advantage of our online healthy eating tools, online community and sign up for our motivational emails on eating healthily, getting active and more.
• Ask the experts; call our Helpline on 0300 330 3300 for anything heart related.

22 Ask the experts

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My new address is ______________ City/Town ______________ County ______________ Postcode ______________ Home phone number ______________

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Log in to the My Heart Matters website to update your details online. bhf.org.uk/heartmatters

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We'd be grateful if you could tell us the reason for cancelling your membership. This helps us to improve our service and make sure our records are up to date.

I don't need it any more.

The person who normally reads it has passed away.

I no longer find it useful.

I get this information and support from somewhere else.

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FREE

September/October 2014

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PULL OUT AND KEEP

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Cardiomyopathy can’t keep this beekeeper down

Are you getting the best hospital experience?

Back to basics

Healthy essentials to keep in your store cupboard

Creating a buzz

We examine alternatives to warfarin

Personaltouch

Drug cabinet

We examine alternatives to warfarin

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Fill a bag with good quality items and bring it into your local BHF shop this September. To find out more visit bagit.bhf.org.uk.

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Daniel Harris, 9 year old congenital heart disease survivor

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Daniel Harris, 9 year old congenital heart disease survivor

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Cover story
Silvan Morgan developed a passion for bagging mountains after his diagnosis of scoliosis. See page 10

Caroline Finch, Editor, and Sarah Kidner, Editor

MORE THAN A MAGAZINE
Visit bhf.org.uk/heartmatters to discover what your Heart Matters membership gives you.

Help us spread the word
If you’re a healthcare professional, you can get multiple copies of Heart Matters magazine packed full of extras such as extended interviews, interactive galleries and videos.
• Online tools, including a recipe finder, interactive eatwell plate and a fruit and veg portion guide.
• Email support on healthy eating, quitting smoking, getting active and improving wellbeing.
• Our online community where you can chat to others about your experiences. Visit community.bhf.org.uk.

I signed up to the Heart Matters motivational emails for extra encouragement*
Simon Whiteley, 67, Gloucestershire

And don’t forget, you can also call our Heart Matters Helpline, staffed by cardiac nurses and heart health advisers on 0300 330 3300 (lines are open 9am–5pm, Monday to Friday; costs are similar to 01 and 02 numbers).

I’ll be sending my daughter back to school for the start of a new year. As always, it’s a big moment, but not as big as her very first day.
For parents of children with congenital heart disease, that first day is perhaps all the more poignant, as I discovered when I met Maddie Griffin, whose daughter, Cordelia, was born with transposition of the great arteries; when the major arteries leaving the heart are the wrong way round. Cordelia needed an immediate operation.

Sarah Kidner, Editor
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What to expect from your hospital stay, from proper introductions to feeling informed when you leave

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A former BHF Professor on developments in congenital heart disease treatments

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Advances in imaging techniques are vital in the fight against heart disease

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A BHF-funded PhD student tells us why her work is so rewarding

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From hockey to rugby, it’s never too late to join a team and get fit

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■ Touching video: Watch as eight-year-old Cordelia, who was born with a heart defect, meets BHF Professor Robert Anderson and BHF shop volunteer Norma West
■ Ten of the strangest... team sports you may not have thought of trying
■ Top tips: Supporting a loved one who’s had a heart event
■ Getting involved: Emily Jay, who has congenital heart disease, on attending her first heart conference
■ Interactive infographic: See stories from intrepid BHF fundraisers around the globe, from Machu Picchu to the Three Volcanoes

Our expert team
Physics Activity Specialist
Lisa Purcell
has a sports science degree from Loughborough University, focusing on exercise and health promotion.

BHF Associate Medical Director
Dr Mike Knapton
oversees the work the BHF does to help people reduce their risk of heart disease. He still works as a GP one day a week.

BHF Medical Director
Professor Peter Weissberg
was appointed the first BHF Professor of Cardiovascular Medicine at the University of Cambridge in 1994.

Senior Cardiac Nurse
Doireann Maddock
has more than 10 years’ experience. She has worked in areas such as heart and lung transplant and cardiothoracic surgery.

Senior Cardiac Nurse
Maureen Talbot
qualified as a nurse in 1987. She has worked in the NHS and the private sector in both general and cardiac nursing. She is also a BHF Nurse Manager.

Senior Dietitian
Victoria Taylor
began her career working for the NHS and on public health campaigns. She advises on nutrition and acts as a spokesperson for us.

Senior Cardiac Nurse
Maureen Talbot
qualified as a nurse in 1987. She has worked in the NHS and the private sector in both general and cardiac nursing. She is also a BHF Nurse Manager.

Exclusive
Professor Robert Anderson has a long history with the BHF, most recently as a BHF Professor. We asked him about his pioneering research on congenital heart defects in children. See page 20

Guest experts
Dr Elijah Behr is an honorary consultant cardiologist and electrophysiologist at St George’s Hospital, London. See page 10

Dr Matt Wright is a consultant cardiologist and electrophysiologist and an honorary senior lecturer at St Thomas’ Hospital, London. See page 14

Previous issues of Heart Matters magazine, healthy eating tools, email support and our online community

WIN!
A Cotswolds break worth £1,000 – see page 43
**Our fight against cardiovascular disease**

Cardiovascular disease (CVD) takes the lives of 160,000 people a year in the UK, making it one of the nation’s biggest killers. It’s our mission to win the fight against CVD, and to do that we’re launching a new research-driven strategy to fight it head on.

Between now and 2020, we’ll increase investment in world-class research to fight it head on. Between now and 2020, launching a new research-driven strategy will centre on the need to invest even more in research and help drive the translation of discoveries to help more people survive CVD.

“We'll also build on our work across the four nations to keep hearts healthy, ensuring more people survive a heart attack or heart attack and make sure that patients and their families receive the best possible support, information and care. “Thanks to you, we’ve made great progress. But with you, we can beat it.”

Join our Fight for Every Heartbeat at bhf.org.uk/strategy.

Our strategy includes a new focus on reducing the time it takes to turn research discoveries into life-saving medical advances. Alongside this, we’re reviewing our world-class research portfolio to ensure that we’re having the greatest possible impact on CVD.

Our Chief Executive, Simon Gillespie, said: “Research has been at the heart of the BHF since it began, and it holds the key to winning the fight against cardiovascular disease. Over the next five years, our strategy will centre on the need to invest even more in research and help drive the translation of discoveries to help more people survive CVD.

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**Running heart disease out of town**

In October, more than 5,000 runners will take on a 13.1-mile challenge at our Blenheim Palace and Swindon Half Marathons. The events, supported by Santander, wind through stunning British countryside and also offer shorter fun runs for a great day out for all the family.

The series continues in early 2015, when our popular Longleat and Branksome Park Half Marathons will be joined by two new events: First in Warwickshire and the former Formula 1 racing track at Brands Hatch in March.

These events are a great way to help fund our life-saving research. Whether you’re a seasoned long-distance runner or have taken part in one of our 5k or 10k running events this year and are looking for your next challenge, pick your event and sign up at bhf.org.uk/halfmarathons.

**Cancer drug could help eye problems**

There are drugs available that are initially successful at reducing abnormal blood growth in the eye, but doctors have found that the effect doesn’t last and vision can often deteriorate again. Imatinib targets a separate pathway to the treatments that are currently used, and researchers have seen promising results in mouse studies.

Our Associate Medical Director, Professor Jeremy Pearson, said: “If further studies are successful, imatinib could provide a real benefit for these patients by stopping further deterioration of their eyesight.”

**WIN the new BHF charm from Pandora**

We were touched by the wonderful response from readers to Pandora’s first ever BHF charm back in February. Pandora has pledged £100,000 to the fight against heart disease in 2014, and we’re excited to reveal its new BHF charm, designed to celebrate our partnership.

Crafted from sterling silver and clear cubic zirconia, the charm also features a vibrant synthetic ruby: an eye-catching and symbolic reminder that the charm supports the BHF’s fight against coronary heart disease – the UK’s single biggest killer.

Whether a gift for someone special or a unique way to remember a loved one, it’s a stunning way to show your support.

The charm is available to buy at Pandora stores nationwide or online at pandora.net/or £55. Find your nearest store by visiting pandora.net/stores.

Pandora is giving two lucky Heart Matters readers the chance to win the new BHF charm. To enter, email your name and address to heartmatters@pandora.net or write to Press Office, Pandora Jewellery UK Ltd, 33 George Street, London W1U 3BH. Closing date 30 October 2014. For full terms and conditions, visit bhf.org.uk/HMtrimacs.
Patients make an impact at our annual conference

Patients and carers made a huge contribution to the British Cardiovascular Society/British Heart Foundation annual conference, which was held in Manchester in June.

The conference opened with a public discussion at Manchester Museum called ‘How Manchester is Fighting Heart Disease’. The panel included Gordon McKay, 75, of Salford Heart Care, who’s had a heart attack and heart bypass surgery.

Heart attack survivor Jill Wakeford, 55, from Chichester, was also involved in the early design work for the BHF stand in the exhibition hall. Fifteen heart patients, including members from six different Heart Support Groups, attended the conference and volunteered on the BHF stand.

Heart attack survivor Geoffrey Roughton, 84, from west London, and Emily Jay, 23, from Staffordshire, who’s had open heart surgery three times to treat congenital heart defects, also spoke at sessions for BHF healthcare professionals.

The BHF Healthcare Professionals Awards were held for the first time during the conference to recognise the BHF Healthcare professionals who have shown particular excellence in heart healthcare over the past year. This year, we invited patients to nominate professionals for the awards. Ray Funnell from London, who’s had heart valve surgery, endocarditis and heart rhythm problems, was involved in the selection process alongside Jill Wakeford.

Thirty-six Heart Support Groups contributed a piece to a one-off newspaper, News from the front line, which we distributed to doctors, nurses and scientists at the conference. The aim was to help researchers and healthcare professionals understand what peer support is and how it is beneficial to patients.

Patients helped to make the conference successful and we are looking forward to an even bigger patient presence next year. If you’d like to be involved, please let us know. Contact Katie Wilson on heartvoices@bhf.org.uk or call 020 7554 0194.

Emily Jay also attended the European Heart Network Annual Conference with our policy team. To read her thoughts on the conference, visit bhf.org.uk/HMconf.

The headlines included claims such as “Ketchup with everything: tomato sauce helps fight heart disease” and “£1-a-day tomato pill that helps your heart”; all of which are slightly inaccurate. The pill does contain a substance that is found in tomatoes, but it is not really a ‘tomato pill’. And the studies certainly did not look at ketchup, which should be eaten in moderation, as it is high in sugar and salt.

Incidence of cardiovascular disease is lower in countries where people typically eat a Mediterranean-style diet based on lots of vegetables, fruit, beans and cereal products. This research investigated the theory that lycopene, an antioxidant that gives tomatoes and other red vegetables their red colour, could be partly responsible for this diet’s benefits.

The researchers found that when people with cardiovascular disease who took statins were also given a chemical to widen their blood vessels, their blood vessels widened to a greater extent if they had been taking a lycopene pill every day for two months rather than a placebo. There was no difference in the healthy volunteers.

Previous evidence has shown that the function of cells lining the blood vessels (endothelial cells) is impaired in patients with cardiovascular disease. In theory, improving endothelial function might reduce the risk of developing heart disease.

The study, carried out by Cambridge researchers, was relatively short, following participants for two months. It was also quite small, involving just 36 people with cardiovascular disease and 36 healthy volunteers. It was intended as an initial ‘proof of concept’ study to suggest whether further research should be done. For this reason, it is not enough on its own to determine whether lycopene is able to cut the risk of having a heart attack or stroke.

The study authors say that further studies are needed to see if lycopene supplements could affect cardiovascular outcomes. Many studies have shown the heart health benefits of a diet high in fruit and vegetables, whether you have cardiovascular disease or not. The authors only suggest that lycopene may be partly responsible for the lower rate of cardiovascular disease in the Mediterranean. They note that lycopene pills would not be a sufficient substitute for the complex mixture of nutrients in a healthy diet.

Professor Jeremy Pearson, our Associate Medical Director, said: “Improved endothelial function is a known predictor of increased risk of future heart disease. Further work is needed to understand whether the beneficial effects seen in this small study translate into clinical benefit for at-risk patients.”

The BHF says: These new guidelines are part of continuing efforts to prevent heart attacks and strokes. Doctors will now be able to offer a statin to people at a lower risk, but it is important to emphasise that preventive strategies should be based on individual risk and needs a personalised game plan to help reduce their risk of cardiovascular disease.

The Daily Mail 17 July 2014

"Widespread statin use is ‘foolhardy’, says expert"

“Giving statins to five million more patients is ‘foolhardy’ and ‘unsafe’, according to an Oxford academic. Professor Klim McPherson warned that too little is known about the drugs’ side effects, which include type 2 diabetes and muscular pain. “The NHS watchdog NICe is expected to publish new guidelines urging GPs to offer them to anyone with a 10 per cent risk of developing heart disease within a decade.”

The Express 16 June 2014

"Rapeseed oil ‘better than statins for heart’"

“Rapeseed oil could be more effective than statins in helping to lower cholesterol and protect the heart. The oil – extracted from the bright yellow crop that covers much of the British countryside – has also proved to be effective against type 2 diabetes.”

The BHF says: These findings further demonstrate just how important it is to replace saturated fats such as butter and lard with healthier unsaturated fats like olive and rapeseed oil to help reduce blood cholesterol. However, it does not mean that patients can stop taking their statins as prescribed. While rapeseed oil may benefit your heart, consuming a diet of an unhealthy diet is unlikely to make much difference to your health. You need to make other changes too, like eating more fruit and vegetables and whole grains and fewer sugary, fatty snacks.

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Angiogram benefits

I was interested to read Dr Mike Knapton’s response to the letter ‘Is an angiogram necessary?’ (July/August issue).

Like the writer, at the same age, I started to get angina symptoms and my doctor sent me for the normal tests including the treadmill, but all the results were normal.

My doctor was of the opinion that I had classic angina symptoms and arranged for me to have other tests and an angiogram, which confirmed that I did indeed have angina. As a result, I had an angioplasty with three stents.

That was 11 years ago, and since then I have enjoyed an active, healthy and enjoyable life. Had it not been for the professionalism of my doctor, I could well have not had the necessary treatment and may have gone on to have a heart attack, and who knows what the outcome would have been.

So my advice to the writer is, “Listen to your doctor.”

Brian Wareham, Winchester

The best help I found was our local support group, Rochdale Heartbeat, which is affiliated to the BHF. While benefiting from their support and advice, I was also able to get involved with fundraising for our local hospital and community. We regularly buy equipment and help staff to attend courses.

Last year we presented 11 local sports clubs with defibrillators and helped to buy an expensive piece of equipment for the local cardiology department to give patients a better service. I feel this enabled me and others to give something to others and also help ourselves. It was rewarding to hear that, for our efforts, we have been awarded a gold award by the North West Ambulance service.

Margaret Mather, Rochdale

Editor Sarah Kidner replies: Congratulations on your award and thank you for all your efforts. To learn more about Heart Support Groups, visit bhf.org.uk/heartsupport or call 0300 330 3300. Our November issue will look at the work we’re doing to increase survival from cardiac arrest and how community groups can get involved.

Heart Support Groups

The May/June issue of Heart Matters ticked so many boxes of my own experiences over the past seven years since I suffered a cardiac arrest.

Nina Reynolds, Lincolnshire

Next issue: Loneliness affects us all from time to time. We offer tips on coping. Plus: Keeping active with a pacemaker, who’s in hospital and deliciously healthy Christmas treats

Paws for thought

I just wanted to share this picture of my dog Monty with the last issue of Heart Matters. He loves the front cover, and I really enjoy the magazine too.

Nina Reynolds, Lincolnshire

Heart Support Groups

The May/June issue of Heart Matters ticked so many boxes of my own experiences over the past seven years since I suffered a cardiac arrest.

Nina Reynolds, Lincolnshire

Don’t despair

About 12 years ago, I started suffering symptoms of Prinzmetal’s angina. I became accustomed to symptoms of unstable angina, resistant to treatment, for the following decade. Then I had a heart attack and a stent insertion, performed with incredible rapidity at Hammersmith Hospital.

Since then, my heart muscle doesn’t pump as well, and it has been a battle to control my angina – rather like fine-tuning a temperamental engine. It’s been a formidable challenge, both physically and to morale. But I have had superb care from Hammersmith Hospital and my GP practice.

To others in my position, I would say – don’t despair. The waves are high and choppy at times, but it is amazing how you can weather them all with a team behind you, delivering cardiac research-based care, to a standard of excellence.

Alison Turnbull, London

Waiting for surgery

My husband is 68 and needs to have coronary artery bypass grafting. He gets angina from time to time, but aside from that, he feels quite well. We’ve been told the waiting time for the operation is a couple of months, and since then, my husband has stopped going out for walks and is scared of doing much in case he makes things worse. How can I help him?

Dr Mike Knapton says: This is a common situation in my experience in general practice. The wait for surgery, particularly surgery on the heart, can be a very worrying time. It is important for your husband to be as fit as possible before his operation, as this will improve his recovery. Walking is a great way to keep fit and it’s good for your husband to keep as active as his condition allows. Perhaps you could go for walks together, and this might allay his anxiety and improve his confidence.

If he does get angina while walking, it’s important he stops to take a break and uses his GTN spray in the way that his doctor has advised. If the frequency of angina episodes increases, it’s important he informs his GP; it may be that he needs to have his medication reviewed to optimise the management of his angina. If his symptoms get worse and cannot be controlled with medication, it is possible for his GP to contact the hospital to see if the date of the operation could be brought forward.

Other things that can help him to be as healthy as possible before surgery are to maintain a healthy weight, and if he smokes, it’s vital to quit.

Anticoagulants and atrial fibrillation

I’m a 75-year-old woman and I’ve had AF for 10 years. I’ve been taking aspirin for stroke prevention since my diagnosis, but my GP has recently told me that I’ll need to swap to warfarin or one of the new anticoagulants. Why have things changed?

BHF Medical Director Prof Peter Weissberg says: Atrial fibrillation (AF) is the most common heart rhythm disturbance and is the leading cause of stroke. New guidelines have been released to help manage AF better and prevent more strokes. The revised guidance, issued by the Government’s National Institute for Health and Care Excellence, now recommends that people with AF who are at significant risk of stroke are prescribed an anticoagulant such as warfarin, dabigatran etexilate, apixaban or rivaroxaban instead of aspirin to reduce their risk.

This is due to the growing body of evidence that warfarin and the newer anticoagulants are much more effective at preventing stroke than aspirin.

However, not all people with AF need to take an anticoagulant and each person should have their risk of both stroke and bleeding assessed. This will allow your doctor to make a decision on whether an anticoagulant is appropriate.

Read more elsewhere: If you would like to learn more about the new anticoagulants, such as dabigatran etexilate, apixaban or rivaroxaban, turn to our feature on page 14.

Your letters

We love to read your emails and letters, so keep writing: HMedia@bhf.org.uk or Heart Matters, British Heart Foundation, Greater London House, 180 Hampstead Road, London NW1 7AW

How to get in touch

Call the Heart Matters Helpline on 0300 330 3300 for more information. To suggest a question, email HMedia@bhf.org.uk.
Creating a buzz

Finding out he had dilated cardiomyopathy prompted Simon Morgan to live life to the full. Doireann Maddock hears his story and gets an expert’s view on the condition.

“Your outlook is it’s not how long you live, it’s what you put into your life,” says Simon Morgan. He has lived by that philosophy since discovering he has dilated cardiomyopathy (DCM), a heart condition he inherited from his father – and he has a rewarding business and a collection of beehives to prove it.

Simon, now 58, is the first person on his father’s side of the family to survive beyond his 50th birthday in 150 years. Growing up, Simon remembers his dad being told he had an enlarged heart, and when his father died suddenly at the age of 44, Simon, who was 14 at the time, was advised to have his heart checked out. “The tests were all OK, although the doctor said I should come back again when I was in my 20s. But of course I never did, because when you’re that age you feel invincible and it was the last thing on my mind.”

Most people who are affected by DCM remain well, but this wasn’t the case for Simon. “I’d been living a great life working as a chef all over Europe,” he says. “This took me into lecturing, and I was Head of Catering at Leicester College. This was back in 2002, and one of my hobbies was working as a football coach at the local primary school. I was running around the pitch one day with the kids and I collapsed. Luckily, someone phoned an ambulance.”

Paramedics rushed Simon to Leicester Royal Infirmary, where he spent about a month undergoing various tests that eventually diagnosed dilated cardiomyopathy. “It was a real bombshell,” he says. “Initially I felt quite well and the first six months were fine, but things started to worsen soon after. I was dizzy and lightheaded and had bad fluid retention in my legs and abdomen. I also had terrible muscle aches.”

Simon’s diagnosis prompted him to make a ‘bucket list’ of all the things he wanted to achieve. This included buying his dream bike, having an allotment and reintroducing honeybees into his village, Newbold Verdon in Leicestershire. He also began studying genealogy, which is how he discovered he is the first person on his father’s side of the family to live past 50. “I went all the way back to 1760 and a pattern of inherited dilated cardiomyopathy was clearly indicated,” he says.

Inherited condition

Dilated cardiomyopathy is a disease of the heart muscle where it becomes stretched and thin, the muscle walls are weaker and the heart doesn’t pump blood around the body as strongly as normal. It can be a genetic condition, meaning it may be caused by a mutation in one or more genes that can be passed on through families. DCM isn’t curable, although for many people, symptoms can be controlled by using medicines. Other options can include having a pacemaker to help improve the pumping efficiency of the heart and, if there is a risk of developing a dangerous heart rhythm, you may be fitted with an ICD.

After his first collapse, and when his heartbeat went dangerously low, Simon was fitted with a pacemaker and prescribed medication.

Within a couple of years of his diagnosis, Simon’s health deteriorated and he collapsed again. His heart was found to be in a dangerous and fast rhythm and he was fitted with an ICD.

Six months later, the ICD delivered its first shock. “It’s not a particularly nice experience, but it’s...”

You get more of a hunger and an enthusiasm for life when you have had a diagnosis like mine.

Heart Matters

bhf.org.uk
I had a clear blackboard and could fill it with whatever I wanted. It was an opportunity to build my life from scratch" better than being dead," Simon explains. “One of my consultants said to think of it as my guardian angel, which made a lot of sense to me. "The way I looked at things, I had a completely clear blackboard and I could fill it with whatever I wanted to," he explains. "It was an opportunity to build my life from scratch."

Enthusiasm for life
Among other things, Simon devoted his time to gardening and kept beehives on his two allotments. After about four years, he ended up with 90 hives. "You get more of a hunger and an enthusiasm for life when you have had a diagnosis like mine," he explains. "So I went a bit over the top with bees." Developing his beekeeping led to the launch of his business. “I decided to learn about importing beekeeping clothing and equipment and kept costs low so that I could help other beekeepers start up," he says. “What began as a hobby has grown into a half-a-million-pound business that employs five people and supplies beekeeping equipment worldwide.” Simon still keeps bees, but with the expansion of his business, he’s scaled it back to a more manageable 10 hives.

Simon worried he might have passed DCM onto his family. “I know that this type of problem often won’t become apparent until after the age of 30, so my kids have been diagnosed. It’s essential that affected families receive accurate assessment, diagnosis, treatment and support from specialists in a clinic for inherited heart conditions,” says Dr Behr.

"You can also find out more from the BHF Genetic Information Service on 0300 456 8383. Lines are open from 9am to 5pm Monday to Friday (charged at a rate similar to 01 or 02 calls)."

Dr Elijah Behr, Honorary Consultant Cardiologist and Electrophysiologist, St George’s Hospital, London, on the causes of dilated cardiomyopathy
When all other potential causes for dilated cardiomyopathy (DCM), such as coronary artery disease, valve problems and high blood pressure, have been excluded, in up to half of cases it may have been inherited.

The most common way it’s passed down in a family is through an autosomal dominant inheritance pattern, explains Dr Behr. “This is when you only need to get the abnormal gene from one parent in order to inherit the condition, so each child of a person who has inherited DCM has a 50/50 chance of inheriting the condition,” he says. "There are also a small number of people who can have a spontaneous mutation of a gene, resulting in them being the first person in their family to develop it."

Inherited cardiomyopathy may not manifest until adulthood, so for those with an affected parent, regular screening is important. The types of tests that are usually done include an ECG and echocardiogram, which look at the electrical activity and structure of the heart. "It may also be appropriate to have a genetic test to try to identify the specific genetic mutation that has caused the problem, although this should only be done at a specialist clinic for inherited heart conditions," says Dr Behr. The majority of people with DCM remain well, he adds. “With proper treatment and follow-up, most people can live a relatively normal life, and for the minority who are severely affected, medication, ICDs and a heart transplant can offer hope."

Cardiomyopathy explained
Cardiomyopathy is a disease of the heart muscle and there are three main types that can be inherited. How the heart is affected is different for each type. In hypertrophic cardiomyopathy, the muscular wall of the heart becomes thickened, whereas in dilated cardiomyopathy, the heart muscle becomes stretched and thin. In arrhythmogenic right ventricular cardiomyopathy, the heart muscle is gradually replaced by scar tissue and fat. All three affect the size and shape of the heart and can also affect the way the electrical system makes the heart beat. There is no cure for inherited cardiomyopathy and, in most cases, living with it will not affect the quality or length of life. “There are many effective treatments that can help to control symptoms and reduce complications, although a proportion of people will experience significant symptoms and greater changes to their lives,” explains Dr Elijah Behr (see right). Because cardiomyopathy is usually inherited, it’s important to seek clarification from your GP if a member of your family has been diagnosed. “It’s essential that affected families receive accurate assessment, diagnosis, treatment and support from specialists in a clinic for inherited heart conditions,” says Dr Behr.

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In June 2005, Simon finally got the call telling him a donor heart had become available. He made a good recovery post-transplant and decided to retire. He then began to work his way through his bucket list. “The way I looked at things, I had a completely clear blackboard and I could fill it with whatever I wanted to,” he explains. “It was an opportunity to build my life from scratch.”

"I was told that the average waiting time was several months and I couldn’t help thinking that I was already 11 months into my 12 months’ life expectancy,” says Simon. Along with his beekeeping, Simon is a keen gardener and also keeps chickens.
Dr Matt Wright finds out more from strokes, but a new... For over 50 years, warfarin has been the drug of choice in preventing AF-related strokes, but a new type of anticoagulant offers more options. 

**Drug Cabinet**

For over 50 years, warfarin has been the drug of choice in preventing AF-related strokes, but a new type of anticoagulant offers more options. Doireann Maddock finds out more from our guest expert, Dr Matt Wright.

**Novel oral anticoagulants**

**What is an anticoagulant medicine?**

An anticoagulant medicine makes the blood take longer to clot. It plays a vital part in helping to prevent stroke specifically caused by atrial fibrillation (AF), which is the most common heart rhythm disturbance in the UK.

AF increases the risk of stroke as it can lead to blood pooling in the heart, which increases the risk of clots forming. If these clots are ejected by the heart, they can block a blood vessel in the brain and cause a stroke.

Warfarin is the most commonly prescribed anticoagulant and, when used appropriately, it's an effective way of preventing AF-related strokes. But it requires frequent blood tests and careful monitoring.

**What are NOACs and who are they recommended for?**

The novel oral anticoagulants (NOACs) are a new class of anticoagulant drug. They can be used in the prevention of stroke for people with non-valvar AF, which is when AF is not associated with a problem in a heart valve. They can also be used in the management of venous thromboembolism, which is when a blood clot forms in a vein. Non-valvar AF is the type of AF that most people in the UK have and, like warfarin, NOACs can help to prevent clots from forming in the first place and help protect you from certain types of stroke.

**How many different NOACs are there?**

Several drug companies have been involved in the development of the NOACs. In the UK, dabigatran, rivaroxaban and apixaban are currently the ones most commonly prescribed to help prevent strokes in people with non-valvar AF.

**How do they work?**

NOACs interrupt part of the complex system involved in the formation of blood clots. This causes the blood to take longer to clot and reduces the risk of AF-related stroke.

All of the NOACs have been shown to be as effective at preventing strokes as warfarin. The main difference between NOACs and warfarin is that NOACs are less influenced by diet and other medications. This means a set dose of a NOAC can be prescribed and the doctor will know that the patient is protected against stroke as long as the drug is taken.

This is similar to the way most other drugs are prescribed.

**What are the potential side effects?**

The side effects depend on exactly which NOAC is being taken; for example, dabigatran can cause stomach upset. As with all anticoagulants, a serious complication that can happen is having a major bleed. It’s uncommon, and the chance of having a major bleed with a NOAC is either the same or less than it is if you are taking warfarin. But unlike warfarin, with the NOACs there is currently no antidote that you can give a person if they have a bleed. The treatment for a bleed will depend on where you are bleeding from and the extent of it. Some signs and symptoms of unusual bleeding can include unexpected bleeding or bleeding that lasts a long time; severe or unexplained bruising, or bruising that gets bigger without a cause; and red or black (tar-like) bowel motions. You should call your doctor if you have any signs or symptoms of unusual bleeding.

If there are signs of internal bleeding or the bleeding is severe, then call 999.

Although there is currently no antidote to NOACs that can be given, the anticoagulant effect fades about 12 to 14 hours after the last intake. There are also specific antidotes that are in the final stages of clinical trials, and these can completely reverse the effect of NOACs within minutes.

**What happens if you forget to take a dose?**

It’s essential that NOACs are taken every day. This is because they act for a much shorter period of time than warfarin, so if you miss a dose, you’re not protected. If you’ve forgotten a dose and it is less than half the time to the next scheduled dose of the drug, take the medicine as normal. If not, take the next dose at the scheduled time. It is important not to take a double dose of the medicine, as this could increase the risk of bleeding.

**Are there any obstacles to them being prescribed?**

The main obstacle is that NOACs are much more expensive than warfarin, even when the frequent blood testing associated with warfarin is taken into account. Doctors are also less familiar with them, as they have been prescribing warfarin for decades, compared with only a few years for NOACs. With time, NOACs will reduce in price and more doctors will be comfortable using them, but at present, they account for less than 1 per cent of all anticoagulant prescriptions.

**Find out more**

You can find out more about NOACs by downloading our free booklet. Medicines for the heart at bhf.org.uk/HMPublications or by calling 0870 600 6566.
Marching on

After a proud career in the army, Bill Overton refuses to be defeated by ill health. He tells Sarah Brealey how he enjoys life as much as he can.

Bill Overton, 72, takes 26 tablets a day for severe heart failure and other conditions – but he tries to stay positive. “I think a sense of humour is vital, to laugh at yourself and not to complain or allow things to get you down,” he says.

Bill, from Andover, attributes his determined attitude to his army background. He joined at 18 and served in Cyprus, Canada, Kenya and Germany. “It instils in you the need to be positive, to think of others more than yourself and to refuse to give up,” he says.

Four years later, he had a heart attack “out of the blue” and attended cardiac rehabilitation to help his recovery. Again, he passed the army’s fitness tests soon afterward, but three years later he had another heart attack and emergency heart bypass surgery.

Bill attended cardiac rehab again and changed his lifestyle, cutting out fried foods and alcohol and eating more vegetables. He passed the army fitness test once more and went on to be promoted to lieutenant colonel before leaving the army in 1992, aged 50. He then took a job managing funds in a doctors’ surgery “as a way of saying thank you to the NHS”.

But Bill’s medical problems continued, and he retired in 1995 for health reasons. Then, in August 2001, he suffered the first of five anaphylactic shocks – a severe allergic reaction that can be life-threatening. He still suffers from constant allergic reactions whose cause is unknown, but they are controlled with medication and occasional adrenaline injections.

Bill’s heart attacks have left him with severe heart failure. He has atrial fibrillation, diverticular disease, severe allergies, cellulitis and dermatitis. He also suffers from chronic pain and exhaustion, but he refuses to be beaten and says he aims for “a good quality of life”.

Every day, Bill takes his “daily cocktail” of medication. “I spend half an hour every Sunday morning preparing...”
Bill has to take 26 tablets a day. He uses a dosette box to prepare his weekly dose.

**Morning**
- 10mg amiodipine
- 2.5mg bisoprolol
- 75mg clopidogrel
- 150mg dabigatran
- 5mg desloratadine
- 125mcg digoxin
- 10mg enalapril
- 5mg desloratadine
- 150mg dabigatran
- 75mg clopidogrel
- 10mg amlodipine
- 20mg promethazine
- 20mg simvastatin
- 20mg temazepam

**Lunchtime**
- 50mg isosorbide mononitrate
- 50mg isosorbide mononitrate
- 20mg morphine sulphate
- 60mg morphine sulphate
- 25mg spironolactone

**Evening**
- 20mg dabigatran
- 20mg morphine sulphate
- 20mg morphine sulphate
- 20mg morphine sulphate
- 20mg morphine sulphate
- 20mg morphine sulphate
- 20mg morphine sulphate
- 20mg morphine sulphate

**People knock the NHS, but I owe my life to it**

he says. “He is so helpful and does everything he can to improve my quality of life. He gives me and my wife so much confidence.”

Bill also sees a pain consultant every six months, which he says is a great help. “People knock the NHS, but I owe my life to it,” he says. “I have met some wonderful people, including the surgeons who operated on me and the nurses who looked after me.”

Bill’s other major source of support is his wife, Liz, “an angel,” as he calls her. “I am so lucky she is the person she is,” Bill says. “I honestly feel it has been harder for Liz than for me. She’s had to sit for days on end waiting for me to come through; she’s had to ring family members and be the one who visits me in hospital every day. She has had to change her way of life as much as I have.”

Bill and Liz have been married for 36 years, and between them they have two children and four grandchildren. The couple do what they can to enjoy life together, despite Bill’s health problems. The heart failure means he is now limited to going out for lunch instead of in the evening, which means they can no longer go out in the evening, but once a fortnight they go out for lunch instead. “You adapt your life around it. You find your way of living and make it as enjoyable as you can,” says Bill.

Once a year, they treat themselves to a holiday in the Maldives. “It is my way of thanking my wife,” says Bill. “We book 11 months ahead and then she can look forward to it. I find the journey difficult, but as long as I can manage it, we are not going to give it up.”

It’s hard not to be struck by Bill’s ability to stay upbeat. He doesn’t rail against his health problems, but “gets on with life,” as he puts it, despite knowing that there is no cure for heart failure. “I look at it as a positive that - thanks to a few wonderful doctors and nurses – I am still here. With massive support from my wife and my cardiologist, I can make life worth living and not just a short life sentence. I just hope my story will inspire others to fight on and not give in.”
Acting on IMPULSE

Much of what we know about the heart’s anatomy is thanks to former BHF Professor Robert Anderson. He tells Sarah Kidner about his remarkable career.

CV

1966 Graduates in Medicine from the University of Manchester
1969 Pinpoints why a young patient died from surgical heart block
1970 Graduates MD at University of Manchester
1974 Appointed BHF Senior Research Fellow at the Cardiothoracic Institute, London, and Honorary Consultant at Royal Brompton Hospital
1979 Becomes Joseph Levy Professor of Paediatric Cardiac Morphology, supported by the BHF
1980–1999 Works at Royal Brompton Hospital. Deaths after congenital cardiac surgery drop significantly
1984 Awarded BHF Gold Medal for Research
1999–2007 Appointed Honorary Consultant at Great Ormond Street Hospital, London
2007–2014 Appointed Visiting Professonal Fellow at Newcastle University

Before the BHF was set up, only one in five babies born with congenital heart disease saw their first birthday, let alone their first day of school. Read all about it

The outlook for children with congenital heart conditions has improved greatly since then, something Professor Anderson is proud to have witnessed. “When I first started at Royal Brompton in 1974, 20 per cent of children with tetralogy of Fallot – the ‘blue babies’ – didn’t survive,” he says. “In 1999, I moved to Great Ormond Street Hospital and, at the turn of the century, we were losing far fewer young patients. “I can’t claim the credit for that,” he stresses. “The stuff I was doing was part of the developmental advances that we were making because we knew better how to diagnose and how to put in the stitches, but the overall advancement was worldwide and being made in all the supplementary disciplines, not least in intensive care.”

Support from the BHF

In 1974, Professor Anderson became BHF Senior Research Fellow at the Cardiothoracic Institute, London, and an honorary consultant at the Royal Brompton Hospital. Five years later, he became the Joseph Levy Professor of Paediatric Cardiac Morphology – again supported by the BHF – and was awarded the BHF Gold Medal for Research in 1984 on the basis of his overall investigations up to that time. “Throughout my career, the British Heart Foundation realised that the work that I was doing was important,” he says. “If I had not been supported by the BHF, all the work I did and all the differences that I made wouldn’t have happened.”

Global connections

A travelling fellowship from the Medical Research Council enabled Professor Anderson to go to Amsterdam and share his anatomic expertise with those studying the electrical events occurring during production of the heartbeat. “I formed a close collaboration with a pathologist called Anton Becker that helped expand my knowledge of the anatomy of hearts with congenital defects,” he says. “I continued to work with him for the rest of my career; we made a formidable team.”

The experience also helped to secure Professor Anderson a senior research fellowship at the Royal Brompton Hospital, London. “I was working at the cutting edge of developments in the diagnosis and treatment of children with congenital heart disease,” he recalls. “I was in at the deep end working with the cardiologists and the paediatric surgeons, who’d ask me to go into the operating theatre and share my expertise of where best to put stitches, for example.”

The experience also helped to secure Professor Anderson an invitation to work at the Cardiothoracic Institute, London, as Global Connections Research Fellow.

Bag It. Beat It

Your unwanted items fund life-saving research like Professor Anderson’s. Take a bag to your local BHF shop, or book a collection online at bhf.org.uk/free or by calling us on 0800 915 3000. Every bag you donate helps little heroes such as Cordelia Griffin get to school. Read all about it on page 18.

RESEARCH

and spent many hours on the golf course honing his swing. He jokes: “At the end of the first year, I’d decided anatomy was a nice life, and so I stayed!”

His subsequent MD thesis led him to study the anatomic origins of the electrical impulses of the heart. Around that time, a Liverpool colleague asked him to help with an autopsy of a child who had died from an interruption to the heart’s electrical system during surgery. “One of the risks in cardiac surgery is short-circuiting the delicate electrical pathways in the heart, which produces surgical heart block,” Professor Anderson explains. Heart block is when the electrical impulses of the heart are slowed down, delayed or blocked. In some cases, this can occur as a result of heart surgery. “In the Liverpool case, I could see the stitch encircling the pathways and was able to tell the surgeons exactly where they had gone wrong.”

His research sought to clarify the location of electrical pathways due to holes surgeons were finding in the heart as a result of congenital defects.

“I discovered an irregularity relating to a particular type of disease in the congenital work that I was doing,” he says. “In a particular type of hole in the heart, it was always thought that the electrical impulses ran underneath this hole. We showed that the pulses actually ran above it – so the surgeons were taking extreme care in the bottom part of the hole, when they should have been being careful in the top part of the hole. In making cuts in this particular area, the surgeons were often producing heart block and, up until then, they hadn’t known why.”

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Befor...
Advances in imaging technology are helping BHF-funded researchers fight heart disease. Sarah Kidner finds out how

G

ing a clear view of what’s happening in the heart and blood vessels is vital in the fight against heart disease. Technological improvements mean that BHF-funded researchers are advancing their understanding of what causes cardiovascular disease and how we can better prevent and treat it.

Your donations help to buy specialist equipment and to fund facilities such as the newly created Centre for Translational Cardiovascular Imaging at the University of Leeds. The BHF has contributed £1,893,264 to help create the facility, which forms part of the Leeds Multidisciplinary Cardiovascular Research Centre.

BHF Senior Research Fellow Professor Sven Plein, who leads the new imaging centre, explains how it works.

“The idea is to link the work of different groups at different stages of the research journey and to get research out of the lab quickly, so it can benefit patients,” he says. “The imaging equipment helps us to bridge those translational gaps.”

Specifically, that means bringing together researchers working in genetics, or with heart cells and blood vessels, and those who undertake research with patients. Here, Heart Matters looks at the different types of imaging techniques. It’s important to note that they are complementary and the best approach for a patient might be a combination of some of these.

PET-CT imaging

Meanwhile, in Edinburgh, BHF Clinical Lecturer Dr Marc Dweck has developed a test that may identify patients at high risk of heart attack using an imaging technology called PET-CT. “Heart attacks are usually caused when fatty plaques within arteries rupture. On top of the site of that rupture, a blood clot forms that can obstruct the artery, stopping the blood flow and causing a heart attack,” explains Dr Dweck. “We’re trying to pick out the plaques that are most likely to rupture before they cause a heart attack, something that’s been described as the Holy Grail of cardiology.”

This involves looking for specific characteristics of the plaques, including inflammation and the presence of microcalcification, which, Dr Dweck explains, is “the body’s very early attempts to heal high-risk areas of the heart arteries.”

PET-CT involves injecting a radioactive tracer, which is designed to pick up microcalcification, into patients before performing the scan, a technique that Dr Dweck’s team discovered when examining patients with narrowing of the aortic valve. “We first noticed something interesting was happening in a patient who happened to have had a heart attack the week before,” he says. “His PET scan was lighting up at the exact site where the plaque had ruptured and caused the heart attack. We’ve now confirmed this in a further 40 heart attack patients and also showed that you can pick up these high-risk lesions in patients who haven’t yet had a heart attack.”

The next step is to conduct widescale tests involving hundreds of patients to confirm whether PET-CT can be used to pick out those patients most likely to have a heart attack in the near future. For now, though, it remains a research test only.

“The next big question is, if we find one of these ‘hot’ plaques, can we change it and prevent the heart attack from occurring?” says Dr Dweck. “Plenty of new drugs are being developed with anti-inflammatory properties, but they’re very expensive, so we’ll want to target them at those at the highest risk of having a heart attack.”

Intravascular ultrasound

BHF Professor Martin Bennett has a keen interest in atherosclerosis. He and his team published the results of a BHF-funded study in the medical journal The Lancet demonstrating that MRI is an accurate and reliable method for detecting coronary heart disease.

“MRI is now recommended for testing people with heart disease, in part thanks to our studies,” he says. The UK is leading the way in the use of MRI of the heart, which has the advantage of not exposing patients to potentially harmful X-rays.

“In the UK, there are more than 60 centres that offer MRIs of the heart, and more heart MRI scans are done here than in most other countries,” says Professor Plein. He attributes that uptake, in part, to support from the BHF.

Professor Plein will specifically use MRI in clinical trials exploring how to diagnose heart disease in high-risk patients, including those with diabetes – a project the BHF is also funding.

“We’re looking at the different stages of diabetes and trying to identify patients who are also at risk of cardiovascular disease, so we can intervene early and treat them with the right medications,” he says.

Magnetic resonance imaging

Professor Plein’s speciality is magnetic resonance imaging (MRI), which has advanced significantly over the past decade. In 2012, Professor Plein and his team published the results of a BHF-funded study in the medical journal The Lancet demonstrating that MRI is an accurate and reliable method for detecting coronary heart disease.

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Imaging explained

CT angiogram

The image on the left, supplied by BHF Clinical Lecturer Dr Marc Dweck, shows a CT coronary angiogram of the heart. The coronary arteries are shown in red wrapping around the surface of the heart. White is for the left side of the heart, grey for the right side.

Angiogram

An angiogram (also called a coronary angiogram or cardiac catheterisation, pictured right) is a test that looks inside your coronary arteries and helps to diagnose coronary heart disease. It can show where any narrowings are in your coronary arteries and how severe they are, which can help your doctor decide what treatment you need.

Virtual histology intravascular ultrasound

This shows a high-risk coronary atherosclerotic plaque. The green is fibrous tissue, red is necrotic tissue and white is calcification.

Optical projection tomography

Professor Gillian Gray took the image (left), titled ‘The Broken Heart’, which reveals the remarkable 3D structure of an adult mouse heart. The image shown, based on optical projection tomography, allows us to look in more detail at structural changes caused by heart attack.

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The image on the left, supplied by BHF Clinical Lecturer Dr Marc Dweck, shows a CT coronary angiogram of the heart. The coronary arteries are shown in red wrapping around the surface of the heart. White is for the left side of the heart, grey for the right side.

Angiogram

An angiogram (also called a coronary angiogram or cardiac catheterisation, pictured right) is a test that looks inside your coronary arteries and helps to diagnose coronary heart disease. It can show where any narrowings are in your coronary arteries and how severe they are, which can help your doctor decide what treatment you need.

Virtual histology intravascular ultrasound

This shows a high-risk coronary atherosclerotic plaque. The green is fibrous tissue, red is necrotic tissue and white is calcification.

Optical projection tomography

Professor Gillian Gray took the image (left), titled ‘The Broken Heart’, which reveals the remarkable 3D structure of an adult mouse heart. The image shown, based on optical projection tomography, allows us to look in more detail at structural changes caused by heart attack.
The technique is currently only being used in research, but there is a possibility that VH-IVUS could be used to identify not just the presence of disease but specific plaques at higher risk of rupture. In treating these patients with medications, it might be possible to prevent heart attacks.

Surviving a heart attack
As well as helping to predict a heart attack, imaging could improve our understanding of what happens after someone suffers one, thanks to work by Dr Gillian Gray from the BHF Centre for Cardiovascular Science at the University of Edinburgh. "Increasingly, people are surviving the initial heart attack, but it leaves them with an injury to the heart muscle," she explains. "We're trying to look at how the body responds to that injury and manipulate it in order to reduce further damage."

In particular, Dr Gray is looking at the scarring that occurs following a heart attack, as additional healthy heart cells are lost around the damaged area during the process of scar formation, increasing the chance of heart failure. "Our research looks at how we can manipulate the processes involved in scar formation to enhance the growth of new blood vessels and therefore reduce the stimulus for the development of heart failure," she says. She uses MRI, ultrasound and optical imaging to look at injuries within the hearts of small animals. "We have pioneered the use of optical projection tomography to achieve a very accurate measure of the injury to the heart after a heart attack in three dimensions, and now we are developing that to better assess the blood supply to the injured heart muscle," she says. "That’s helping us to see that the interventions we’re using are working."

The next big question is if we can prevent a heart attack from occurring.

Experts on scanning technology

BHF Senior Research Fellow Professor Sven Plein: "MRI is now recommended for testing people with heart disease, in part thanks to our studies."

Dr Gillian Gray: "We have pioneered the use of optical projection tomography to achieve a very accurate measure of the injury to the heart after a heart attack."

BHF Clinical Lecturer Dr Mark Dweck: "We’ve shown you can pick up these high-risk lesions in patients who haven’t yet had a heart attack."

BHF Professor Martin Bennett: "VH-IVUS scanning technology tells us the percentage of the plaque that contains calcium, necrotic or fibrous tissue."

Tests and treatments

While CT and MRI are becoming increasingly popular in terms of imaging, tests such as ultrasound and angiogram are still the most commonly used in diagnosing heart conditions. To watch our videos of some common heart tests and treatments, visit bhf.org.uk/heart-health/tests.aspx. You may also be interested in our free booklet Tests for heart conditions. To download a copy, visit bhf.org.uk/HMpublications or call 0870 600 6566.

You can also read our article on imaging techniques from Dec/Jan 2012 at bhf.org.uk/HMimaging.
Back to BASICS

Good cooking starts with a versatile store cupboard, whether you’re packing kids off to university this September or brushing up on some skills, explains our Senior Dietitian Victoria Taylor.

A few simple recipes combined with some store cupboard ingredients is all it takes to cook a variety of meals. Our recipe cards feature some classic, easy-to-cook, basic recipes that can be adapted to form the basis of several different dishes.

For the more experienced cook, they are a handy reminder of how easily you can reduce the saturated fat and salt in a few old favourites. By having a supply of basic ingredients from all the food groups to hand, you can ensure a balanced meal is never far away. Here are my suggestions on what to keep in your cupboard or freezer.

Fruit and vegetables
Tinned, dried and frozen fruit and vegetables, as well as fresh, all count towards your 5-a-day. Keep a tin of tomatoes and vegetables tinned in water, such as sweetcorn, on hand and stock up the freezer with some frozen peas. Frozen berries are also good and cheaper than fresh when out of season. Dried fruit, such as raisins, apricots and sultanas, are a good standby snack and can liven up savoury dishes such as couscous or a rice salad. They also add a natural sweetness to breakfast cereals, porridge or yoghurt. In addition, stock up on fresh vegetables that keep for some time, such as onions and root vegetables.

Starchy carbohydrates
Dried foods, such as pasta, rice, couscous or bulgur wheat, are where the store cupboard comes into its own, and these are all good options that can form the basis of hundreds of different meals. Wholegrain versions of bread, pasta and rice provide extra fibre. For convenience (although it’s not necessarily the cheapest option), you can buy pouches of ready-cooked rice. These can be useful if you are in a hurry. But if you are going for the flavoured types rather than plain rice, check the nutritional information to make sure they are still low in salt.
**Heart Matters**

If you are melting cheese or for a salad. It's alternatively, try a reduced-fat mozzarella and cucumber dip.

**Milk and dairy foods**

If you are going to have cheese, opt for the cheaper, smaller variety, you can extend your store cupboard. Keep cooked meat and water and ready to use.

**Meat, fish, eggs and vegetarian alternatives**

Eggs make a great store cupboard staple as they are cheap, they last even if not refrigerated and are a good source of protein. Pulses, such as beans and lentils, are also good options whether you buy them dried to cook yourself or tinned in water and ready to use. While cured meats, such as ham or smoked fish, can be salty options, fish tinned in water, tomato sauce or unsaturated oil can be included in your store cupboard. Keep cooked meat and fish in the freezer as an easy, ready-to-eat addition to your meals.

You can also use your freezer to keep lean meat and fish in portions ready to cook. If you're on your own, multipacks, which are often a better deal than single servings, can be portioned up before freezing. Alternatively, use a whole pack to make large batches of meals in advance and then freeze leftovers in portions to make your own ready meals.

**Fatty and sugary foods**

Making sure you have the right fats on hand can help to keep your cooking healthy. Choose unsaturated oils and remember that a little goes a long way, as although these are healthier types of oil, they're still high in calories. As well as using oil for cooking, it makes a good salad dressing. Using different oils can help save money – opt for the cheaper, neutral-flavoured oils, such as sunflower, rapeseed or a lighter olive oil for cooking, and the more expensive ones with a more distinct flavour, like extra virgin olive oil or sesame oil, in dressings.

**Herbs and spices**

These flavourings aren't a food group, but no store cupboard is complete without some. Not only do they add variety to your meals, they will also help you to cut down on salt. You don't need a massive variety of options – black pepper, chilli powder, curry powder, oregano and rosemary are a good start and will help you to turn a pan of lean mince in tomato sauce into a bolognese or a chilli con carne. As well as the dried variety, you can extend your store cupboard to the garden or window sill and try growing some fresh herbs, which not only taste good but look good, too.

**How to get in touch**

Call the Heart Matters Helpline on 0300 330 3300 for more information. To suggest a question, email HMeditor@bhf.org.uk.

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**NUTRITION**

**ASK THE EXPERT**

Our Senior Dietitian Victoria Taylor answers your questions

**The lesser of two evils?**

**Q What’s worse for me: fat or sugar?**

**Victoria says:** This question has been a hot topic in the press, with arguments raging back and forth, but it shouldn’t be a choice between the two.

We have good evidence that there is a link between saturated fat and raised cholesterol levels, while there is also an issue in relation to the amount of sugar we eat and our weight. This means that, as well as cutting down on foods high in saturated fat and replacing saturated fats like butter with unsaturated fats like rapeseed, olive or sunflower oils, it’s important to keep an eye on the amount of added sugar we are eating, or that is in our drinks, so that we don’t end up consuming too many calories.

A healthy diet consists of foods from five different food groups: fruit and vegetables; bread, rice, potatoes; pasta and other starchy carbohydrates; meat, fish, eggs, beans and other non-dairy sources of protein; milk and dairy foods; and foods and drinks high in fat and/or sugar, and it’s better for us to focus our attention on the overall balance of these.

If we are eating too much of one food group, then it means there is less room for another in our diet. So rather than focus on cutting out, think about what you could be eating more of.

Swap your fatty and sugary snacks for fruit and vegetables and have good helpings of these at mealtimes too. Go for low-fat milk and dairy products, ditch the white starchy carbohydrates for wholegrain versions, and choose pulses and fish instead of processed or fatty meat, for example.

You want to eat well on your way to a healthy balance that is low in saturated fat and added sugar.

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**‘Healthy’ crisps, and caffeine’s effect on atrial fibrillation**

**Q My local supermarket has begun stocking ‘air-popped crisps’. Are these really better for me than normal crisps?**

**Victoria says:** Savoury snacks like these or baked crisps are lower in fat than standard crisps per 100g and are lower in calories, too. But you still need to keep an eye on nutrition labels and portion sizes.

A healthier version of the original product, it doesn’t mean they are the best choice in terms of nutrition and health. Rather than searching for a healthy crisp, enjoy the ones you like in small amounts less often and look for other snacks that will add variety and nutrients to your diet, as well as being low in saturated fat and salt. Tryplain popcorn, crunchy carrot sticks or unsalted nuts and seeds.

**Q I’ve read that caffeine is bad for your heart. I have atrial fibrillation (AF) and I’m wondering if I should limit my caffeine intake.**

**Victoria says:** Currently, the evidence suggests that moderate amounts of caffeine, equivalent to drinking four to five cups of coffee per day, has no effect on your risk of developing coronary heart disease. Research has also shown that consuming this amount of caffeine doesn’t lead to abnormal heart rhythms or cardiac arrhythmias (as you know, AF is a type of arrhythmia). However, some people are more sensitive to caffeine than others, and, for some, caffeine can trigger heart palpitations (the sensation of feeling your heart beating, whether that is normally, quickly, slowly or irregularly; some people describe feeling their heart pounding or fluttering). If this applies to you, then it would be sensible to limit your intake of foods and drinks containing caffeine. Decaffeinated versions of tea and coffee can help you to reduce your intake, or go for naturally caffeine-free choices like herbal teas and other sugar-free drinks, including water.

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**Dictionary**

Medical words, identified by a small symbol, are explained in plain English in our dictionary on page 49.

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**Try our recipes**

Pull out and keep our recipe cards for healthy meal inspiration from your store cupboard or visit bhf.org.uk/recipefinder.
A passion for RESEARCH

For many people, a career in cardiovascular research begins this September as they start their BHF-funded PhD. Sarah Kidner talks to a current student about her experience so far.

I think there are very few careers that can be as rewarding as research,” says Maeve Elder, 24, who is beginning her second year of a three-year PhD studentship at the BHF Centre of Research Excellence, Imperial College, London.

Maeve is studying the link between chemotherapy and the heart. Her passion for science stems from her natural curiosity: “I constantly ask ‘why’ and I really enjoy learning new things. In research, you learn new things every day.”

This questioning attitude is exactly what we’re looking for in the PhD students we fund. The hope is that we’re funding the BHF professors of tomorrow, while, in the meantime, students bring a fresh perspective to others’ potentially life-saving work.

Maeve’s supervisors share and encourage her love of research. “I was in the lab one day and my supervisor came running in,” she says. “I had just sent him some results and he wanted to discuss it further. Although he has been doing research for 40 years, he was just as excited as I was.”

Centres of Research Excellence

Maeve feels proud to be part of one of our six Centres of Research Excellence. “I feel very privileged to be able to use some incredible equipment and to work with high-calibre people,” she says.

During a recent visit from the Friends of Imperial College society, she led a group on a tour of the building and was struck by their enthusiasm. “I had to wrap up the session and tell the lecturers that their time was up! I spent the whole visit making mental lists of people I wanted to speak to again,” she says.

Each year the BHF accepts 48 per cent of student applications and, for those who manage to secure a place, the real challenge continues in the lab. “A PhD is hard work. The experiments are very demanding and they require blood, sweat and tears,” says Maeve.

She does her lab work two or three times a week, and on those days she starts early; it takes her about an hour to get set up and about three hours to do the experiments. She tries to get in at least two per day.

On days when she’s not doing lab work, Maeve analyses the large amount of data generated, prepares chemical solutions and tries to keep up with the current literature.

A valuable contribution

Maeve’s research focuses on the effect that chemotherapy agents have on the heart. While effective, these treatments can damage the heart and lead to heart failure. “The growing epidemic of cardiac problems in cancer patients relating to cancer drugs is a major clinical issue,” she says, referring to breast cancer survivors, where cardiovascular mortality overtakes cancer as the leading cause of death nine years after cancer surgery.

By studying mitochondria — tiny structures inside our cells that produce energy — Maeve hopes to discover some clues about why this happens.

Heart cells are especially reliant on the mitochondria because the heart uses a lot of energy when it beats. Longer term, Maeve hopes we might be able to work out how to protect the mitochondria and potentially prevent the damage to the heart.

But she’s aware that it will take time. “Research is a long process,” she says. “My work will be combined with the work of hundreds of others to aid the survival of people with diseases of the heart and circulation. I hope that in three years’ time I can contribute something worthwhile to that.”

Asked if she has any advice for this year’s student intake, Maeve says: “Surround yourself with enthusiastic and supportive people and do the experiments you find most interesting. You only get to do a PhD once, so try to make the most of it.”

Worried about chemo?

For all people with a cancer diagnosis, the primary goal is to treat the cancer and, for most, the benefits of chemotherapy and modern cancer therapies will considerably outweigh the risks.

The side effect of cardiotoxicity is rare with some chemotherapy drugs but more common in others, depending on the particular drug prescribed, doses delivered and other factors such as any pre-existing heart problems.

Before you have chemotherapy, your cancer specialist should discuss the risks and benefits for you as an individual. However, if you or a loved one have any questions or concerns about cancer treatments, call the free Macmillan Cancer Support line on 0808 808 00 00 or visit macmillan.org.uk.

Macmillan Cancer will soon be providing a specialist guide on heart health for cancer patients that has been written in collaboration with the BHF and with the guidance of Dr Alexander Lyon.

Our £11.9 million donation to Imperial College

Imperial College is one of six Centres of Research Excellence funded by the British Heart Foundation and has been awarded £11.9 million worth of research funding. PhD candidate Maeve Elder’s supervisors are Professor Sian Harding and Dr Alexander Lyon, a BHF Senior Lecturer who has a special interest in heart failure and the cardiac complications of anti-cancer therapies.
Linda Bartle was on her way to work when she started to feel chest pains as she ran up the steps at Leeds station to catch her train. “I knew the signs of a heart attack, but thought it couldn’t be happening to me,” she says.

Instead, she assumed the pain was caused by the exertion. She caught the train and rested for the 20-minute journey, but the pain got worse and spread down her arm, too.

Linda, 64, who lives in Stockton-on-Tees, is a senior caseworker for Advance, the trade union for Santander employees. She was on her way to a meeting in Bradford that morning last December. When she arrived, Sharon Adamson, the manager she was meeting, immediately spotted something was wrong, and she and the first aiders called an ambulance. “I feel like they saved my life,” says Linda. “They don’t think of it, but they went the extra mile to help me.”

When Linda got to hospital, she was in shock and very scared. “It was like a bad dream, except the pain was real,” she says. “Surely heart attacks happen to other people, I thought. I’d always been fit and healthy – I’d never even been in hospital. I asked the nurses whether I was going to die, I needed to know what to tell family and friends.”

The nurses and doctors reassured Linda and explained what would happen to her and the tests she was going to have. She was in hospital in Bradford for a week, a long way from her family in Teesside. “I’ll never forget the people who kept me going,” she says. “It’s everyone: first aiders, paramedics, doctors and nurses; even Denise the auxiliary, who always had time for a chat. I never felt alone; I knew I was being cared for.”

Having friends and family around her has made it easier for Linda Bartle to recover after her heart attack.

Having friends and family around her has made it easier for Linda a battle to recover after her heart attack.

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Having friends and family around her has made it easier for Linda Bartle to recover after her heart attack.

A helping hand

Friends, family and colleagues have all been there for Linda. She was deeply touched when Emma Porter, Employee Relations Manager at Geoban UK (part of the Santander Group), visited her in hospital. “She brought me a card and flowers and everything I needed – a nightie, toothbrush, soap and comb, things that helped me to feel normal,” she says. “She’d thought of everything. That’s what gets you through something like this: other people around you.”

Following her recovery, Linda had a gradual return to work, working part-time at first, travelling less and taking on less-complex cases until she was fully back on her feet. She says: “My colleagues at Advance were a big help. They sent me flowers and everyone phoned and sent cards, and they were really good about supporting me when I returned to work.”

Linda also had lots of support from friends and family, including her daughter Angela and her brothers, sister and sister-in-law. As Linda puts it: “You need to have a heart attack to include pain or discomfort in the chest that doesn’t go away. The pain may spread to the left or right arm, or to the neck and jaw. You may feel sick or short of breath. If you think that you or someone you are with is having a heart attack, call 999 immediately. Sit down (or sit the person down) and keep calm. If the person is not allergic to aspirin, give them an adult aspirin tablet (300mg) to chew. If there is one easily available. If you don’t have an aspirin to hand, or if you don’t know if the person is allergic to them, just get them to rest until the ambulance arrives.”

Heart attack – know the symptoms

The symptoms of a heart attack can include pain or discomfort in the chest that doesn’t go away. The pain may spread to the left or right arm, or to the neck and jaw. You may feel sick or short of breath. If you think that you or someone you are with is having a heart attack, call 999 immediately. Sit down (or sit the person down) and keep calm. If the person is not allergic to aspirin, give them an adult aspirin tablet (300mg) to chew if there is one easily available. If you don’t have an aspirin to hand, or if you don’t know if the person is allergic to them, just get them to rest until the ambulance arrives.”

Having friends and family around her has made it easier for Linda a battle to recover after her heart attack.
I believe it now. “It’s a Wonderful Life. Despite everything that you come out the other end. Things do get better. “You can deal with it, “ she says. “You will get to realise that a heart attack doesn’t have to be the end of your life. “I’m not that happy about it, but I do take comfort of how to order.

Support from the BHF
Linda has had a lot of support from the BHF, including Heart Matters and our booklets. “Heart Matters is so good,” she says. “I like to read all the positive stories of real people. I also read every one of the booklets; they are really good. They helped me to understand what happened to me and what I can do to prevent it from happening again.”

You might be interested in our free booklets Heart attack, Cardiac rehabilitation and Primary angioplasty for a heart attack. See page 50 for details of how to order.

Go online for tips on how to support a loved one who’s had a heart event and to read more of Linda’s story. Visit bhf.org.uk/HMLinda.

The people who were there for Linda

The help and support Linda received from those around her made all the difference

The friend’s story
“To say Linda’s heart attack was a shock was an understatement,” says Gerry Moloney, Assistant General Secretary of the Advance union and a friend and colleague of Linda’s. “She had seemed in such good health. It makes you realise that heart problems can happen at any time.

As a union, we tried to be there for her; people visited and phoned her, sent flowers and cards. We wanted her to know she was very much in our minds. It was the least we could do. Linda has always been there for colleagues and for me when I’ve needed help or advice. She’s always the first person to help, and she has helped hundreds of our members in her career.

“Linda is a lovely, warm and genuine person. She has such a positive mental attitude and I think that helped in her recovery. I’ve got so much praise for the medical teams who treated her and for the support from the BHF. When something like this happens, you realise how important things like Heart Matters are for the support and for the information about healthy lifestyles and preventing heart disease.”

The manager’s story
“On the day of Linda’s heart attack, she was visiting our office to support me with some employee announcements we were making,” says Sharon Adamson (below, left), Business Manager at Geoban UK. “When I went down to meet her, it was obvious that she wasn’t feeling well. She told me she had pains in her chest and down her arm. My dad had a heart attack a few years ago, so I recognised the symptoms and knew you have to take this kind of thing seriously. I went and got the first aider, who called 999 and explained the symptoms to the person on the other end while I stayed with Linda.

“Linda kept apologising and saying she would be all right. I told her that if we didn’t do something to help, I would feel terrible, and that she needed to be checked over. I tried to reassure her. Once the paramedics arrived, I left Linda with them and the first aiders.

“After Linda came out of hospital, she came in with cards and presents for me, Giverny and Mahia, the other first aider who was there for Linda. I still have the card on my desk. “

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Looking up
Linda says that she now feels “great” and wants to get on with her life. “I don’t want my heart attack to get me down or change me. I don’t believe in asking ‘Why me?’”

As my husband Raymond used to say: ‘Why not me?’”

“Linda is a lovely, warm and genuine person. She has such a positive mental attitude and I think that helped in her recovery. I’ve got so much praise for the medical teams who treated her and for the support from the BHF. When something like this happens, you realise how important things like Heart Matters are for the support and for the information about healthy lifestyles and preventing heart disease.”

The first aider’s story
“I had never met Linda before the day Sharon came to fetch me to help,” says Giverny Bizzell (below, right), Functional Support Analyst and first aider at Geoban UK. “She seemed shocked, so I just tried to calm her down. I asked her if she had any chest or arm pain or if her fingers were tingling. When she said yes, I knew we had to call the ambulance straight away. Linda wasn’t keen, but I explained that I needed to know I’d done the right thing.

“I stayed with her while we waited for the ambulance. I was trying to keep her mind off what was happening. When the paramedics came, they did an ECG, which they thought looked normal, but decided to take her to hospital as a precaution.

“I didn’t hear any more for a couple of days, so to be honest I thought everything was probably fine. I was surprised to hear she’d had a heart attack.

“It was all quite emotional. That sort of thing doesn’t happen to you every day. I’d recently been trained in first aid, which was really good. It’s so useful to know what to do in an emergency.”

In the next issue
People you’ll meet in hospital and how to get the best from them.
No one looks forward to spending time in hospital – but there are things that can make it a lot better, as Sarah Brealey explains.

Being in hospital can be a trying experience, but small things, like how you’re spoken to by the people looking after you, can make all the difference to how you feel about your stay. We talked to patients and experts to produce this illustrated guide to good practice in hospital and beyond. Although their recommendations are different, many of them are to do with involving patients – and their loved ones – in their care, making them feel that their views matter and making sure they understand what’s happening to them. If you don’t get the care you expect, there are ways to get it put right – see the box opposite for more.

**You should be treated as a person, not a condition**

Healthcare professionals who make eye contact and talk to you, rather than about you, can make a big difference to how you feel about your treatment. Dr Havi Carel, philosopher and author of the book Illness, says: “Treating people, not bodies, is what medicine is about. Health professionals need to involve people in their own care, including decision making, and frequently ask if they are OK and provide information and reassurance.”

**You should be helped to manage your own care**

If you have a long-term condition, you’ll spend much of your life managing it with the help of a healthcare professional, so it’s important you feel informed. You’re entitled to ask for copies of documents such as test results or scans, and health professionals should help you understand what these mean if necessary. Dr Mike Knapton says: “Supporting people to understand their condition helps to improve outcomes, reduces unnecessary anxiety and provides a better experience of care.”

**Your family should be involved**

Family members should be encouraged to support you in hospital. Last year, Liverpool Heart and Chest Hospital launched a scheme in which family and friends can choose to help with things like mealtimes or physiotherapy. Visiting is allowed at any time, and there are facilities for relatives to stay overnight.

Sue Pemberton, Executive Director of Nursing, says: “It increases safety, because families are an extra pair of eyes. They can give emotional support, and often they like to be involved.”

**You should have enough to drink**

Water or other drinks should always be available, and patients should be given help with drinking if needed. Lyn McIntyre MBE, Deputy Nurse Director – Patient Experience at NHS England, has been working with hospitals on this issue for several years.

“Hydration is as important as nutrition, because it can reduce the risk of urinary tract infections, falls and pressure ulcers,” she explains. “Some hospitals use charts showing how many cups they have drunk.”

**Your healthcare professionals should introduce themselves and explain who they are**

Kate Granger is a doctor and a terminally ill cancer patient. While she was in hospital last summer, she noticed that many staff members did not introduce themselves before they delivered her care. She set up the #hellomynameis campaign on social media to remind healthcare professionals of the importance of introductions. “It is about recognising patients as people, making a human connection, building trust and the beginning of providing truly compassionate care,” she says.

**Here are your results...**

**Your family should be involved**

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**You should leave feeling informed**

You should go home from hospital at the right time: when you are stable and fit to leave and when any follow-on care you need is in place. The British Medical Association’s patient liaison group has produced a report on hospital discharge, including a checklist to help patients ensure they have everything they need before leaving. Group Chairman Catherine Macadam says: “Discharge planning needs to start as soon as someone comes into hospital. Patients need to be kept informed about any delays or changes.”

**Get involved**

Not everything will always go smoothly in hospital. If it doesn’t, Dr Havi Carel says that explaining your point of view as a patient can help. “For example, ‘I’ve been fasting overnight and have been sitting in the waiting room for 40 minutes – please could you help me get the blood tests done quickly so I can eat and drink.’ This explains why you are asking for attention.” She adds: “It’s important to give feedback when things are done well, too.”

Raising an issue early with someone in the department (like the ward manager or senior nurse) is usually the quickest way to resolve it. You can also make a formal complaint – most hospitals will have a patient advice and liaison service (PALS) that can help.

If you’re interested in influencing heart health services, you might want to join our Heart Voices network. There is a huge range of activities, from getting involved with your local NHS trust to developing a new patient resource or joining a national committee. Visit bhf.org.uk/heartvoices or email heartvoices@bhf.org.uk for more information.
This September, we’re asking you to Bag it. Beat it. and donate bags of your unwanted items to BHF shops to help fund our life-saving research.

Sarah Brealey meets some of the heroes who help turn your donations into money to help power our life-saving research.

This is the story of Norma West, one of our backroom heroes, who is responsible for sorting some of the jewellery you donate.

Norma West

Norma West (above) has volunteered most days of the week at the BHF shop in Reading for the past 12 years. She began tagging and sorting in the store room and went on to work on the till and even run the shop on Sundays. Her speciality is jewellery, which she sorts, prices and displays to its best advantage.

Last September, Norma, 68, was admitted to hospital with bone cancer. She spent three months in hospital and a further five months recovering at home.

Over the past 12 years, it has been a big part of my life

She had an experimental treatment that put the cancer into remission but left her unable to use her arms and legs. Slowly, Norma had to build up her strength and learn to walk again.

While recovering at home, Norma continued to sort the jewellery for the BHF shop. She says she enjoyed being able to do something positive. “Being stuck indoors when I was ill drove me mad,” she says. “Sorting the jewellery gave me something to do. Some of it is all tangled, and I find it very therapeutic undoing it – I can spend hours just getting a knot out of a chain.”

Norma has now returned to work in the shop even though she needs to use a walking stick and can’t stand up for long periods. “I was so glad to be back,” she says. “Over the past 12 years, it has been a big part of my life.”

Working in the shop has also given Norma more confidence. “I was quite shy when I first started,” she says, “but now I have made lots of friends. The customers are brilliant.”

Not surprisingly, Norma is a big jewellery fan, and some of her favourite necklaces have been bought in the BHF shop. “I would rather do that than buy new,” she says. “And whenever I visit another town, I always go into the BHF shop to see what they have.”

Fix it. Beat it:

Diane Irons, 65, spends a day and a half each week volunteering in the BHF shop in Market Harborough, Leicestershire, sorting the donated toys. When she goes home, she takes bags of unsorted toys with her.

She washes the toys and dolls, repairing them or making new clothes if necessary, and makes sure that puzzles have all their pieces, games have all the right instructions and there are no parts missing. Thanks to Diane’s hard work, the toys look their best and bring in as much money as possible. “I love the toys,” she says. “I get a lot of satisfaction from seeing things sold.”

Volunteering has become a family affair. Diane’s husband Matthew helps her at home by replacing batteries. He’s also refurbished a donated dolls’ house before it was sold and restored a pirate ship that had parts missing – he even whittled a new figurehead.

Grandson Charlie, seven, loves Lego and sorts through all the Lego that is donated, making sure no pieces are broken and it’s ready to be sold.

Diane has created a new toy section in the shop, which led to a rise in the number of toys donated, and recruited her sister Debra to help. She now volunteers every week alongside Diane.

Diane started volunteering 11 years ago after she moved to Market Harborough to be near her daughter: “It’s the best thing I’ve ever done. I have made lots of lovely friends; they are a very nice bunch.”

Steam it. Beat it:

David Archer

There isn’t much that David Archer doesn’t do in the Welwyn Garden City shop. He sorts the donated goods, steams clothes, prices and tags items, as well as rotating the store stock and helping out with DIY.

David, 50, came to the shop three years ago on a Jobcentre placement. He had previously been unemployed for five years and was feeling depressed and frustrated. He now volunteers five days a week. “It has really lifted my mood,” he says. “You feel like you are contributing and making a difference. No day is the same and you get the chance to develop your retail skills, as well as communicating every day with new people. It has given me a purpose in life.”

David has an extra motivation for the work he does, as his father William had a heart bypass 10 years ago. The BHF has also helped David achieve an NVQ in customer service last year.

Shop manager Lee Isaac says: “We rely on him totally. He is an extremely valued member of our team.”

How you can help

To help us fight back against congenital heart disease, fill a bag with good-quality clothes, shoes, books, handbags, DVDs, CDs, bric-a-brac or children’s toys and bring them to your local BHF shop.

To take advantage of our collection service, call us on 0800 915 3000. For furniture and electrical items, visit bhf.org.uk/free.
Many of us have fond memories of playing team sports at school and the camaraderie both on and off the pitch. Even if you didn’t play team sports at school, or haven’t played since, picking these up in later life can be a great way to expand your social network and help you build up to the minimum 150 minutes of moderate-intensity physical activity we should all do every week.

“It keeps you motivated, as you fall into a routine of going to regular training sessions,” says BHF Physical Activity Specialist Lisa Purcell. “If you’re doing something on your own, it’s easy to skip a session. Team sports are brilliant because of the social side is great too; I’ve made lots of really good friends.”

Dave, 59, was diagnosed with angina in 2009 after experiencing breathlessness while on holiday. His doctors initially told him he’d need a stent, but when they went to fit it, they decided he would need a quadruple bypass instead. He feared it would mean the end of his career playing competitive hockey for Cirencester. Many of his teammates visited him while he was unable to play. “They supported me by encouraging me to get fit,” says Dave, who returned to playing hockey 12 weeks after surgery, with his surgeon’s consent.

Six months after his surgery, he was selected for the over-55s England team. “It took about two and a half months before I felt like my old self again,” he says.

“I didn’t think I would get back to the standard that I had achieved before my surgery. However, I was determined to get myself back to fitness as soon as possible.”

Dave played in the 2010 FIH Masters Hockey World Cup in Edinburgh and again in this year’s tournament in Rotterdam, in which the over-55s beat the Netherlands in the final. “To play for the veterans and win the World Cup is amazing,” he says.

In it together

Playing as part of a team can also help expand your social network. “Recreational sports are particularly good because of the social support and the confidence they give you,” says Purcell.

Lydia Plaza, 19, is a case in point. When she started at the University of Northumbria, she joined the rugby team. “It makes me want to eat healthily and look after myself,” says the Derby native. “The social side is great too; I’ve made lots of really good friends.”

Almost 200 Barnsley men have so far taken part in the Fit Reds programme, run by the Barnsley FC Community Sports and Education Trust and supported by the BHF’s Hearty Lives funding scheme. Barnsley has a high incidence of cardiovascular disease, with the average man dying two years earlier than the national average of 75. The eight-week Fit Reds programme targets men over 35, giving them the opportunity to make a positive lifestyle change. Participants have seen huge reductions in their waistlines, blood pressure and weight.

Organiser Lee Thompson says: “We get a lot of word-of-mouth referrals and some of our participants say it has been life-changing.”

One participant, Mark Simpson, says a family history of high blood pressure, stroke and diabetes, and the sad death of a friend at just 46, spurred him to join Fit Reds. “The little voice in my head told me I needed to get fit,” he says. “I recently visited my GP and they stopped one of my tablets as my blood pressure and diabetes, and the sad death of a friend at just 46, spurred him to join Fit Reds. “The little voice in my head told me I needed to get fit,” he says. “I recently visited my GP and they stopped one of my tablets as my blood pressure went to fit it, they decided he would need a quadruple bypass instead. He feared it would mean the end of his career playing competitive hockey for Cirencester. Many of his teammates visited him while he was unable to play. “They supported me by encouraging me to get fit,” says Dave, who returned to playing hockey 12 weeks after surgery, with his surgeon’s consent.

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Lydia, who studies international business management and Spanish, goes to the gym regularly and attends rugby training twice a week. She also suffers from occasional episodes of a rapid heart rate that can last for hours. When she was first diagnosed, Lydia worried she wouldn’t be able to continue with rugby, but the cardiologist assured her that her episodes of rapid heart rate were not life threatening or related to physical activity. Lydia is currently being assessed to decide whether she will need regular medication.

"They're some of my best friends. " says Lydia. "We all go to the gym and training together," she says. "They're some of my best friends."

Like Dave, Lydia says her teammates have been a fantastic support network. "We all go to the gym and training together," she says. "They're some of my best friends."

The lucky winner will enjoy a luxury break for two there, courtesy of Heart Matters.

**Special offer**

Even if you are not our lucky winner, you can still save over 33 per cent on a perfect weekend retreat at Wyck Hill House, paying just £72.50 per person per night for a three-course set menu dinner, overnight accommodation in a Garden Room, full English breakfast and 20 per cent off pre-booked spa treatments.

**The fabulous prize includes:**

- Two nights’ accommodation in a spacious suite
- Champagne on arrival
- Full English breakfast daily
- A three-course set menu dinner on one evening
- Afternoon tea on one day
- A back, neck and shoulder massage per person
- A manicure or pedicure per person
- A 20 per cent discount on pre-booked spa treatments.

For further hotel information, visit wyckhillhousehotel.co.uk.

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**Where to find a team near you**

**Hockey**

- England Hockey
  - hockeynation.info
  - 0844 249 1999
- Scottish Hockey
  - scottish-hockey.org.uk/play/find-a-club.aspx
  - 0141 550 5999
- Welsh Hockey
  - hockeywales.org.uk
  - 029 2033 4909
- Ulster Hockey
  - ulsterhockey.com/Clubs-6548.html
  - 028 9070 1417

**Rugby union**

- Rugby Football Union
  -.rfu.com/takingpart
  - 0871 222 2120
- Scottish Rugby Union
  - scottishrugby.org/get-involved/play/find-a-club
  - 0131 346 5000
- Welsh Rugby Union
  - wru.co.uk/engi/club/index.php
  - 0844 249 1999
- Irish Rugby Football Union (Ulster Branch)
  - ulsterrugby.com/domestic/clubs/clubdetails.aspx
  - 028 9049 3222

**Football**

- The English Football Association
  - thefa.com/findclub
  - 0844 980 8200
- The Scottish Football Association
  - scottishfootball.cfm
  - 0141 616 6000
- The Football Association of Wales
  - faw.org.uk/club-directory
  - 029 2043 5830
- The Irish Football Association (Northern Ireland)
  - irishfa.com/domestic/club-guide
  - 028 9066 9458

**Take up a team sport**

If you are interested in taking up a team sport, start by contacting your local sports centre or sports club to find a team near you. For a full list of national organisations covering rugby league, netball and rowing across the UK, visit bhf.org.uk/HFHteamsports.
Reaching new heights

For the past 20 years, BHF fundraisers have braved some of the world’s toughest physical challenges. Lisa Kjellsson maps their adventures.

The programme of challenges launched in 1994, and since then more than 3,000 adventurous supporters have taken on overseas challenges in more than 90 destinations from Iceland to India. Participants have ranged in age from 18 to 70, with the oldest being a determined climber who beat the rest of his group to the Everest Base Camp. “Our fundraisers are all so inspiring,” says Kate Favell, World Experiences Project Manager. “Some of them work full time and yet they commit nearly all their free time to raising funds and acting as ambassadors for us while training for the challenge.”

To celebrate the 20th anniversary of the programme, we’ve launched two new challenges this year: a Kenya Rift Valley bike ride and a Dala Llama trek in the Himalayas. “We hope to continue taking our supporters on a host of memorable adventures and raising much needed funds for our research,” says Kate.

Experience of a lifetime

One long-standing BHF supporter who has completed three overseas challenges so far is Barrie Howes, 51, an engineering instructor from Higham, Kent. Barrie had surgery on his aorta (the largest artery in the body) in 2006. Two years later, he was well enough to trek to Peru’s Inca site, Machu Picchu, followed by Everest Base Camp in 2012 and the Sahara Desert in February this year. “I had been monitored for years, as I have Marfan syndrome (a disorder that affects the body’s connective tissue) and was told I couldn’t go mountain climbing because of the high altitude,” he says. “So when I was given the go-ahead a year after the operation, I couldn’t have been more excited.”

For the Machu Picchu trek, Barrie set himself a fundraising target of £4,000, which was the minimum required, but ended up raising more than £5,000 by organising a series of local events, including a dinner with a raffle at his village pub.

He describes the trek as one of the best experiences of his life. “I think it’s important to take time out of our busy lives and do something like this,” he says. “You meet people from all walks of life, which is good, and there are also times when you are just walking alone with your thoughts. I knew straight away I’d want to take on other challenges in the future.”

Reaching Everest Base Camp four years later was “fantastic”, he says. “It was

£10 million was raised during the past 20 years

FUNDRAISING

Going the distance

New friendships formed and £9,800 raised on the Everest trek

Kate Hughes, 53, lost her husband Dan to heart failure in 2011. This November she will be rafting down the Zambezi River in his memory. World experiences: Everest trek, Sumatran jungle, Three Peaks Yorkshire. Memories for a lifetime: “I really bonded with the people I went on the Everest trek with, they are friends for life now.” Money raised: £9,300 for the Everest trek. Life-saving research: Could provide 357 hours of specialist care from a BHF nurse. justgiving.com/kate-hughes6

Climbed Kilimanjaro 18 months after open heart surgery

Keith Savidge, 42, had open heart surgery at 40 and climbed Kilimanjaro 18 months later. World experiences: Kilimanjaro, Three Peaks (England, Scotland, Wales). Driven to succeed: “I’m hoping to continue to help fund research into early detection of heart disease.” Money raised: £3,760 for Kilimanjaro. Life-saving research: Could fund 3,760 sterile disposable plastic flasks for growing cells in. justgiving.com/keith-savidge

£9,800 raised in total for treks on three continents

Victoria Tinson, 34, will cycle through Vietnam and Cambodia next year to celebrate her father, who has had open heart surgery at 18. World experiences: Peru trek and Uganda trek (October 2014). Driven to succeed: “This is an opportunity to see mountain gorillas and raise awareness of heart disease.” Money raised: £8,000 in total. Life-saving research: Could fund £3,650 for open heart surgery research. justgiving.com/victoria-tinson1

Determined to raise awareness of heart disease

Colette Stewart, 36, was diagnosed with a heart murmur and narrow valve as a child and had open heart surgery at 20. World experiences: Peru trek and Uganda trek. Driven to succeed: “I’m hoping to continue to help fund research into early detection of heart disease.” Money raised: £3,444 for Kilimanjaro. Life-saving research: Could fund £2,000 for the Peru trek. justgiving.com/colette-stewart

£3,800 for Kilimanjaro.

Money raised: £3,760 for Kilimanjaro. Life-saving research: Could fund 3,760 sterile disposable plastic flasks for growing cells in. justgiving.com/keith-savidge

Money raised: £9,300 for the Everest trek.

Memories for a lifetime: “I really bonded with the people I went on the Everest trek with, they are friends for life now.” Money raised: £9,300 for the Everest trek. Life-saving research: Could provide 357 hours of specialist care from a BHF nurse. justgiving.com/kate-hughes6

Reaching Everest Base Camp four years later was “fantastic”, he says. “It was

Barrie Howes has taken part in several overseas challenges, including the Machu Picchu trek.
choked, absolutely exhilarated. I thought of all the people who had supported me. It that I was able to take part in this.”

Barrie’s father passed away aged 28, when Barrie was a 10-month-old baby, due to unexplained heart problems, so raising money for the BHF means a lot to him. “It’s an opportunity to make the most of the second chance in life I’ve been given,” he explains. “The health benefits of taking part are enormous; it increases my stamina, helps me manage my weight and blood pressure and makes me eat more healthily.”

In memory

Susan Horwood, 44, a business owner from Aberystwyth, west Wales, is doing the Kilimanjaro trek this September to commemorate the 10th anniversary of her husband Mark’s death.

Mark passed away due to sudden arrhythmic death syndrome aged 38. He was otherwise fit and healthy and had never smoked. The family had just returned from a holiday in Australia when Mark died in his sleep. Left to care for their two little boys, who at the time were three and five, Susan says she got through the aftermath with support from friends and family and her local British Heart Foundation.

Now she wants to make her sons, Jac and Harri, proud by taking on a challenge that has helped prolong my father’s life and given us more time together. So I decided to challenge my fears, prove I can do these things and raise money for the BHF.”

In October, he’s doing the Tough Mudder obstacle course in Hampshire, again to raise sponsorship for us. “These are the first charity events I’ve done, and I’ve been totally putting myself out of my comfort zone,” says Matt. “But it makes you value being alive and hopefully will help others in the process.”

Glenn says: “I’m extremely grateful for the support I have had from everyone who has played a part in my treatment and care.”

JOIN THE FIGHT

● Set yourself a fundraising challenge
● Get friends and family involved
● Raise funds for our life-saving work

Challenging fears for a great cause

Matt Foreman is celebrating his 40th year by raising money for the BHF in daring ways

Matt Foreman turned 40 this year and decided to do something special to mark the occasion. He asked for donations to the BHF instead of birthday or Christmas gifts and has been undertaking a series of challenges, including a sponsored tandem skydive while on a business trip to Dubai and swimming with sharks at an aquarium in Cheshire.

Matt was motivated by the experience of his father, Glenn, 67, a retired firefighter. Glenn, from Salisbury, Wiltshire, has heart rhythm problems and severe heart failure as a result of a heart attack in 1999. Since then, he’s had five heart procedures, including having an ICD fitted, but still has trouble breathing and tires easily.

Matt, who lives in Salisbury with his wife and two daughters, says: “Myself and the family want to give something back in return for the research and treatment that has helped prolong my father’s life and given us more time together. So I decided to challenge my fears, prove I can do these things and raise money for the BHF.”

In October, he’s doing the Tough Mudder obstacle course in Hampshire, again to raise sponsorship for us. “These are the first charity events I’ve done, and I’ve been totally putting myself out of my comfort zone,” says Matt. “But it makes you value being alive and hopefully will help others in the process.”

Glenn says: “I’m extremely grateful for the support I have had from everyone who has played a part in my treatment and care.”

Inspired to raise vital funds?

To help Matt meet his goal of £2,500, visit uk.virginmoneygiving.com/MF74.

Walking to raise vital funds

Phil Leahy was out running when he started to feel unwell. He was 37 and was completely shocked to learn that he had viral cardiomyopathy. Three years later, his health deteriorated until he was so weak he could barely walk. Because of the shortage of donor hearts, he was fitted with an LVAD (an artificial heart pump), which allowed him to live a slightly more normal life for seven years, but there were numerous complications and infections along the way.

Last year, he was put on the urgent transplant list. He spent seven months in hospital waiting for a heart to become available. He received one on 2 November, more than five years after being told he needed a new heart.

Now 48, he says: “I can do so much more now. I am walking every day and riding my bike and started a little jogging.” It’s been tough on his wife, Janice, and sons Matt, 14, and Sam, 11, but they’ve rallied round. Janice is a volunteer with our Heartstart scheme, teaching life-saving skills to pupils at the local school, Southborough Primary in Kent.

In May, Phil, Janice and Sam completed our 13-mile Bewl Water walk and raised £289.

How to get involved

The World Experiences programme offers a series of overseas challenges in destinations off the beaten track. Each year there are approximately 10 events available through the programme.

Find out more at bhf.org.uk/world or by calling 0844 847 2789. Speak to your GP or consultant before undertaking new activities, particularly strenuous challenges such as these.

The registration fee is between £150 and £350 depending on the destination, and the minimum fundraising amount ranges from £1,100 to £4,000.

We advise three to six months’ training, which should include a range of activities like walking, cycling, swimming and all-round aerobic activity to increase your level of fitness and help prepare for the challenge. We recommend signing up to 12 to 18 months in advance to allow enough time to raise the funds and complete your training, but registration is open until three months before the start date.

European-based challenges typically last four days, whereas the longest challenge, the Everest Base Camp trek, takes 18 days.

We have a number of overseas challenges planned for 2014/2015, including an Everest base camp trek in March 2015 and a Machu Picchu trek in May or September 2015. For an interactive infographic showing stories from our world experiences, visit bhf.org.uk/WMWorldStories.
We want a change in the organ donation system to stop people dying unnecessarily. We explain what’s happening around the UK.

In average, three people die every day in the UK because they didn’t receive an organ in time.

We believe that the best way to address the organ donor shortage and help save more lives is to change the system in the UK from an opt-in system to an opt-out system. This means that all adults would be presumed to have consented to becoming an organ donor. Importantly, all adults would have the choice to opt out if they didn’t want to donate. Sixteen other countries around the world already have this opt-out system. Wales is due to join them next year, and there are calls for change in other regions of the UK.

We support what is known as a ‘soft’ opt-out system, which means that families play an important role in confirming the deceased’s wishes. Many charities and transplant surgeons support this system.

We also want to encourage more people to talk about organ donation with their families and friends. If your loved ones are aware of your views, it can help make a difficult decision at a difficult time easier.

If you want to know more, or to register as a donor, visit bhf.org.uk/transplant or call the NHS Donor Line on 0300 123 23 23.

Abdominal aortic aneurysm
An aortic aneurysm is an abnormality in the aorta (the main artery in the body) that leaks blood from its wall. This can lead to a heart attack or a stroke. It is more common in men over the age of 65. The risk of an abdominal aortic aneurysm increases with age and is caused by atherosclerosis (fatty material) within the artery wall.

Aortic arch
The aortic arch is the uppermost part of the aorta. It is where the coronary arteries branch off and supply blood to the heart muscle. The arch is divided into three sections: the innominate artery, the left common carotid artery, and the left subclavian artery.

Aortic valve
The aortic valve is one of the heart valves that prevents blood from flowing back into the heart. It is located at the base of the aorta, which is the largest artery in the body. The aortic valve has three flaps, or leaflets, that open and close to regulate blood flow.

Angina
Angina is a condition in which the heart muscle does not get enough oxygen. This can cause chest pain, shortness of breath, or other symptoms. The cause of angina is often atherosclerosis, which is a buildup of fatty material in the arteries. Angina can be caused by the plaque in the artery wall breaking off and blocking the blood flow to the heart muscle.

Atherosclerosis
Atherosclerosis is a disease of the arteries that causes a thickening and hardening of the artery walls. It is caused by the buildup of plaque (a combination of fat, cholesterol, and other substances) in the arteries. Atherosclerosis can lead to heart attacks, strokes, and other serious health problems.

Atrial fibrillation
Atrial fibrillation is a type of arrhythmia, or abnormal heart rhythm, in which the heart’s upper chambers do not contract rhythmically. It is the most common type of heart rhythm disorder and affects about 1 in 100 people in the UK. The symptoms of atrial fibrillation include a rapid and irregular heart rate, shortness of breath, and fatigue.

Blood pressure
Blood pressure is the force that the blood exerts against the walls of your arteries as it flows through your body. Blood pressure is measured in millimeters of mercury (mmHg) and is reported as two numbers. The top number is the systolic pressure, which is the pressure in the arteries when the heart contracts and pumps blood out. The bottom number is the diastolic pressure, which is the pressure in the arteries when the heart relaxes and fills with blood.

Cardiac arrest
Cardiac arrest is a condition in which the heart suddenly stops beating. This can happen if the heart becomes damaged or if the electrical signals that control the heart’s rhythm are disrupted. Cardiac arrest is a medical emergency that requires immediate medical attention.

Coronary artery disease
Coronary artery disease is a condition in which the coronary arteries become narrowed or blocked by fatty deposits. This can reduce blood flow to the heart muscle and increase the risk of a heart attack.

Diabetes
Diabetes is a chronic condition that affects how your body processes glucose, or sugar. In people with diabetes, the body doesn’t produce enough insulin or doesn’t use insulin properly. This leads to high blood sugar levels, which can cause long-term health problems.

Fenfluramine
Fenfluramine is a medication that was used to treat obesity. However, it has been linked to the development of a rare and potentially life-threatening cardiac condition called primary pulmonary hypertension (PPH). PPH is a condition in which the blood pressure in the lungs is abnormally high, which can lead to right heart failure and death.

High blood pressure
High blood pressure, also called hypertension, is a condition in which the blood pressure is consistently higher than the normal level. The higher pressure puts extra strain on your heart and blood vessels, and over time can increase your risk of having a heart attack or stroke.

Heart attack
A heart attack is a medical emergency that occurs when the blood supply to your heart is suddenly cut off. The heart muscle begins to die because it doesn’t get enough oxygen. Heart attacks can be caused by atherosclerosis, which causes the arteries to become narrowed or blocked.

Heart failure
Heart failure is a condition in which the heart can no longer pump blood effectively to meet the body’s needs. This can cause symptoms such as shortness of breath, swelling in the legs and feet, and fatigue. Heart failure can be caused by a variety of conditions, including high blood pressure, diabetes, and coronary artery disease.

Hypertension
Hypertension is a condition in which the blood pressure is consistently higher than the normal level. The higher pressure puts extra strain on your heart and blood vessels, and over time can increase your risk of having a heart attack or stroke.

Implantable cardioverter defibrillator
An implantable cardioverter defibrillator (ICD) is a small device implanted under the skin on your chest and connected to your heart by one or more wires (leads). It monitors your heart rhythm and can deliver a controlled electrical shock if you have a life-threatening abnormal heart rhythm.

Malignant hypertension
Malignant hypertension is a severe form of high blood pressure that can occur suddenly. It is often caused by a number of underlying conditions, such as kidney disease, blockage of the blood vessels, or damage to the blood vessels. Malignant hypertension can cause rapid and severe changes in blood pressure, which can lead to damage to the blood vessels and organs.

Tetralogy of Fallot
Tetralogy of Fallot is a serious heart abnormality. There are two main problems: the pulmonary valve is narrow and the muscle below it is thickened, and there is a large hole between the two main pumping chambers of the heart.
Use our booklets, DVDs and information sheets to help you improve your heart health and get support on living with a heart condition. To see the whole range of guides, order the Take heart (G5) catalogue

ORDER YOUR FREE GUIDES

Healthy eating and lifestyle

Be active for life (physical activity information for over-65s) G364
Coping with stress G187
Cut down on salt G160
Eating well G186/0214
Get active, stay active G12
Guide to food labelling G54
Healthy living, healthy heart (information for African Caribbean communities) G532
Healthy meals, healthy heart (South Asian recipes) G6
Keep your heart healthy HIS25
Looking after your heart (information for South Asian communities) G223
Put your heart into walking G26
NEW Risking it – short films designed to help you tackle risk factors bhf.org.uk/riskingit or DVD21
So you want to lose weight… for good M2
Stop smoking G118
Traditional foods – healthy dishes (African Caribbean recipes) G503
Your heart, our help G598
Women and heart disease M37

Living with a heart condition

An everyday guide to living with heart failure G275U
Angina HIS6
Atrial fibrillation HIS24
Blood pressure HIS4
Cardiac rehabilitation HIS23
Caring for someone with a heart condition HIS20
Coronary angioplasty HIS10
Diabetes and your heart HIS22
Having heart surgery HIS12
Heart attack HIS7/0314
Heart rhythms HIS14
NEW Heart to heart: heart disease and your emotional wellbeing G954
Heart transplantation HIS13
Heart valve disease HIS11
Implantable cardioverter defibrillators (ICDs) HIS19

Lifelines: heart surgery and after (DVD) DVD10
Living with heart failure HIS8
NEW Medicines for your heart HIS17
My progress record (a manual to keep important information about your medication, test dates and results) M92M
One step at a time – living with heart failure (DVD) DVD5
Pacemakers HIS15
Peripheral arterial disease HIS16
Physical activity and your heart HIS1
Primary angioplasty for a heart attack HIS26
Reducing your blood cholesterol HIS3
Returning to work with a heart condition HIS21
Statins (information sheet) IS66
Test for heart conditions HIS9
NEW The road ahead – your guide to heart tests and treatments bhf.org.uk/videos or DVD30
Warfarin (information sheet) IS67

Quick guides for patients

Our new series of illustrated guides cover 10 of the most common heart and circulatory conditions, tests and treatments. They provide short, digestible information and advice on a range of topics:

- Heart attack
- Stroke
- Atrial fibrillation
- Cardiac rehabilitation
- Atherosclerosis
- ECG
- Angiogram
- Angioplasty
- ICD
- Pacemaker

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Baked fish with white sauce

Fresh and simple fish fillets in sauce, plus three ways to vary it

**Preparation time:** 10 minutes
**Cooking time:** 15–20 minutes
**Serves:** 2

- To make parsley sauce, stir 1–2 tablespoons chopped fresh parsley into cooked sauce just before serving.
- For mustard sauce, stir in 1 tablespoon wholegrain mustard (or to taste) just before serving.
- For mushroom sauce, in a small, non-stick frying pan, cook a handful or two of sliced closed cup or chestnut mushrooms in a dash of olive oil until cooked and tender. Drain off any excess juices; stir the mushrooms into the cooked white sauce just before serving.

1. Preheat oven to 200ºC/180ºC fan/gas mark 6. Put fish fillets in a lightly greased ovenproof dish; drizzle over olive oil and season with black pepper. Cover with foil; bake fish in oven for 15–20 minutes or until cooked.

2. Meanwhile, place sunflower spread, flour and milk in a small, non-stick saucepan. Heat gently, whisking continuously, until sauce comes to the boil and is thickened and smooth. Simmer gently for 2 minutes, stirring. Season to taste with black pepper.


**COOK’S TIPS**

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Cottage pie
with herby mash

A heart-healthy version of a traditional favourite

Preparation time: 25 minutes
Cooking time: 1 hour, 25 minutes
Serves: 2 (generously)

• For the topping, try using a mixture of boiled potatoes and parsnips.
• Use the cooked meat filling as the basis for spaghetti, or to fill lasagne, or as a jacket potato topping.

Each portion contains:

<table>
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<th>Energy 2214kJ</th>
<th>Sugars 14.9g</th>
<th>Fat 15.4g</th>
<th>Saturates 5.2g</th>
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<td>527kcal</td>
<td>Low 17%</td>
<td>Low 22%</td>
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% = an adult’s reference intake

Ingredients:

2 tsp rapeseed oil
1 small red onion, chopped
2 carrots (about 250g/9oz total/unprepared weight), chopped
1 stick celery, chopped
115g (4oz) chestnut mushrooms, sliced
225g (8oz) extra lean minced beef (5% fat)
3 tsp plain flour
200ml (7fl oz) homemade or reduced-salt beef or vegetable stock
1 tbsp tomato purée
1 tsp dried mixed herbs
1 tsp Worcestershire sauce (optional)
Freshly ground black pepper, to taste
2 baking potatoes (about 450g/1lb total weight), washed (peel left on), cut into chunks
2 tbsp skimmed or semi-skimmed milk
2 tbsp snipped fresh chives
1 tbsp chopped fresh parsley

1 Heat rapeseed oil in a non-stick saucepan. Add red onion, carrots and celery; sauté over a medium heat for 6–8 minutes or until starting to soften. Stir in mushrooms; cook for 1 minute. Add minced beef, stirring to break up clumps; cook for 5 minutes or until meat is coloured, stirring occasionally. Stir in flour; cook for 1 minute. Stir in stock, tomato purée, dried herbs, Worcestershire sauce (if using) and black pepper. Bring to the boil; reduce heat, cover and simmer for 40 minutes, stirring occasionally (remove lid for last 10 minutes).

2 Meanwhile, put potatoes in a pan; cover with cold water. Bring to the boil; simmer for about 15 minutes or until tender. Drain well; return to pan. Mash potatoes; stir in milk and fresh herbs. Season with black pepper. Cover; keep hot.

3 In the meantime, preheat oven to 200°C/180°C fan/gas mark 6. Transfer meat mixture to an ovenproof dish. Top with mash; spread roughly with fork, covering meat completely. Place dish on baking sheet. Bake in oven for 20–25 minutes or until topping is nicely browned. Serve with cooked peas.
Oven-baked ratatouille with eggs

A vegetable medley makes a mouthwatering meal for two and can be the basis of several different meals

Preparation time: 15 minutes
Cooking time: 50 minutes
Serves: 2

• For a more substantial meal, serve with jacket potatoes (or cooked pasta).
• Omit the eggs and serve the ratatouille with lean grilled meat or chicken, or stir in some hot tinned beans, such as cannellini beans, butter beans or chick peas just before serving.
• The cooked ratatouille (without the eggs) is suitable for freezing for up to 1 month (the vegetables may be a bit softer on defrosting but will still taste delicious).

1 small red onion, cut into thin wedges or sliced
2 courgettes, sliced
1 red or yellow pepper, deseeded and diced
2 tsp olive oil
Freshly ground black pepper, to taste
1 clove garlic, crushed
227g (8oz) can chopped tomatoes in rich natural juice
2 tsp tomato purée
1 tsp dried herbes de Provence
2 large eggs
Chopped fresh parsley, to garnish (optional)

1 Preheat oven to 200ºC/180ºC fan/gas mark 6. Put red onion, courgettes and red pepper in a small, non-stick roasting tin. Drizzle over olive oil and season with black pepper; toss to mix. Cover with foil; cook in oven for 20 minutes.

2 Stir in garlic, tomatoes, tomato purée and dried herbs; re-cover, return to oven and cook for a further 20 minutes.

3 Remove from oven and stir; make 2 slight indents or ‘nests’ in ratatouille mixture. Carefully crack an egg into each indent; season eggs with black pepper. Return to oven, uncovered; cook for a further 8–10 minutes or until eggs are cooked to your liking.

4 Sprinkle with chopped parsley (if using); serve immediately with fresh crusty wholegrain bread.
Apple & blackberry oat crumble

Oats (or oatmeal) bring added crunch to this popular fruit-packed pudding

Preparation time: 20 minutes
Cooking time: 40 minutes
Serves: 3–4

Ingredients:
- 55g (2oz) plain wholemeal flour
- 25g (1oz) rolled oats or medium oatmeal
- 25g (1oz) sunflower spread
- 25g (1oz) soft light brown sugar
- ½ tsp ground cinnamon
- 2 eating apples, such as Braeburn (about 375–400g/13–14oz total/unprepared weight)
- 150g (5½oz) fresh blackberries
- 2 tbsp unsweetened apple juice
- 1½ tsp clear honey

1. Preheat oven to 180ºC/160ºC fan/gas mark 4. Place flour and oats in a bowl; lightly rub in sunflower spread until mixture resembles coarse breadcrumbs. Stir in sugar and cinnamon. Set aside.

2. Peel, core and thinly slice apples. Place apples and blackberries in an ovenproof dish. Mix together apple juice and honey; pour over fruit and stir gently to mix.

3. Spoon crumble mixture evenly over fruit to cover fruit completely. Bake in oven for about 40 minutes or until fruit is soft and crumble is cooked and lightly browned. Serve hot or warm on its own or with 0% fat thick Greek-style natural yogurt or fat-free plain fromage frais.

COOK’S TIPS

- Swap fresh raspberries or blueberries for the blackberries.
- Try using pears instead of the apples.
- The cooked crumble is suitable for freezing for up to 1 month. It also reheats well.
- Baked or stewed fruit (without the crumble topping) is ideal with porridge or yoghurt for a healthy breakfast.