

Heart Matters

Inspiration | Information | Support

Spring 2023

Does what time you eat matter?

How when you eat could affect your health

Key questions to ask your cardiologist

Get the most out of your consultation

Bake Off winner Syabira

Why I'm driven to research heart disease

Adapting to the 'new normal'

How to adjust to a life-changing diagnosis

British Heart Foundation

Contents

Spring 2023

News

- 4 **What we've learned**
Fascinating facts from this issue
- 5 **Your letters**
- 6 **News**
What's new at British Heart Foundation and in research
- 8 **Behind the headlines**
Who will get statins? Are people on lots of drugs at risk of side effects?

Living well

- 9 **Five-minute mood-boosters**
Tips to help you feel better

Real life

- 10 **Adapting to a 'new normal'**
How to adjust to a life-changing diagnosis
- 24 **Two sides of a story**
How Joe and Rhiannon rebuilt their life after his cardiac arrest
- 41 **Living with long Covid**
How Kerstin is fighting to regain her health

Understanding health

- 14 **Got a cardiologist appointment?**
Expert tips to make the most of it
- 36 **Ask the expert**
Aspirin and stomach problems, heart attack symptoms in women, and psoriasis and heart health

Eating well

- 16 **Does what time you eat matter?**
New research on how when we eat may affect our health
- 18 **Ask the expert**
Is a slow cooker worth it? How much protein do you need to eat to build muscle?
- 19 **Recipes: pull out and keep**
Salmon traybake, healthier chicken burgers and veggie chilli
- 22 **Healthy meals in 15 minutes**
How to get food on the table when you're hungry and hurried

Getting active

- 28 **Exercise as you get older**
Keep active to boost your health at any age

Science

- 32 **Can we stop the heart getting older?**
A gene that may help older people live a healthier life for longer
- 34 **Day in the life**
Bake Off winner Dr Syabira Yusoff on balancing baking alongside her BHF-funded research
- 38 **How are gum and heart disease connected?**
The surprising way in which the bacteria in the mouth are linked to heart attacks



34 Bake Off's Dr Syabira Yusoff on her BHF-funded science



31 questions to ask your cardiologist



19 Delicious, healthy salmon traybake



28 The benefits of keeping active as you age



24 Joe reflects on how his cardiac arrest affected others



Content you can trust

We put together every issue of Heart Matters with the help of experts, such as doctors, cardiologists, psychologists and specialist nurses.

Everything in the magazine is checked three times over by our specialist cardiac nurses and senior dietitian, as well as by research and statistics experts.

So you can feel confident that what you're reading is accurate and up to date.

Editor's letter



Life has a way of bringing changes: sometimes unexpected, sometimes challenging. For many of you, a heart condition brings changes that can be long-lasting and permanent. Pauline, who's had a stroke, and Stuart, who's had heart valve surgery, reflect on how they've learned to find the good in the 'new normal' on pages 10-13.

I've been inspired recently by the author and speaker Dr Maria Sirois, who says that growth and change is something you do today, every time you make a choice – not something that you put off until tomorrow. She advises that as you live your daily life, you "remind yourself of your strengths, your gifts, and your capacity to learn from difficulty". I think this is powerful advice – even if (especially if) it doesn't feel easy to follow.

Speaking of change, it's goodbye from me. Moving on to pastures new has been one of the hardest decisions I've ever made. It's nearly 12 years since I first started working on Heart Matters, and more than seven since I had the privilege of becoming its Editor.

My greatest reward has been hearing your feedback – whether good or bad – and your personal stories. Thank you for sharing your difficult times, your triumphs over adversity, the things that you've disagreed with and the ways Heart Matters has supported you. It's been a joy to read letters (see the address on page five) with comments like "it gives people the hope to live, through the life stories of other people", "it helps put my mind at ease" and "we feel we are learning all the time, and are heartened by all the research that is being undertaken".

I'm leaving Heart Matters in the care of a brilliant team, who are constantly looking for ways to make it even better.

If Heart Matters has helped you and you'd like to make a donation, we'd be grateful. You can visit bhf.org.uk/HMdonate, or send a cheque payable to British Heart Foundation addressed to BHF, 2300 The Crescent, Birmingham, B37 7YE. Please mention Heart Matters with your cheque.

Sarah B

Sarah Brealey, Editor

Have your say on Heart Matters

Go to bhf.org.uk/heartsurvey to tell us what you thought of this issue. You could win a £50 John Lewis or Amazon gift card! Or post comments to Heart Matters at the address on page five. Our last survey winner was Kelly, from Croydon, who said: "I'm so surprised I won as I never win at this sort of thing. This voucher could go a long way; I always need things around the kitchen when I'm cooking and as I love crafting, I'll get some more yarn for my projects."

Heart Matters is published by British Heart Foundation, Greater London House, 180 Hampstead Road, London NW1 7AW. ISSN17459753 British Heart Foundation is a registered charity in England and Wales (225971) and in Scotland (SC039426). Views expressed in this magazine are not necessarily those of British Heart Foundation. British Heart Foundation does not endorse third-party products and services featured in Heart Matters. Information is correct at time of going to press. © BHF 2023. G204/0323

Registered with FUNDRAISING REGULATOR

What we've learned this issue



Every issue of Heart Matters teaches us things we didn't know before. Here are a few of the nuggets we found interesting this time

It's a common misconception that women experience different heart attack symptoms to men. While symptoms vary from person to person, there are no symptoms that are more or less common in women than in men.

Ask the expert, page 36



Keeping active as you age will not only lead to a healthier body but can keep your brain working better too.

Exercise as you get older, page 28



Having a shorter 'window' to eat in the day, and a longer overnight gap without meals, may be good for our heart health.

Does it matter when you eat? page 16



If you do just one thing...

Write a letter of gratitude to someone who's helped you. Being grateful for the people and things you have in your life can help boost your mood. It'll only take five minutes and can help you feel better even if you don't send it.

Five-minute activities to boost your mood, page 9

Eating more protein than you need won't build more muscle – any your body doesn't use as energy will be stored as fat.

Ask the expert, page 18



Okinawa in southern Japan has some of the world's oldest people and the secret partly lies in genes that keep their hearts younger than their age.

Can we stop the heart getting older? page 32



About a third of people with psoriasis also develop arthritis and the chronic inflammation it causes is linked to heart disease and heart attacks.

Ask the expert, page 36

The average human body contains more bacteria than human cells – some 38 trillion bacteria.

The tooth of the matter, page 38



Your letters



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

Fresh vs frozen

I really enjoy the features and tips in Heart Matters magazine. I try to eat five portions of fruit and veg per day, which isn't always easy. I was pleased to read the article on fresh or frozen vegetables. I use a lot of frozen fruit and veg since the 'no date to reduce waste' campaign has started. Last week I had a bag of rotten and mouldy carrots. The week before my satsumas were mouldy and rotten. To read frozen is as good as fresh was reassuring!

Carole Willis, Hexham, Northumberland

Learning to let go

I'd like to say how helpful Heart Matters is to my recovery, especially the article on 'letting go' in the winter issue [bhf.org.uk/lettinggo]. I had an aortic valve replacement a year ago, out

of the blue. The mental challenges I experienced afterwards had not been explained to me beforehand. I am now in a much better place physically and mentally thanks to my local surgery and the brilliant team at St Barts Hospital. I really look forward to reading the magazine, so thank you.

Hazel Morgan, Wokingham, Berkshire

So enjoyed reading 'Learning to let go'. The struggles and solutions, described in this excellent article, resonated with me like nothing else.



The psychological scars of giving up what you love are huge – especially when you feel those passions define you – and rarely written about so concisely. Well done.

Rob Jennings, Ipswich

5-a-day or more?

One of your articles referenced 'your 5-a-day'. I've had diabetes for years and thought that the advice is '5-plus-a-day'. So I am confused. Which is it?

David Hurdle, Sheringham, Norfolk

Victoria Taylor, British Heart Foundation Senior Dietitian, says:

Although '5-a-day' is used widely, this is the least we should be eating. Unfortunately, about three quarters of people in the UK still eat less fruit and veg than recommended, which means getting to five portions is the first step.

Lowering salt

I've just read the salt in foods article in the latest magazine. Could LoSalt be an alternative for someone trying to reduce their salt intake?

Alison Tucker, London

Victoria Taylor, British Heart Foundation Senior Dietitian, says:

Low-salt alternatives can help you reduce your sodium intake, but they won't help you kick the habit of eating foods that taste salty. They usually contain potassium, and too much potassium is not recommended for people with heart or kidney problems. If you have a heart condition, talk to your doctor before using a salt substitute.

Have you taken part in our survey?

We'd like your feedback on this issue of the magazine. We have a short survey, which should take about 10 minutes to complete, and will help us make the magazine better for readers. As a thank you, all replies received by 20 June 2023 will be entered into a prize draw to win a £50 gift card to spend either at John Lewis or Amazon.

Our latest winner, Kelly, from Croydon, said: "I'm so surprised I won as I never win at this sort of thing. I had to tell my husband straight away! This voucher could go a long way; I always need things around the kitchen when I'm cooking and as I love crafting, I'll get some more yarn for my projects." Take the survey at bhf.org.uk/heartsurvey.

WIN
a £50 gift card
to spend at either
John Lewis or
Amazon

60-minute iron treatment may help prevent heart failure hospitalisations

Iron could help people with heart failure to stay in better health, according to recent British Heart Foundation-funded research.

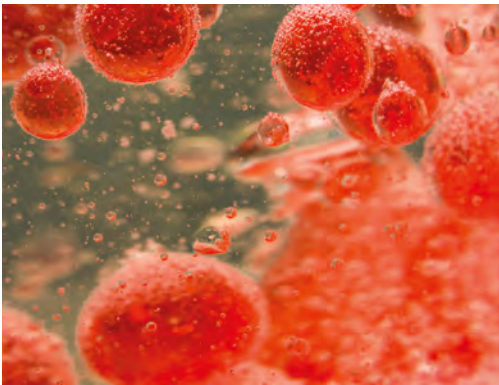
This study found that an intravenous iron infusion (where iron is delivered into a vein via a drip) is a safe and effective way to reduce the risk of hospitalisation for heart failure.

“This trial shows for the first time the longer-term benefits and safety of intravenous iron treatment in heart failure, adding to the growing evidence of its favourable effects,” said co-leader of the study, Professor Paul Kalra, who is Honorary Clinical Senior Lecturer at the University of Glasgow and consultant cardiologist at Portsmouth Hospitals University NHS Trust.

In the study, 1,137 people with heart failure and low iron levels received either intravenous iron infusions or their usual care. Iron treatment reduced the risk of hospitalisation or death from a heart-related cause by 18 per cent, and had improved patients’ quality of life four months later.

Professor Kalra said: “Despite advances in treatment, people with heart failure still experience symptoms that affect their lives. We’ve shown that one 60-minute treatment can make a real difference to patients.”

Nearly a million people in the UK are living with heart failure. If you have heart failure and you’re concerned that your iron levels might be low, speak to your cardiologist.



Iron is needed to form part of red blood cells (pictured)

First blood test to diagnose heart inflammation

A new discovery from a team co-funded by British Heart Foundation and Barts Charity could make it easier to spot myocarditis (inflammation of the heart muscle).

The charity Myocarditis UK estimates that one young person dies suddenly every week in the UK due to previously undiagnosed myocarditis.

The presence of a molecule called cMet on the surface of a type of white blood cell called a T cell strongly suggests that someone has myocarditis. The levels of cMet-expressing T cells could be detected through a blood test costing less than £50, with results available within hours. This would reduce the need for a heart biopsy, the current gold standard for diagnosis.

The researchers at Queen Mary University of London hope that after further research, this test, which could be ordered in GP surgeries, will improve the diagnosis and treatment of myocarditis. This could help prevent life-threatening complications such as abnormal heart rhythms or heart failure.

Professor Sir Nilesh Samani, British Heart Foundation Medical Director, said: “This blood test could revolutionise the way we diagnose myocarditis, reducing the need for risky invasive tests, saving the NHS time and money and freeing up vital resources.”

New 10-minute scan helps treat growths that cause high blood pressure

A new scan may help detect and cure a type of growth that can cause high blood pressure.

High blood pressure has many causes (see bhf.org.uk/bloodpressure for more information on some of the common causes).

For around one in 20 people, the main cause of their high blood pressure is primary aldosteronism. This is a condition where one or both of the adrenal glands (the hormone-producing glands on top of the kidneys) produce too much of a hormone called aldosterone. It can cause high blood pressure that doesn’t respond to typical blood pressure-lowering medication.

Often the excess aldosterone is caused by a growth. If only one of the adrenal glands has such a growth, this can be removed in surgery, curing the person of their primary aldosteronism and often also their high blood pressure.

But in the past, diagnosing this was difficult as it involved an invasive procedure that was only available at a few hospitals. Only one per cent of people with the condition were treated.

Now a British Heart Foundation-funded study, published in Nature Medicine, has shown that a new type of CT scan, which isn’t invasive and only takes 10 minutes, can be used to find aldosterone-producing growths and help decide whether the person should have surgery to remove it.

The study included 128 people with primary aldosteronism. The researchers found that the new type of CT scan was as accurate as the old, invasive test. It’s hoped this will help more people with the condition be treated.



Dates for your diary

March onwards

Live & Ticking: online events. Each one-hour event reveals the latest BHF science, and personal stories of people affected by heart and circulatory diseases, who stand to benefit from the research. Book your place at bhf.org.uk/liventicking.

30 April

Heart Heroes Awards 2023 nominations close. The annual Heart Hero Awards recognise the incredible people who help to support our lifesaving research. You can nominate researchers, fundraisers, advocates and patients. CPR Heroes and Young Heart Heroes categories remain open for nominations throughout the year. Learn more at bhf.org.uk/heartheroes.

30 April

Glasgow Kiltwalk. Kiltwalk is Scotland’s favourite walking event, which helps raise funds for charities. You can find out more and sign up at thekiltwalk.co.uk/events.

28 May

Edinburgh Marathon Festival. Take part in the UK’s fastest marathon or sign up for one of the shorter races taking place on the same day, including the half-marathon, 10k and 5k. Find out more at edinburghmarathon.com.

News bites

British Heart Foundation responds to ambulance delays

We’ve called for urgent action as figures for December revealed average ambulance response times of over 90 minutes for heart attacks and strokes in England.

This was well above the target average response time of 18 minutes for a category 2 call (which includes heart attacks and strokes).

Dr Sonya Babu-Narayan, our Associate Medical Director, said: “The difference between life and death can be a matter of minutes when someone is having a heart attack or stroke.

“There is no easy solution but there is a path out of this cardiovascular crisis if the government supports the NHS to deliver what heart patients want and need.”



‘Sugar tax’ may have helped reduce obesity

Researchers at the University of Cambridge have reported that there have been 5,000 fewer cases of obesity among Year 6 girls each year in England since the Soft Drinks Industry Levy came into force in 2018. Dubbed the ‘sugar tax’ by some, this levy led many drinks manufacturers to reduce the amount of sugar in their products.

- Learn how you can cut back on sugar at bhf.org.uk/sugaryfoods.

Remote volunteering roles at British Heart Foundation

We now offer remote volunteering to fit around your other commitments – while still giving you the chance to learn new skills, meet people, and support our groundbreaking research.

Tracy Atherton is one of the first

volunteers to support British Heart Foundation from the comfort of her own home. She photographs items from her local BHF shop in Thornbury, Gloucestershire, before they’re sold online through Shopiago. Tracy said: “At home I photograph the items with my phone, which makes it quicker, and helps overcome store room limitations.”

- Learn more at bhf.org.uk/actionteam.

Behind the headlines



Daily Mail, 24 January 2023

“Women are most at risk of suffering adverse reactions to drugs”

A new study published in the British Journal of General Practice has found a link between older people taking a combination of different medications and a bigger risk of side effects (known as adverse drug reactions, or ADRs).

The study was based at 15 GP surgeries in Leinster, Ireland, and followed 592 people aged over 70 for six years. ADRs were categorised as mild (such as nausea) or moderate (such as stomach upsets that resulted in a hospital visit).

It found one in four people had at least one ADR over the six years, most of which were ‘mild’. People taking five to nine medicines were almost twice as likely to have an ADR, compared to those taking fewer than five. People on 10 or more medicines were over three times as likely to have an ADR.

There were also differences in ADR rates between sexes: older women were at least 50 per cent more likely than older men to have an ADR.

The Daily Mail headline didn’t mention the study age group, so it might mislead under 70s into thinking the findings apply to them as well.

The Mail also said: “Researchers suggested stopping ineffective



medications as a way of minimising the risks.” Actually, the researchers suggested “deprescribing” ineffective medications as a way of minimising risks. There’s an important difference. While the study wording suggests that it should be up to GPs to deprescribe (stop patients taking) medications, the Mail wording might wrongly give the impression that people should stop medications they found ineffective, perhaps without checking with their GP first.

Daily Mail, 12 January 2023

“Now ANYONE over 18 can get statins!”

Statins are medications that help reduce blood cholesterol levels. Having too much cholesterol can clog your arteries, causing problems like heart disease. Reducing cholesterol helps lower the risk of developing heart and circulatory conditions.

Currently, the official body which sets guidelines on health and care, the National Institute for Health and Care Excellence (NICE), recommends that people with a 10 per cent or higher risk of having a cardiovascular event, such as a heart attack or stroke, over the next 10 years, should be offered a statin.

New draft guidance from NICE has recommended that statins can now be “considered” for adults who haven’t had a heart attack or stroke and whose 10-year risk is less than 10 per cent.

The new draft guidance says that people at low risk should speak to their GPs and make any treatment decision together, based on individual circumstances.

The Daily Mail’s headline may be misleading. The draft guidance refers to people at a relatively low risk of a heart attack or stroke, or whose risk may be underestimated, rather than to ‘anyone’. Also, the headline suggests this new guidance is already in place, when it’s a draft that’s out for consultation. The final draft will be published in May 2023.

BRITISH HEART FOUNDATION VERDICT

Professor Sir Nilesh Samani, our Medical Director, said: “Research has shown that statins are largely safe. However, the decision to start this medication, which needs to be taken on a long-term basis, is very much a personal choice. It should be based on a conversation with your GP, and combined with eating a healthy diet and exercising regularly to get the most benefit.”

BRITISH HEART FOUNDATION VERDICT

If you are experiencing any new symptoms, don’t suddenly stop taking your medication, as this could be harmful. Discuss any changes with your GP or pharmacist first. They will help you understand if the symptoms are side effects, or something else, and advise you on any changes you need to make to your medication, or, in the case of a pharmacist, tell you if you should see your GP.



Five-minute activities to boost your mood

It's normal to feel a bit low at times, but there are things you can do to help yourself feel better. Here are five evidence-based tips to boost your mood

1 Listen to music

The benefits of listening to music are well-known. Instrumental music may help reduce pain and anxiety, lower blood pressure, and reduce the stress of isolation, or make you feel a specific emotion. Your favourite song can motivate you to get up and move, which can itself boost your energy and mood.



2 Practise gratitude

Make a list of things and people you're grateful for, big or small, and try to do this regularly. You could even write a letter of gratitude to someone – even if you don't send it, writing a letter can help you feel better.

3 Use your hands

Using your hands for activities that don't require much focus, like scrubbing a sink, helps your brain relax, while using your hands to achieve specific tasks can bring you joy. Both types of activities have been linked to improved mood, and reduced feelings of irritability, apathy, and depression. Try doodling, colouring in, paper plane making, or peeling vegetables.

4 Chat to someone

Connecting with other people can help bring you out of yourself and lift your mood. Services like the Silver Line may help when you feel like you've got no one to talk to. The Silver Line is a friendship service that is free to call on 0800 4 70 80 90. You can read more about this service on their website at <https://www.thesilverline.org.uk>.

5 Breathe

Breathing deeply can help you to reduce stress and feel more in control. Box breathing (also known as square breathing) is one of many breath techniques. Breathe in while you mentally count to four, hold your breath for a count of four, exhale to the count of four, then hold your breath to the count of four. Repeat for five minutes. ●



Tried this at home?

Try at least one of these tips and let us know if you feel better as a result. Do you have other recommendations? Email us your thoughts and ideas at HMeditor@bhf.org.uk or write to us using the address on page five.

Adapting to a new normal

After a heart attack, stroke, a diagnosis, or surgery, you may find life has changed in many ways. We have tips from an expert, and hear from people who have been through it about how they adjusted

If you find that your condition has changed your life in some way, you are not alone. Adapting to the 'new normal' is likely to take time. "Most people will experience a level of uncertainty and feelings of loss of control," says Mina Arvanitopoulou, Lead Clinical Psychologist in Adult Congenital Heart Disease and Cardiology at Guy's and St Thomas' NHS Foundation Trust.

She explains that it's important to get support from other people. "You may find yourself avoiding socialising, going out, or doing your usual activities, especially during the first few months. Some people feel that when there is something wrong with

their heart it's almost like a fault within themselves. This can lead them to avoid people and their usual support networks. But seeking support and talking about your experience to your loved ones is very important." You may also find it helpful to join a local support group or online community. Find out more at bhf.org.uk/support.

Ms Arvanitopoulou adds that the physical limitations of a heart condition may affect your sense of identity, especially if you see yourself as a "doer" who has lots of responsibilities and who is used to doing things for other people, at home and at work. She explains: "Underlying that is often a need to feel

useful and to feel loved. If you are able to acknowledge this, you can perhaps realise that 'I can take a step back and slow down'. This can allow you to invest your time and energy in a more meaningful way for you."

She also recommends getting more connected to the things that really matter to you. This could be spending more time with family or friends, or pursuing a new hobby. She says: "When your life is put on hold – because you have no choice – it gives you time to reflect and re-evaluate priorities. You can then start appreciating things that matter to you more, and life can start to feel more precious and colourful."

Stuart's story: "I can accept life is different now"

Stuart Harrod, 31, from Nottingham, developed endocarditis, an infection of the inner lining of the heart. The infection damaged his mitral valve, and he needed surgery to replace it.

"My health and lifestyle were pretty normal, then a couple of years ago in a work health check they found a slightly leaky heart valve, which meant it needed checking every couple of years. It was very slight, and I was just being checked every few years.

Then at the start of July 2022, I had

a fever and flu-like symptoms. I was in hospital for a week, and then a cardiologist told me they suspected I had endocarditis. I needed surgery to replace the damaged valve.

It was such a lot to take in, it felt overwhelming, and sometimes I just sat and cried. My parents, my wife, Joy, and the nurses helped me through it.

I decided to have a mechanical valve because it would last longer than a tissue valve (which is usually made from pig or cow tissue). With a mechanical valve you're more likely to get clots, so you take blood thinners

for life. At home, I had to learn to inject myself with blood thinning medication. It was difficult because I had never done anything like that before in my life and at first I felt a bit downhearted. I was thinking 'Is this my life now?'

I'm willing to make changes

But I surprised myself – I did it – and it showed me I could manage. I don't need to inject myself any more, but I will need to take warfarin for life, and I've adjusted to it. Warfarin is normally taken in the evening so if I am going out for a meal, I think I had better take my warfarin before I go out, because ►

“My wife and I have found new ways to show we're there for each other.”

Photography by Ollie Holder

afterwards it will be too late. I've got over that feeling that being on warfarin was going to be a disaster. It's there for a reason, to keep me well, and it's quite manageable. I just see it as like the injections and checks that some people with diabetes do every day.

Some foods and drinks that contain a lot of vitamin K can affect how warfarin works, so I have to keep that in mind. At first, I avoided all sorts of foods, but at the warfarin clinic they advised eating normally; they can adapt the warfarin dose if necessary.

Alcohol is more of an issue. If I go out for a drink, I can have one drink and that's it, otherwise it will affect how the drug works and mess up everything I've been working towards. I had a valve replacement to save my life. If that means cutting down to one drink at a party, I'm willing to make that sacrifice.

I've also had to get used to taking other medication regularly. I work as head of procurement for a global bank and when I travel on business, I have to remember to take my tablets twice a day, so I set two alarms on my phone.

My wife and I have had to adjust to some changes in our relationship. We lost some of the physical side of it, which has been difficult. We are big huggers, and we couldn't hug because of the pain in my sternum (breastbone) in the weeks after my surgery. We have found other ways to show affection to each other and be there for each other.

I've developed some health anxiety. Poor oral hygiene or tooth infections increase the risk of endocarditis, so I felt anxious about getting problems with my teeth. Having a dentist's appointment helped reassure me that my oral hygiene is very good.

Sometimes I feel anxious if my heartbeat feels a bit different, although my doctor has reassured me that it's not unusual when your heart is recovering from major surgery. I am going to see if I can get some talking therapy, just to get some coping mechanisms in place."

Pauline's story: "There is life after a stroke"

Pauline, 60, from London, had a stroke when she was 47, which affected her ability to walk, her balance, and the use of her right arm.

"The stroke changed many things in my life. I was a nurse and I had to give that up. Some of my friends stayed in touch but others stopped involving me in things. I couldn't cook or dance – I love music and dancing. My mouth turned to one side and my speech was affected. I couldn't balance or use my right hand and I felt too shy to see people. For about a year I just stayed at home, staring out of the window, and I became depressed.

There were several things that helped me adapt to my new way of life and that improved my mood and my confidence. I had to re-learn how to walk, using a stick for support. My physiotherapist encouraged me to get stronger and to get more confident about leaving home.

I started going to a church where one of my sons knows the pastor. After the service we would have tea and chat, and that helped me meet new people. I joined the London Stroke Choir, which meets at a local college,

and that helped me a lot. I started to see that it's not the end of my life, and I started making new friends there. Singing, as well as speech therapy, helped me with my speech.

I've got three sons – they are so supportive, so that was my happiness and joy. My youngest son, Oluseyi, who is training to be a nurse, lives with me and helps me with things I can't do any more, like shopping and cooking.

I met people with similar experiences

Some of us from the choir started going to a pool to do aqua aerobics, with people in the pool helping us. That helped me build strength, but it also helped with the social side as well, because it was new people to talk to who had been through something similar.

I also found new opportunities that I wouldn't have done before. I joined an arts show with an organisation called Rosetta Life, which works with artists and health professionals to help people like me express our feelings. We did a show called Stroke Odysseys with musicians and dancers, and we toured the UK. It helped bring back my confidence.

I have my family, my church, and new friends I have made. I went from being stuck inside the house to doing lots of different activities. I just want to advise people who have had a stroke that they should not give up – after stroke there is life. When you come out of hospital, move on, fight for it – you'll get there one day." ●

“
I went from being stuck inside the house to doing lots of different activities.”



Tried this at home?

Did you find any of the tips in this article useful? Do you have other suggestions of how to adapt when your health changes your lifestyle? Email us your thoughts at HMeditor@bhf.org.uk or write to us using the address on page five.



“
My youngest son helps with the things I can't do any more.”

Got a cardiologist appointment? Here's what to ask

Not sure how to handle an upcoming appointment, or how to get the answers you need? Senior Cardiac Nurse Chloe MacArthur has tips to help

Whether you are getting a diagnosis, discussing your treatment or having a follow-up appointment, seeing your cardiologist is a chance to get the information you need to feel as well as you can with your heart condition. These appointments can feel overwhelming – especially if your heart problem is a recent one, or if you've been waiting a long time.

Planning the questions you want to ask can help you get the most out of your time with your cardiologist (or other specialist). And it can make you feel more involved with your care.

You may not get a chance to speak to your cardiologist again for a long time, so ask about the things that matter to you. List your questions in order of importance, in case you don't get time to ask all of them.

Preparing for your appointment

These are some things you might want to think about:

- How have you been feeling?
- Has anything changed, or do you have any new symptoms?
- Is there something you'd like to change about your care?
- How has your life been affected by your condition – for example work, exercise or hobbies?
- What has been going well and what hasn't?

Ask your cardiologist how to get answers to any questions you have after the appointment – they may be happy for you to email them, or they may suggest speaking to your GP or nurse. Or they might recommend a reliable website, like ours ([bhf.org.uk](https://www.bhf.org.uk)) for more information.

“Planning the questions you want to ask can help you get the most out of your appointment.”

Remember to take your questions with you, and a pen so you can take notes. You may find it helpful to keep a specific notebook for medical appointments.

Your first appointment

You may want to ask:

- What tests will I have, what do they involve and when will they be?
- Is there anything I should try to do while I wait?
- Is there anything I should avoid doing while I wait?
- Are there any signs or symptoms to look out for?
- At what stage should I contact someone if I have new symptoms, or any other problems, and who should I contact?
- What can I do to help myself?

Discussing your treatment

If you're waiting for treatment or if it's just begun, you could ask:

- How will this treatment help?
- Is there anything I can do to prepare for it?
- What risks may be involved, or what side effects should I look out for?
- How does this medication work?
- Who can I talk to if I have problems or questions about the treatment or medication?

If you're waiting for surgery or a procedure, you could ask questions like:

- How long will I be in hospital?
- What can I expect when I wake up after the operation?
- What can I do before I am admitted to help my recovery go as well as possible?

You can find tips on preparing for a hospital stay at [bhf.org.uk/preparing-for-hospital](https://www.bhf.org.uk/preparing-for-hospital).

You can also use this appointment to find out what might happen after treatment. This can help you plan for the support you'll need during your recovery, or if you need to discuss taking time off work with your employer.

You may want to ask questions like:

- Will I need a sick note? Who can I ask for it?
- Do I need a nurse to look at my dressing?
- How long until I can get back to daily life/work/hobbies?

Living with your heart condition

You could think about the things you do in your daily life, what you enjoy doing and possible adjustments you might have to make because of your condition.

These questions may be useful if you are seeing a cardiologist during your stay in hospital, or if you don't see your cardiologist very often:

- When can I expect a follow-up appointment?
- How will this affect my work?
- What exercise can I do?
- Is it safe to have sex?
- Is there a nurse specialist who can support me?
- Can I travel? ●

Virtual appointments

If you've been booked in for a video or phone appointment, you may feel disappointed not to see your cardiologist in person. But this is still a great opportunity to ask your questions and make your voice heard. Try to ask the same questions that you would face-to-face. Make sure you describe any symptoms you are having, as your doctor won't be able to examine you.

- Read more about making the most of phone and video appointments at [bhf.org.uk/virtual-appointments](https://www.bhf.org.uk/virtual-appointments).

Does it matter when you eat?



Illustration by Koryna Zukauskaite

New research is starting to suggest that when we eat could be affecting our health, as Senior Dietitian Victoria Taylor explains

What difference does your meal timing make?

There are several theories about why timing of meals is important. Studies have shown that even when people eat the same number of calories, the time of day they are eaten affects how they are used in the body. This difference could affect weight, cholesterol levels and blood sugar levels – all of which can affect your risk of heart and circulatory diseases.

What's causing this isn't completely understood. It could be that the body uses up more energy digesting food in the early part of the day. But other theories focus on differences in how the body uses energy across the day, or the idea that skipping breakfast or eating late at night disrupts your internal body clocks, or the fact your meal timing can affect your behaviour later in the day.

There is evidence from studies looking at the meal patterns of large groups of people (observational studies) that skipping breakfast is linked to an increased risk of obesity, as well as higher "bad" cholesterol levels and worse cardiovascular health. However, studies where people were put into groups to either eat or skip breakfast (randomised controlled trials) have given more mixed results. These randomised controlled trials have generally been small in size and

short in duration, so more research is needed. But the findings suggest that advice to eat breakfast has a limited benefit for weight loss, although it could be helpful in regulating blood sugar levels and making it easier to eat healthily later in the day. It's possible that having breakfast could also help you feel that you have the energy to be more active across the day.

There is also evidence that eating late at night can be linked to obesity as well as having effects on how the body regulates blood sugar levels. Research is limited, but there appears to be a link between our internal body clock and the digestion and absorption of nutrients. Our body's circadian rhythm (its natural daily cycle) is designed for eating in the day and sleeping at night. If it is disrupted, this could have implications for our heart health.

Should we shorten our eating window?

In the UK, we typically eat across a 14-hour period from our first mouthful to our last. That means a 10-hour gap overnight. A smaller overnight gap has been linked to weight gain and effects on blood sugar levels. And having a longer overnight gap seems to have benefits, including reductions in blood pressure and weight. This is called time-restricted eating (TRE). It aims to limit eating hours to the daytime, which fits better with our circadian rhythm, and to avoid eating at night.

There is a lot of interest in time-restricted eating, as it's a simple strategy that doesn't focus on what you eat, or how much. But at the moment, results from the research vary too much to be able to draw firm conclusions. There is some evidence that it helps with short-term weight loss, but we don't know what happens in the long term. We also don't know how long the ideal 'eating window' should be. At the moment, studies use anything from four to 13 hours per day. It's also not clear

“**Having a longer overnight gap between meals seems to have benefits, including for blood pressure and weight.**”

how time-restricted eating could help lower the risk of heart and circulatory diseases, as most of the research so far has focused on obesity.

There are also questions about how well time-restricted eating works in real life, rather than in a more controlled research experiment. The practicalities can be challenging – for example, if you're invited to a social event that involves food, but doesn't fit into your eating window. We don't know whether trying to eat your last meal of the day earlier could lead to a greater use of convenience food or eating on the go. We also don't know whether fitting eating hours into a smaller window could lead people to be less active during the day, or whether normal exercise sessions could feel more challenging if they happen during fasting times.

What does this mean for us?

It's too soon to know for sure how meal timing influences our health and how we can realistically translate this into our eating patterns. More research is being carried out, and in the future we could see timing of meals included in dietary guidelines. For now, focusing on what you eat and achieving a healthy balanced diet is more important than when you eat it.

What we can say is that trying to stick to a regular meal pattern, and eating earlier in the day rather than late at night, is unlikely to be harmful and could help our health. ●

“**We typically eat across a 14-hour period from our first mouthful to our last.**”

Ask the expert

Send in your nutrition questions

✉ Email: HMeditor@bhf.org.uk

☎ Call our Heart Helpline: 0300 330 3311

✉ Write to: **Heart Matters, British Heart Foundation, 180 Hampstead Road, London NW1 7AW**

Q Will a slow cooker help me to eat healthily on a budget?

A A slow cooker can help with eating healthily, as this way of cooking doesn't need much (if any) fat, which can help to lower the calorie content. It also intensifies flavours – which is helpful when cutting down on salt.

You might also find it easier to cook regularly from scratch, as you can start your meal in the morning and return to a home-cooked meal in the evening. Having something ready when you're tired and hungry can help to reduce the temptation of a takeaway or ready meal. If you rarely have time to make breakfast, you can make porridge in the slow cooker overnight.

Slow cooking can help use cheaper cuts of meat that taste better after a long cooking time. To keep them healthier, trim off visible fat before cooking and skim any fat from the surface of the dish when it's finished. You can also add beans and lentils to these dishes, so you don't need as much meat.

Slow cookers typically cost less to run than an oven. They won't necessarily save you money compared with using an induction or a gas hob. Making exact comparisons is difficult, because there can be lots of factors, such as the type of hob and how you use it. If you're thinking of buying a new slow

cooker, bear in mind that it may take a long time for you to recoup the cost in lower energy bills. But if it's going to be a convenient way for you to cook healthy meals from scratch, it may be a good buy. Check your local British Heart Foundation Home store for any slow cookers, which will have been tested to make sure they work and are safe to use.



Victoria Taylor is Senior Dietitian at British Heart Foundation



Q Do I need to eat more protein to gain muscle?

A Protein helps build and repair muscle. Muscle growth happens when we do resistance exercise (eg lifting weights, carrying heavy bags of shopping or doing push-ups or sit-ups) and eat enough protein.

Most of us in the UK get more protein than we need. The recommendation is 0.75g of protein per kilo of body weight per day, which works out as 56g (2oz) a day for a 75kg (11st 11lb) man and 45g (1½ oz) a day for a

60kg (9st 6lb) woman.

For most people, eating a little more protein isn't harmful, but it won't lead to extra muscle. Any that your body doesn't need will be used for energy or stored as fat. Eating more than 1.5g of protein per kilo of body weight per day is not recommended,



as too much protein can be a problem for your kidneys or liver. Talk to your dietitian or doctor before changing the amount of protein you eat.

For building muscle, it may be more useful to know when to eat protein than how much. Eating some protein after exercise may be helpful. However, the effects of exercise on muscle growth can last for 24 hours, so having regular meals with sources of protein should be enough. ●

Salmon traybake



Preparation time: 10 mins

Cooking time: 40 mins

Serves: 2

Not suitable for home freezing

Each portion contains

Energy 1885kJ 451kcal 23%	Carbo- hydrate 28.8g	Fibre 7.3g 24%	Sugars 5.9g Low 7%	Fat 22.2g High 32%	Saturates 4.0g Low 20%	Salt 0.17g Low 3%
------------------------------------	----------------------------	----------------------	-----------------------------	-----------------------------	---------------------------------	----------------------------

% = of an adult's reference intake (traffic light colours are based on per 100g)

Ingredients

300g (10oz) new potatoes

200g (7oz) broccoli, cut into florets
(or asparagus spears, if you prefer)

2 tsp olive oil

1 clove garlic, crushed

1 tsp fresh thyme leaves (or ½ tsp
dried thyme)

1 tbsp fresh chopped parsley

1 tbsp fresh chopped mint

Zest and juice of ½ a lemon

2 x 120g (4oz) salmon fillets
(defrosted if frozen)

150g (5oz) cherry
tomatoes



How we made it healthier

Although salmon is high in fat, it's the healthy unsaturated kind. It's recommended we eat two portions of fish a week, one of which is oily (like salmon). We've added fresh herbs so the traybake is full of flavour without the need for salt or salty flavourings.

Method

- 1 Boil the new potatoes in water for 5 minutes, add the broccoli or asparagus and cook together for 2 more minutes, then drain. Set the broccoli or asparagus aside.
- 2 Place the potatoes into a small roasting tin with the olive oil, garlic and thyme. Toss until the potatoes are coated. Roast at 200°C/180°C fan/gas mark 6 for about 20 minutes or until tender.
- 3 Mix the parsley and mint together with the lemon juice and zest and pat it on top of the salmon fillets (on the non-skin side, if you are using skin-on fillets).
- 4 Place the broccoli or asparagus among the potatoes in the roasting tin, then place the salmon fillets and tomatoes on top. Roast for 10-12 minutes or until the salmon flakes easily. Serve with lemon wedges.



How we made it healthier
We used lime, honey, and coriander to flavour the chicken, rather than salt or salty sauces, and it's not coated and deep fried, to keep the fat levels down. The burgers are served in wholemeal buns for the benefits of wholegrains, and with hummus, which adds flavour and is lower in fat than mayonnaise.

Chicken burgers

Preparation time: 15 mins
Cooking time: 15 mins
Serves: 2
Not suitable for home freezing

Each portion contains

Energy 1792kJ 426kcal 21%	Carbo- hydrate 34.2g	Fibre 6.3g 21%	Sugars 7g Low 8%	Fat 13.8g Medium 20%	Saturates 1.2g Low 6%	Salt 1.1g Medium 18%
------------------------------------	----------------------------	----------------------	---------------------------	-------------------------------	--------------------------------	-------------------------------

% = of an adult's reference intake (traffic light colours are based on per 100g)

- Ingredients**
- Zest and juice of ½ a lime
 - 1 tsp honey
 - 1 tsp coriander seeds, crushed
 - 250g (9oz) chicken mini fillets
 - 1 tsp vegetable oil
 - 2 wholemeal bread rolls
 - 2 tbsp hummus
 - 2 Little Gem lettuce leaves
 - 2 slices of tomato

- Method**
- 1 Place the lime zest and juice, honey and coriander seeds in a bowl, and add the chicken fillets. Stir well until coated then leave to marinate in the fridge for at least 10 minutes, or an hour if possible.
 - 2 Brush a griddle pan (or non-stick pan) with the oil, then heat until very hot, add the chicken and cook for 3-4 minutes on each side until tender and no longer pink in the centre (cut one piece open to check).
 - 3 Cut the bread rolls in half, toast each side, then spread with hummus, top with lettuce, a slice of tomato and the chicken fillets.

Vegetarian chilli with sweet potatoes

Preparation time: 10 mins
Cooking time: 20 mins (or 1 hour for oven-baked sweet potatoes)
Serves: 2
Suitable for home freezing (chilli only)

Each portion contains

Energy 2422kJ 576kcal 29%	Carbo- hydrate 93.0g	Fibre 24.2g 81%	Sugars 42.1g High 47%	Fat 12.1g Low 17%	Saturates 2.5g Low 13%	Salt 0.43g Low 7%
------------------------------------	----------------------------	-----------------------	--------------------------------	----------------------------	---------------------------------	----------------------------

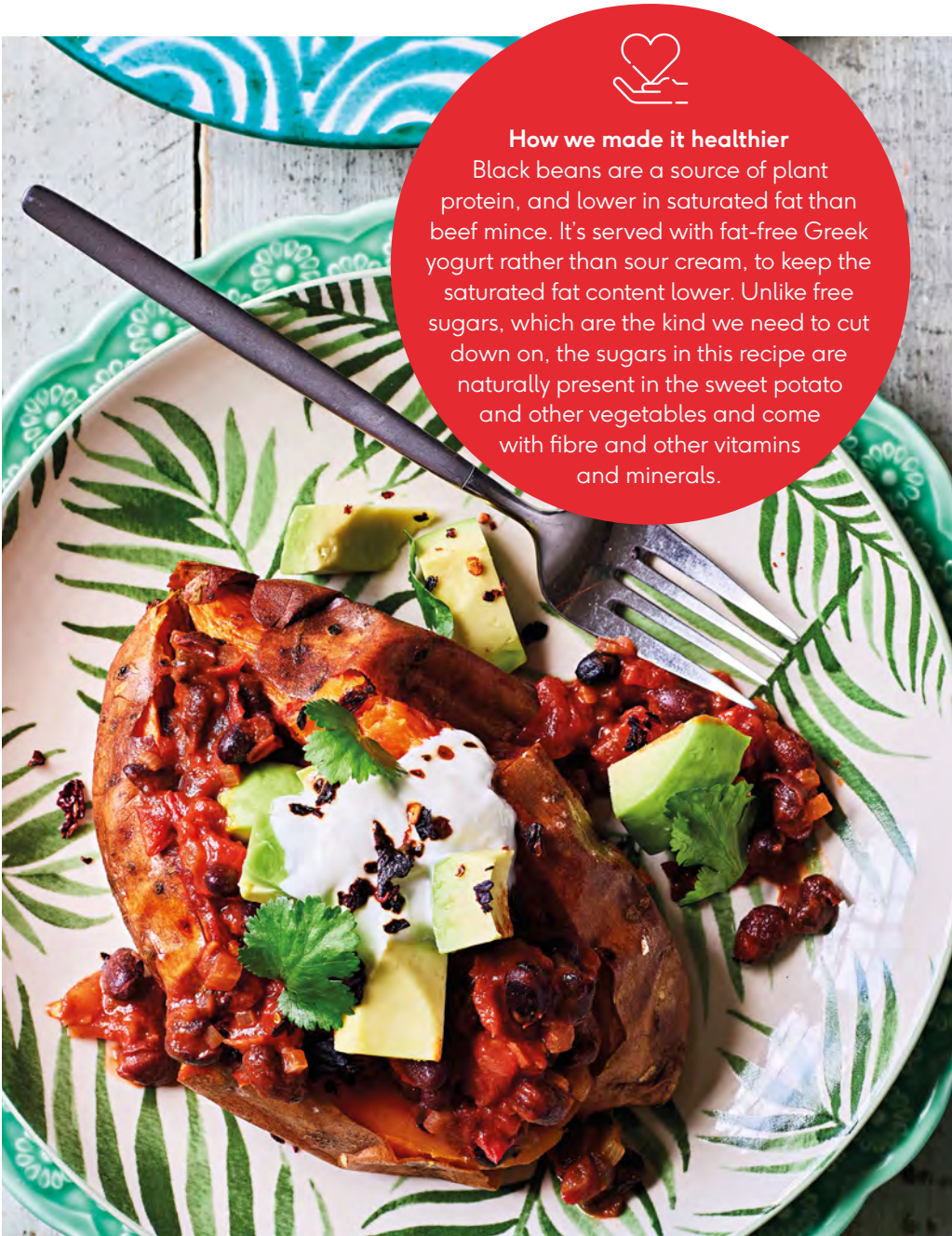
% = of an adult's reference intake (traffic light colours are based on per 100g)

- Ingredients**
- 2 sweet potatoes
 - 2 tsp vegetable oil
 - 1 onion, finely chopped
 - 2 cloves garlic, crushed
 - 2 large tomatoes, chopped
 - ½ tsp chipotle flakes (or smoked paprika)
 - 400g (14oz) can of black beans, drained
 - 2 tbsp tomato puree
 - ½ avocado
 - Juice of 1 lime
 - 2 tbsp 0% (fat-free) Greek yogurt (optional)
 - A few leaves of coriander, to garnish (optional)

- Method**
- 1 Scrub the potatoes, pierce with a knife and microwave for 5-6 minutes or until tender (or bake for 1 hour at 200°C/180°C fan/gas mark 6).
 - 2 While the potatoes are cooking, heat the oil in a frying pan or saucepan and fry the onion over a medium

- heat for about 5 minutes until tender, then add the garlic, tomatoes and chipotle flakes. Cook for another 5 minutes until the tomatoes have softened, then add the black beans and tomato puree. Cook for a further 5 minutes.
- 3 Chop or mash the avocado and sprinkle with half the lime juice. Stir the remaining lime juice into the black beans just before serving, then pile over the halved sweet potatoes. Top with avocado, yogurt and coriander leaves (if using).

Tried this at home?
Tell us what you thought of any Heart Matters recipes you've made, and any things you did differently. Email your thoughts and any photos to HMeditor@bhf.org.uk or write to the address on page five.



How we made it healthier
Black beans are a source of plant protein, and lower in saturated fat than beef mince. It's served with fat-free Greek yogurt rather than sour cream, to keep the saturated fat content lower. Unlike free sugars, which are the kind we need to cut down on, the sugars in this recipe are naturally present in the sweet potato and other vegetables and come with fibre and other vitamins and minerals.



Healthy meals in 15 minutes

When you're hungry and hurried, preparing healthy meals may be the last thing on your mind. But with a few clever tips from Senior Dietitian Victoria Taylor, you can eat healthily when time is scarce

The rule of three for quick and healthy meals
A balanced meal will feel more satisfying and will give you a better chance of having a healthy diet. Having more foods on your plate also provides a greater variety of nutrients. So, make sure you include at least three things, one from each group: a high-fibre starchy carbohydrate (like wholegrain bread and cereals), a healthy source of protein (which could be lean meat, beans, lentils, fish or nuts and seeds), and fruit or veg (either fresh, frozen, tinned in juice or water, or dried).
If you take this approach, you'll often

be getting healthy unsaturated fats at the same time, in foods like nuts, seeds, oily fish or avocado. Or you can add olive, sunflower or rapeseed oil during cooking, or as salad dressing, or as a spread based on one of these oils.
Fibre can make your food more satisfying. As well as starchy carbohydrates, you can build in fibre with beans and lentils, nuts and seeds, and fruit and vegetables.
Three ideas for meals you can make in five minutes
A quick and healthy meal can take five minutes. If your go-to is wholegrain toast, that's your starchy carbohydrate,

so you need to add some protein and some fruit or veg. Have it with baked beans and an apple for dessert. Or you could match it with hummus and carrot sticks, or a tin of sardines in tomato sauce and chopped tomato and cucumber.
If wholegrain cereal or porridge is your quick meal of choice, have it with some milk or low-fat Greek yogurt (or both) with a small handful of nuts or seeds. Then add some fruit like banana, frozen berries or dried apricots.
For a snack, have some crackers or oatcakes with hummus or low-fat cottage cheese and some tomatoes on the side.

Mix and match: for the basis of a quick meal, choose one item from each column

Starchy carbohydrate	Protein	Fruit/Vegetable
New potatoes with skins on	Tinned tuna in spring water	Salad veg (tomato, lettuce, cucumber)
Bulghur wheat	Tinned sardines in tomato sauce	Tinned tomatoes
Wholewheat pasta	Chicken	Tinned or frozen sweetcorn
Jacket potato	Chickpeas	Frozen peas
Wholegrain wrap	Green lentils	Onions
Porridge oats	Red lentils	Peppers
Wholegrain pitta bread	Baked beans	Bananas
Brown rice	Plain, unsalted nuts and seeds	Oranges
Low-sugar wholegrain cereal	Low-fat cottage cheese	Dried fruit (eg apricots, sultanas, raisins)
Wholewheat noodles	Plain low-fat yogurt	Apples
Wholegrain crispbread and crackers	Eggs	Carrots

Planning healthy quick meals
A bit of planning ahead helps you prepare nutritious and balanced meals quickly. For example, you can cook extra portions of your meals and freeze them for another day. You can also keep ingredients ready in the fridge and use them in different combinations for different meals. This could be cooked chicken or lentils, homemade tomato sauce, cooked bulghur wheat or wholewheat pasta, and roasted vegetables.

For times when you don't want to cook at all, stock up on baked beans, tinned fish, unsalted peanut butter, and tinned fruit and vegetables. With a little planning and preparation, you'll have the right things ready when you need them. Eggs are also a good standby for a quick meal. Keep sliced wholegrain bread in the freezer – a slice or two

will defrost quickly, or you can toast it straight from frozen.

Making convenience healthier
If you go for a convenience meal – whether a ready meal, packet noodles or something from a tin – use the front-of-pack labelling to help you make a healthier choice. Look for options where the traffic light colours on the front of a pack are green and orange rather than red (especially for saturated fat and salt).

A balanced meal should contain fruit or vegetables, high-fibre starchy carbohydrates and protein. Look for healthier protein sources like fish, chicken, beans or lentils rather than

cheese or red meat (or processed meats like sausages or bacon). When buying sauces, opt for red, tomato-based sauces instead of the creamy ones, which are higher in saturated fat.
Don't assume that vegetarian or vegan products are a healthier choice. Try to choose meals based on beans or lentils rather than cheese, and remember that meat and cheese substitutes are often high in saturated fat, so it's important to check food labels.
If your meal doesn't come with fruit or veg, add something that's quick and easy, such as a side salad or peas or sweetcorn from the freezer, and have some fruit as pudding. ●

Get more ideas for quick and easy meals
See our 25 meals that you can cook in five minutes or less at [bhf.org.uk/5minmeals](https://www.bhf.org.uk/5minmeals).
See our guide to simple meals with four ingredients at [bhf.org.uk/4ingredients](https://www.bhf.org.uk/4ingredients).

“
A bit of planning ahead helps you prepare nutritious and balanced meals quickly.



Tried this at home?
Let us know if you found any of these tips useful, or if you have your own tips for quick and healthy meals. Email your thoughts to HMeditor@bhf.org.uk, or write to us at the address on page five.



Rebuilding our lives together

A heart condition doesn't only affect the person who has it. Loved ones live through the experience too. Joe and Rhiannon Baxter reflect on changes to their lives after Joe's cardiac arrest

Joe's story

"The first time I saw Rhiannon, I knew I was going to marry her. She's the most genuine person I'd ever met. We moved in together at 24, having only just met, really. In 2014, six or seven weeks into living together, I had a cardiac arrest at the fish and chip shop where I worked.

A colleague gave me CPR and I was taken to hospital. They put me in a coma for three weeks, and when I woke up, I was so weak I couldn't even sit up. I'd had a complication and they had to remove part of my bowel, because it wasn't getting enough blood and stopped working. I was also fitted with an ICD, to protect me if I had any more cardiac arrests.

Coming out of hospital, I did everything possible to get back to work. For a short while, I was learning the ropes of running a fish and chip shop. But I looked and felt very weak. So I stopped working.

At home, I couldn't even walk up the stairs. I was in a wheelchair. I had no job. I felt like I'd lost everything.

In 2015, my ICD fired out of the blue. Rhiannon took me to hospital, and I ended up having multiple shocks from my ICD. The doctors said I was having repeated episodes of ventricular tachycardia (VT – a very fast heart rhythm, which can be life-threatening). I thought I was going to die. I ended up having lots more shocks. They did ►



What I've learned
My cardiac arrest affected other people, not just me. It took a while to understand what Rhiannon must have gone through.

several ablations, to try to stop the VT from happening. I was eventually diagnosed with arrhythmogenic right ventricular cardiomyopathy (also called arrhythmogenic cardiomyopathy or ACM, a condition where the walls of your heart can become weak).

I was also suffering from PTSD, so I couldn't always tell whether the way I was feeling was the anxiety or my heart. At times I wished I'd died when I had the cardiac arrest rather than go through all this and have to live with a heart condition. It took years for me to recover.

I needed a job. I grew up with very little. It gave me the motivation to keep

going, to recover, to pursue my dreams. Now I'm 32, I run a couple of businesses, and I can take care of us.

We got married in July 2022. I've always wanted to share being a Baxter with someone. And I've found the love of my life. But the wedding? It wasn't on my mind. I wasn't well. I just wanted to sign a piece of paper and be done with it.

This whole 'health transition' changed me. It took a toll on me and those around me. I lost a lot of friends.

I'm only now starting to realise the impact my cardiac arrest had on other people. When I was going through it all, my brain was so busy coping, I never thought about anybody else. All

I could think about was being the best version of me. I never stopped to think about what others were going through.

But Rhiannon and I have this bond, this unspoken strength. I don't believe in luck, but when it comes to our relationship, there's no other way to describe it. I wouldn't have survived without her. Not just the cardiac arrest but also the recovery. The thought of doing it again, it's unbearable.

Taylon, our son, has added a motivation to my life. I want him to have opportunity. And I want him to see me grow as a successful entrepreneur. I'm already so proud of him. I want him to be proud of me, too.

He's now old enough to ask about my 'superpowers', as we call them, like the special machine in Daddy's chest.

Walking is our favourite thing. We go on walks around the woods, near where we live in Welwyn Garden City. Even when it's cold, even when it's raining, we just love it. We go on little adventures together, too, which has played a significant part in my recovery.

I feel the skipped heartbeats sometimes. I'm not being stupid about my health. But I'm not letting it dictate what I will and won't do. I want to create opportunities and experiences. This is who I am.

Not every day is good. I practise making the good days last. When I'm stressed or upset, I remember the good days, and I know I'll be on the top of the world again. Sometimes I feel alone in this. But Rhiannon's right there."

"I don't believe in luck, but when it comes to our relationship, there's no other way to describe it. I wouldn't have survived without her."

Rhiannon's story

"When I first met Joe, he was tenacious and full of life – something I soon grew to admire.

Shortly after we'd moved in together, Joe had a cardiac arrest. The doctors told me he may wake up and not know who I was – that he'd have brain damage and lose his short-term memory. I was still a short-term memory.

I told my mum what the doctors were saying. And she said, 'Look, he may wake up and be a different person.' It was terrifying. A part of me was in denial. But another part of me was adamant he was going to pull through and that everything would be okay.

When it happened, my best friend came to the hospital with me. This was just a few weeks into Joe and I living together, and I'd only met his sister, not his parents, not his brother. We were in this family room together, and I went around, saying, 'Hi, I'm Rhiannon.' Without my best friend there, it would have been overwhelming.

At the hospital I did what I could to take in what the doctors were saying and to support Joe's family with the very

tough decisions they had to make. Joe needed to be moved to a specialist hospital for further treatment, but there was a high risk he wouldn't survive the journey. This memory has stayed with me as if it was yesterday.

When Joe got out of hospital, I took him to the local Christmas lights switch-on in a wheelchair, because it was one of his favourite things to go to and he'd rarely missed it. We just wanted to get back to our lives. It took a while before he accepted that he needed to recover. Now, seven or eight years later, his health is still a big part of our lives. Not a central or a defining part, but ever-present.

Living with the fact that my husband has a heart condition is difficult. It's the smallest things. Like when my phone rings unexpectedly, and my initial reaction is to worry, when most of the time Joe is calling to ask where he'd left his phone charger.

Managing fear is very hard.

I never take small things for granted: walking the dogs as a family, sharing coffee, having dinner, even watching a movie at home. These are precious moments that

What I've learned
Planning adventures with family and friends helped us recover and reconnect. It's not always easy but it alleviates the stress.



Information and help

If you or your family are affected by a heart or circulatory condition, our cardiac nurses can help you with your questions or concerns. Call us on 0300 330 3311 (weekdays 9am-5pm), or email hearthelpline@bhf.org.uk. Read more:

- about arrhythmogenic cardiomyopathy at bhf.org.uk/acm
- about cardiac arrest at bhf.org.uk/cardiacarrest.

not everyone gets. I get emotional even talking about it.

Planning our wedding was quite stressful. There was a lot of talk of heart transplants in the months leading up to it, although thankfully, Joe didn't need a transplant in the end. Three months beforehand, we went, gosh, we better organise something. It was lovely to celebrate and to say thank you to all the friends and family that had kept us going.

Joe's condition can be inherited, so we knew there was a chance our son could have it. We talked about it a lot, trying to prepare. Thankfully, Taylon has just had a heart scan, which came back normal. I want him to grow up in a stable home, feeling safe and happy. And I want us to go on adventures together.

Putting myself first doesn't come naturally to me. I work full time as a marketing manager. The responsibility can feel heavy. I try to alleviate that by spending time with friends and family, and planning family adventures. We haven't made it easy on ourselves with two crazy dogs and a toddler. But we wouldn't have it any other way."

- Have a story to share? Email HMEditor@bhf.org.uk or write into the address on page five. ●

Exercise as you get older

Why it pays to keep active as you age
—and how best to do it

Keeping in better shape as you get older has many benefits. It can boost your energy levels, keep you more mobile and lower your risk of falling. All of this means you'll be better able to maintain your independence.

Research (some of it funded by British Heart Foundation – see bhf.org.uk/healthy-later-life) has also linked keeping active as you age with a lower risk of heart disease, stroke,

diabetes, and osteoporosis, and even better brain function.

But often people get less active as they reach retirement and beyond. Rachel Thom, a musculoskeletal physiotherapist at Swanage Community Hospital, has mostly worked with patients over 60 for the last 15 years. She says: "There's a lot of fear and avoidance. People worry they're going to over-exert themselves, or that, because they have joint aches, they might get injured. But generally, we could all be moving more."

"I always tell people, 'Beware the chair.' Spending lots of time sitting still will have a negative effect on your health." ▶

“Keeping active as you age is linked with better brain function.”

Photography by Ollie Holder

Since exercising regularly, Laraine has found it easier to do everyday things, like getting out of a chair, which used to be a chore

Are there any risks?

So, are there any exercises you should avoid as you get older? In short, says Ms Thom, the answer is no: “Age is just a number. If you’ve always run, or you’ve always played tennis, and you’re still enjoying it, don’t stop just because you’ve turned, say, 70 or 80. There may come a point where you want to slow down a little. But there’s no need to suddenly stop.”

The best approach to exercise depends on your own situation, not your age: “If you have a heart condition, you’ll want to check with your doctor if they’re happy for you to take up a new exercise, or how and when you can return to the exercise you used to do.”

However old you are, it’s important to start slowly and build up gradually, whether you’re starting a new exercise or returning to one that you haven’t done for a long time. If you’ve been invited to a cardiac rehab programme, this is a good place to learn what level of exercise is right for you.

“Perhaps you start with walking football, if you haven’t played football for a long time. Or if you swim, you do just two lengths at first and see how you feel the next day. If you’re jogging, you might want to start with alternating between walking and running between lampposts.”

If you have osteoarthritis, Ms Thom says some high-impact exercises involving running, jumping, or sudden twisting and turning, might be less gentle on your joints than low-impact exercise. “But the effects vary from person to person. Any pain you are feeling might not actually be damaging your body, particularly if the hurt doesn’t continue for a long time. It could just be your body getting used to an activity it hasn’t practised much.

“For example, someone might feel their knees hurt if they go up and down stairs, so they avoid that. But I tell

Exercises that help you keep flexible are also helpful, as we tend to get stiffer as we age.

patients, you might feel uncomfortable doing an activity, but if you feel no worse afterwards, you can continue doing it. For many people, if they do it a little every day, the discomfort they feel will improve over time.”

- If you have a specific, recurring pain in your back, hips, knees, or other joints, talk to your GP about being referred to a physiotherapist or find out about self-referring at tinyurl.com/NHSPHysioAccess.

What are the best exercises as you get older?

“The best exercise is one you’ll enjoy and do a lot of – so work out what works for you,” says Ms Thom. “Some people are motivated by the social element of joining a class, they might enjoy going with friends or meeting new people there. Others don’t like the idea of exercising in front of others and so enjoy online videos at home.”

There are some exercises that are particularly helpful as you age. “You tend to lose strength in your legs first, which can put you at risk of falling. Activities where you’re standing, bearing weight through your legs, such as walking, are important to strengthen these muscles. Weight-bearing exercise can also help preserve your bone health and prevent osteoporosis.

“You hear a lot of people say how

Easy ways to get active

- **Group exercise classes:** Check your local leisure centre for free or discounted classes for seniors. Age UK also has classes aimed at over 55s, including dance, tai chi, Pilates and yoga, seated exercises, as well as running/walking football and walking clubs. See ageuk.org.uk or call their free helpline on 0800 678 1602 (8am-7pm daily).
- **Online chair-based videos:** If you’re just starting out, see tinyurl.com/NHSCChairBased for a 10-minute routine designed to improve your strength, mobility and balance.
- **NHS recommendations:** Find NHS exercise guidelines for over 65s and get suggestions for ways to get active at tinyurl.com/NHSExerciseOver65.

good cycling and swimming are, especially if they’re worried about pain in their joints. They’re brilliant exercises for your general health, but they aren’t weight-bearing. Make sure you do some weight-bearing exercise as well. For example, could you walk to the leisure centre before going for a swim?”

Exercises that help you keep flexible are also helpful, as we tend to get stiffer as we age. “If getting down on a mat is difficult, you could find an adapted seated yoga or Pilates class or online video,” says Ms Thom. “Tai chi is great because this ancient Chinese practice involves slow movements that are weight-bearing, and work on balance, strength and flexibility.”

Laraine's story: "It's amazing how quickly you can improve"

Laraine Clarke, 72, from Beeston, Nottinghamshire, has seen huge benefits since taking up regular exercise.

“I’ve been on blood pressure medication since my 20s, after developing pre-eclampsia (a condition that causes high blood pressure in pregnancy). This year, after a year of exercising for 30 minutes, five times a week, my blood pressure has come down to within the normal range. The pharmacist at my GP surgery has been able to cut my medication in half. As my stamina and strength have improved, everyday things that used to be a chore – like getting out of my chair to switch a light on – I now do without a second thought.



It all started in November 2021, when I was in Derbyshire for my wedding anniversary. I was out of breath going up the hills and stairs (at home we live in a bungalow). When I was younger I played badminton and swam, but I’d stopped doing any exercise after having a stroke in 2014, and got out of shape over the last decade. I came back from that holiday with the resolve to do something.

I found seated exercises for seniors on YouTube, and then gradually worked up through standing exercises all the way to doing high intensity interval training (HIIT) aimed at everyone. It’s amazing how quickly you can improve. A lot of older people will be surprised at what they can do.

You have to find what works for you. I didn’t want the bother of going to the gym. With exercise videos at home, I can even exercise in my pyjamas. You do it at your own pace, taking breaks when you need to. As long as you’re doing something, you’re winning.

I used to struggle to walk up my drive without stopping. Now it’s easy to walk 10 minutes into town. We have a big garden and before it was a nightmare to maintain; I was thinking we’d need to downsize. Now I enjoy the gardening. I feel I’m actually living again. To others my age, I’d say life doesn’t have to peter out. You owe it to yourself to try.

A lot of older people will be surprised at what they can do.

Recently I’ve had trouble with my knee and may need an operation. At first, I was devastated. I thought, I’ve worked so hard and enjoyed the results so much. I can’t bear to think I’m going to go backwards. But I’ve adapted how I’m exercising and do seated exercises on days when my knee’s painful. The physio encouraged me to keep going, saying that even if I do need surgery, keeping my muscles strong will help with the recovery.

As you get older, you’re probably going to have problems with things like arthritis, but that doesn’t have to be a barrier to exercise. Don’t let age stop you. Exercise has given me the stamina to do things like getting down on the floor to play with my grandkids, instead of just sitting back in a chair, watching.

Life isn’t meant to be a spectator sport, whatever your age.” ●

Tried this at home?

Have you tried any of the tips in this article? Email your thoughts (and perhaps send a photo of you trying out the exercise, if you can) to HMEditor@bhf.org.uk or write to the address on page five.



Can we stop the heart getting older?



Professor Paolo Madeddu and his team are working to delay the ageing of the heart. He tells Dr Leanne Grech how this research could allow older people to live a healthier life for longer

Each day, your heart beats around 100,000 times, continuously pumping about eight pints of blood around your body. By the time you are 20, the heart's function can begin to decline as part of normal ageing. As you get older, activities like running or playing tennis can become more difficult. However, some 100-year-olds, like those living in Okinawa, a cluster of islands in southern Japan, appear to have unlocked the secret to a long and healthy life, with some of them seemingly having a heart younger than their age. "It's a combination of a good lifestyle and good genes," explains Professor Paolo Madeddu at the University of Bristol. "And we have discovered that one of these good genes can slow down ageing."

In humans, ageing can affect many parts of the body, including weakening the heart and circulatory system. For example, heart failure can occur, which is a serious and sometimes disabling condition with no cure other than a heart transplant. Scientists are now beginning to understand how some natural variations in our genes might protect against heart diseases linked to ageing, such as heart failure.

The gene that can delay ageing

Most genes contain instructions for the production of a specific protein that does one or more jobs in the body. A gene variant is a permanent change in the DNA of a gene, which can affect the protein it produces.

Professor Madeddu and his team have discovered that a naturally occurring variant of the BPIFB4 gene, which is more common in people who live to 95 or more, could help keep the heart young. This variant is associated with long life, helping protect against atherosclerosis (build-up of fatty material inside your arteries) and high blood pressure. The team have already learned that delivering this gene variant to old mice helped with high blood pressure and increased the amount of blood sent to the muscles.

Professor Madeddu and his team in Bristol have received more than £172,000 of funding from British Heart Foundation for this study. They have already tested (in mice) delivering the variant via gene therapy injections. In gene therapy, the gene is often inserted

"I hope that the results of my work can make a difference to the lives of many patients."

into a harmless virus, which can take the gene inside the cells where it is needed. But the immune system may limit the effects of gene therapy over time, building up antibodies that stop future injections working properly.

So instead, the new research is using the protein produced by the gene variant, without the gene variant itself, or the use of a virus. This protein can be taken as a tablet every three days, and the hope is that its effects will last longer than those of gene therapy. Professor Madeddu and his team will

"We have discovered that one of these good genes can slow down ageing."

test this in mice. If it succeeds, they hope to run a clinical trial in humans.

"The study will show if this approach could work. More studies are needed to show it is safe – it's a human protein and not a [new] drug, which is encouraging. But producing a lot of protein is extremely expensive, and we'll need investors or an industry partner in the future."

Helping older hearts

Professor Madeddu has been interested in the heart since medical school:

"Research takes a lot of determination. I hope the results of my work can make a difference to the lives of many patients."

More than 12 million people in the UK are over 65. Life expectancy had been rising for decades but increases have slowed since 2010, and life expectancy has fallen since the Covid-19 pandemic. Professor Madeddu's research aims to help older adults stay healthy and independent for longer.

"There is no current treatment to stop the heart's ageing, and the drugs we use can cause side effects in seniors," explains Professor Madeddu. "We hope that giving older people a protein that's present in healthy people over 100 helps their hearts work better for longer. We want to increase health rather than combat disease. If we can delay ageing of the heart, we may be able to prevent serious disease in older people." ●

Support our groundbreaking science

Your donations help fund our lifesaving research. If you'd like to donate, visit bhf.org.uk/HMdonate, call 0300 330 3322, or send a cheque, payable to 'British Heart Foundation', to British Heart Foundation, 2300 The Crescent, Birmingham, B37 7YE. Please mention Heart Matters when you donate.



A day in the life: Dr Syabira Yusoff

"I love doing research that could help people like my brother, who has heart problems"



Did you know that The Great British Bake Off winner Dr Syabira Yusoff is also a British Heart Foundation-funded scientist? She reveals how she finds time to bake alongside her research



If I'm working on a new recipe, I'll get up at 5am to start making it. Usually I plan out how I am going to do it the night before. I write down notes so I can switch off, have a good night's sleep, and be ready to weigh out ingredients as soon as I'm up. Then, if it's a pastry for example, I can leave the dough chilling in the fridge while I go to work.



On my commute into the lab where I work at King's College London, I might look on the internet for baking inspiration, or read a book on combining flavours, to understand it better.

As a researcher, I'm used to gathering all the information I can before I do an experiment. I take the same approach to baking.



When I get to work, I put in my earphones and leave behind all thoughts of baking. My team's research is focused on how, as we age, blood vessels get harder and stiffer because of calcium deposits. We know this is linked to developing high blood pressure and an increased risk of heart attacks and strokes.

From previous research we know that when RUNX2 (a gene known to be involved in bone formation) is 'switched on' in blood vessels, they become calcified. But in real life, it's never just one gene acting alone. So we're trying to understand which other genes and proteins are involved in the hardening (calcification) of blood vessels. We can then look for drugs to help stop this process.

In the lab, we add calcifying chemicals to cells taken from human

blood vessels. We then watch them harden over 10 to 12 days. This mimics what happens in real life in blood vessels over many years, or decades. We take DNA and other samples from the cells on different days. This way we can understand which genes are 'switched on' and which proteins are present at different stages of the hardening process.

“As we age blood vessels get harder and stiffer; this is linked to high blood pressure and an increased risk of heart attacks and strokes.”



I eat early so I'm often having lunch when other researchers are having coffee. Sometimes I'll bring in my cakes for others to try. Lunch is typically leftover curry, rice, or noodles that I made for dinner the night before.



I specialise in bioinformatics, which means using computer programmes to understand biology. When I first started, I was studying plants. But I've always wanted to get experience working on human bioinformatics. My brother has had

heart problems since he was a teenager, and I wanted to focus on an area of science close to my heart. I love doing research that could help people like him.

If I finish my lab work in the morning, I'll spend the afternoon analysing the results. For example, DNA is made from four different molecules known by their first letters: A, C, G and T. If you watched me in Bake Off, you might have seen the DNA cake I made, with these letters on.

In any sample taken from our experiments, there may be tens of thousands of these letters. At first, it's not clear what they mean. Imagine that the DNA is Latin, and you have a whole library's worth of it. My job is to translate this 'Latin' with computer programmes into something understandable.



When I get home I'll shape the dough I made earlier, add fillings, bake it, and decorate it.

Baking can be a bit like therapy, a chance to unwind from the research. When you're doing research, it takes a long time to find answers, and experiments often don't go to plan. But baking has taught me you can't control everything. Sometimes things just don't work.

And when I do achieve a good bake, however small a success it is, it gives me confidence to go back and tackle research questions that I haven't solved yet. ●

Discover more about our research

Look behind the scenes and discover how research funded by British Heart Foundation happens at bhf.org.uk/dayinthelife.

To support more groundbreaking science, like Dr Syabira Yusoff's, visit bhf.org.uk/HMdonate.

Ask the expert



Professor Iain McInnes
Vice-Principal at the University of Glasgow and an expert on inflammatory arthritis

Q I have psoriatic arthritis. Should I be worried about my heart?

A Professor Iain McInnes says:
Psoriasis is a skin disease caused by the immune system. About a third of people with psoriasis also develop arthritis, which may affect the hands, feet, knees, and spine. People with psoriasis and psoriatic arthritis are at increased risk of heart attacks, angina and stroke.

Lifestyle factors (such as excess weight and low activity levels) contribute to the risk of heart disease, but inflammation increases it further in people with psoriatic arthritis. Chronic inflammation can damage the blood vessels and heart muscle. And it can drive other changes, such as in fat (cholesterol) metabolism, leading to disease. Research is looking at specific biological pathways in the heart, blood vessels and brain to help reduce these risks. Other studies are examining inflammation markers involved in heart disease and identifying people who can benefit most from early treatment.

Controlling immune disease activity, for example

Send in your health questions

Email: hearthelpline@bhf.org.uk

Call our Heart Helpline: **0300 330 3311**

Write to: **Heart Matters, British Heart Foundation, 180 Hampstead Road, London NW1 7AW**

by taking your medications, can reduce your risk of heart problems. But it's still important to stay vigilant. Tell your GP, rheumatologist or dermatologist that you want a heart health check: blood pressure, cholesterol levels and body mass index checks. If you've already had a heart attack or stroke, your blood pressure and cholesterol need to be carefully managed. You can help reduce your own risks by eating a healthy diet, being active and not smoking.

Your dermatologist, cardiologist and rheumatologist may each look at a different part of your condition, which can feel challenging. But you're the owner of your future and at the centre of a multidisciplinary team. Ask about your cardiovascular risk at a dermatology or rheumatology clinic. A way into the conversation is saying: "I've been learning about my disease and that I may be at a higher risk of heart problems. Can you tell me more or reassure me?" The specialists should factor these risks into your treatment plan.



Q Are heart attack symptoms different for men and women?

A Chloe MacArthur says:
The myth that men and women experience different heart attack symptoms has been around for a long time. Symptoms can vary from person to person, but there are no symptoms that are more common in women than in men. Misconceptions around symptoms may make women less likely to seek and receive treatment. These misconceptions may also delay diagnosis, making poor outcomes more likely. Coronary heart disease kills more than twice as many women as does breast cancer in the UK every year. But despite this, it's often considered a man's disease.

The most common signs of a heart attack are:

- sudden and persisting pain or discomfort in the chest that feels like pressure, tightness or squeezing
- the pain may spread to either arm, the neck, jaw, back or stomach
- you may also feel sick, sweaty, light-headed or short of breath.

If someone is having a heart attack, treatments to restore blood flow to the affected part of the heart muscle must be given as soon as possible to help limit the extent of damage to the heart.

- If you think you're having a heart attack, call 999 immediately.

If you'd like to know your risk of heart disease and you're aged 40–74 and living in England, you can ask for an NHS health check. Similar schemes are also available in other parts of the UK.

You can read more about the gender gap in heart care in our Bias and Biology report at bhf.org.uk/biasandbiology.



Chloe MacArthur
Senior Cardiac Nurse at the British Heart Foundation

Q Will aspirin give me stomach problems?

A Chloe MacArthur says:
Aspirin is one of the most common medicines taken by people with heart and circulatory conditions. It reduces the risk of heart attack and stroke, and is generally safe to take for a long time. However, for some people, it can increase the risk of stomach symptoms like indigestion, nausea and, in some cases, stomach ulcers. But there are simple measures you can take to keep the risk of stomach problems low.

Always make sure to take your medication as your doctor prescribed it. They may also give you more specific information about how best to take it. Tell them before you start taking aspirin if you've had stomach issues in the past. Aspirin is best taken with or just after food, not on an empty stomach. You don't need to avoid any foods,

but avoiding too much alcohol will help prevent stomach irritation.

Don't take other anti-inflammatory drugs, like ibuprofen and naproxen, when you are taking aspirin, unless you've checked with your doctor first.

If you get stomach symptoms while taking aspirin, ask your doctor about enteric-coated versions (if this isn't what you take already), which are kinder to the stomach. Make sure you follow the instructions on how to take them.

If you're still having stomach issues, your doctor may prescribe another medication to help protect your stomach, so that you can keep taking aspirin to keep your risk of heart attack and stroke as low as possible. Speak to your doctor if you have any other worries. ●



The tooth of the matter: how are gum disease and heart health connected?

Having healthy teeth and gums can have benefits far beyond the mouth. Phoebe Kitscha speaks to British Heart Foundation-funded researcher Dr Karolin Hijazi, who is investigating the links between the bacteria found in our mouth and heart attacks

"It's completely normal and healthy to have bacteria in your mouth. But what we don't understand is how they can shift from being completely harmless 'good' bacteria, to ones that cause gum disease and are linked to heart attacks," says Dr Karolin Hijazi, at the University of Aberdeen.

You might have heard of the 'human microbiome' before, referring to the many microbes – mostly bacteria, but also fungi and viruses – that live on or in the human body. It's been estimated that the average human body contains about 30 trillion human cells, which are outnumbered by the 38 trillion bacteria in us.

The microbes in our body are often talked about in terms of gut health, and it's true that many of them live in our gut. But there's growing evidence that just as many, or more, live in our mouths, where around 700 different species of bacteria have been identified. In general, this isn't

700
– the number of different types of bacteria found in our mouths

a bad thing. Some of these bacteria have been found to help break down food and limit the growth of disease-causing bacteria.

But bacteria in the mouth can also turn 'bad'. They can infect the gums, causing inflammation and bleeding. If left untreated, this can cause inflammation of the parts which connect our teeth to the underlying bone. Gum disease can lead to tooth loss and has also been linked to an increased risk of developing heart or blood vessel problems. But we still don't really understand how gum disease and cardiovascular disease are connected.

How bacteria 'switch' from good to bad

With the help of British Heart Foundation funding, Dr Hijazi wants to advance our knowledge in this area. Having first developed an interest in microbiology during her training as a dentist, she now leads a research group at the University of Aberdeen focused on understanding how microbes interact with mucosal surfaces – parts of our body that form a barrier between the internal and external environment, such as the lining of the mouth. She says: "I'm very interested in how bacteria can colonise the body, and in general be harmless. But under certain conditions, they can switch on genes that help them to do things like get into the blood stream or 'hijack' our immune system, causing inflammation."

In this British Heart Foundation-funded project, Dr Hijazi and her team are looking at a type of bacteria called *Porphyromonas gingivalis*, ►

or P gingivalis for short (gingivalis means 'out of the gum'). It's known to be involved in the development of gum disease, but has also been linked to coronary artery disease and heart attacks.

About 20 years ago, it was shown in mice that being infected with this bacterium speeds up atherosclerosis – the process of fatty material building up in the arteries. We don't know exactly why this happens. But it's likely to be caused by the bacteria's effects on the immune system, leading to the release of chemical signals that cause inflammation. Inflammation is a normal part of the immune response to infection or injury, but when it becomes long-term, it can lead to atherosclerosis.

The team recently carried out a study of 160 people admitted to Aberdeen Royal Infirmary with a heart attack. About two-thirds of the people involved had a severe gum infection. The researchers found that people with higher levels of P gingivalis in their mouths tended to have more damage to their heart (based on the amount of the protein troponin in their blood) and more fatty build-up in their coronary arteries. They also looked at levels of bacterial genes involved in the switch from the bacteria living harmlessly in the mouth to becoming 'bad' and causing inflammation. Levels of these molecules were also increased in people with more severe heart damage and coronary artery disease.

In this new project, the team want to look into how exactly P gingivalis

“People with higher levels of these bacteria in their mouths tended to have more damage to their heart.”



2 out of 3 people with heart attacks in an Aberdeen study had a severe gum infection

switches on its 'bad' genes, and whether this differs in people who have had, or are at a higher risk of, a heart attack. Epigenetics is a field of research which looks into how different genes in cells are switched on and off. Most of this research has been based on human and animal cells, with much less based on bacteria – even though epigenetics could play an important role in the development of disease. Dr Hijazi says: “We are the first to look at this in bacteria found in the mouth.”

Studying people who've had heart attacks

Dr Hijazi and her team will be recruiting people who have recently had a heart attack, people with stable angina, and people without coronary artery disease. Participants will have a dental exam and samples taken from their mouth, so the researchers can analyse what is going on inside the P gingivalis they find there. The research team want to see if there are epigenetic variants of this bacterium linked to having a heart attack, and other markers linked with

worse outcomes after a heart attack. They also want to better understand how this variation gives the bacteria disease-causing properties, like being able to change immune responses.

“Finding a connection between the epigenetic status of P gingivalis and heart and blood vessel health may pave the way for more research to see if the same is true for other bacteria found in our mouth. Most importantly, it may show if we can intervene to improve things. For example, does treating gum disease alter the epigenetic make-up of our oral bacteria? And does doing that reduce the risk of having a heart attack?”

“More broadly, if we can show this mechanism in the context of gum disease and the heart, it could open a whole range of new avenues to look into in other diseases too. Could a similar way of switching genes on or off exist in gut bacteria? Could that help explain the links between our gut health and conditions like rheumatoid arthritis or Parkinson's disease? It really could open new horizons in our understanding of how the trillions of microbes in our bodies can affect our health.”

- Find out more about research into the links between oral health and heart disease, and how you can help prevent gum disease, at bhf.org.uk/teeth. ●

A woman with shoulder-length brown hair and glasses is sitting on a red velvet sofa. She is wearing a blue V-neck top under a mustard yellow cardigan and a necklace with circular beads. She is smiling at the camera. In the background, there is a white paneled door.

**"I'm like a battery that
never
charges"**

Long Covid has meant Kerstin Sailer had to put a successful career as an academic on hold and take a step back from the family activities she loved. Despite symptoms that can feel overwhelming she's still hopeful she'll regain her health ▶

Before she got Covid in October 2021, Professor Kerstin Sailer, 46, from London had a busy life as an academic and a mum of two daughters. She says: “The year before I got Covid I was made a professor. My job was very busy, but I loved it.”

Kerstin, who was vaccinated when she got Covid, says: “I had a headache, muscle aches, fever, shivers. I thought I’ll just be in bed for a week or two and then it will be OK.” But after a couple of weeks, when she started to work again, she didn’t feel better, and fatigue set in. Around November she developed chest pains, and her heart was sometimes racing. “I told my husband, Christian, it felt as if I had a constant brick on my chest, it was so heavy. If I went up a flight of stairs my heart would start racing, and it would stay like that for minutes on end. And I was tired all the time.”



One day when she had palpitations, Kerstin called 111. “They were really supportive. They sent an ambulance and said we need to rule out any heart-related issues. I was taken to hospital, where I had an ECG and a chest X-ray, and I was told everything was fine. I had low vitamin D levels, and I had some slight anaemia, so I was discharged and told to take vitamin D and iron supplements. And I think my experience of being discharged without any clear answers is a pretty regular occurrence for lots of people with long

“
I had a great family life, I was a successful academic. All of that changed.

Covid, because we don’t know exactly how to treat it.”

Impact on work and home life

Kerstin took three weeks off work over Christmas. But in January 2022, she was still unwell and realised she needed to be signed off on sick leave. “I realised this wasn’t going away. Those were difficult days, both for my physical and mental health.” Kerstin took 14 months off work before returning part time recently. “I’m pleased to return but I’m taking it slowly, as I’m not back to full health.”

Before she got Covid, Kerstin was “a really normal healthy and fit person”. But since developing long Covid: “I felt like a battery that never charges properly. It felt like something is fundamentally wrong, but no one can tell me what it is.”

Chest pain and fatigue are the two main symptoms she struggles with, as well as “crashing” after exertion, even just working for two hours on her laptop. “When I overdo it, my symptoms flare up.” Kerstin also finds many other symptoms come and go, including bouts of insomnia, headaches, dizziness, coughing, “brain fog”, when she can’t focus or think clearly, joint pains, numbness in her fingers and arms, and problems regulating her temperature.

Long Covid has also had a big impact on Kerstin’s home life. “If I unload a dishwasher or I pack away a week of groceries I am very out of breath and I have to sit down afterwards. My husband has been stepping in and stepping up. He gets our daughters ready for school each morning and he is doing 90 per cent of the housework.”

Getting treatment and help

After 12 weeks of symptoms, Kerstin’s GP referred her to a long Covid clinic. She is being treated for chest pain, fatigue, and some of her other

symptoms both through the specialist long Covid clinic and by her own GP.

“The long Covid clinic diagnosed me with postural orthostatic tachycardia syndrome (PoTS), which causes a drop in the blood supply to your heart and brain when you move to an upright position, making your heart race. They also diagnosed other problems with the part of my nervous system which regulates unconscious functions such as heart rate, blood pressure and body temperature. It explained the trouble I’ve been having with night sweats, temperature regulation and dizziness. They put me on a high-salt diet. The thinking behind that is that if you drink a lot of water and also increase your salt intake you will increase your blood volume, which makes it easier for your circulatory system. And it means your heart doesn’t have to pump so hard when you have a drop in blood pressure.

“I started on beta blockers to control my heart rate, which also helped the chest pain, by reducing the workload on the heart.”

Finding support

Kerstin describes long Covid as like “everything unravelling”. She adds: “It affects your identity, the view you have of yourself as a healthy individual and a mother. I had a great family life, I was a successful academic, who could think and respond. All of that changed.”

She says it’s an extra challenge having a health condition that so little is known about. As well as fantastic support from her husband at home and



colleagues at work, the first thing that helped her was finding peer support. She found a worldwide support group called ‘Body Politic’, which has a messaging app where its 11,000 members can chat.

“Just to be heard, to be seen, to be understood, saved my life. Suddenly I’d get a new symptom and I could write and ask on that channel and find people who had been through the same thing.” Kerstin also keeps a log of her daily symptoms and activities to try to find triggers and understand a little better what she can and can’t do.

She has also taken part in the ENO Breathe programme by the English National Opera, designed for long Covid patients (see eno.org/breathe). “We use vocal cord and breathing exercises like opera singers do. It helps singers warm up their voices and increase their lung capacity. It helps long Covid patients, too. We learnt to sing a different lullaby each week and I still sing some of them, pretty much daily.

“It lifts my mood, helps with breathing, and reminds me that things can get better.” ●



Have you got long Covid?

Have you found aspects of this article useful or do you have tips to share about managing your symptoms? Email your thoughts to HMeditor@bhf.org.uk or write to the address on page five.

Information and support

- Find out more about how to manage the symptoms of long Covid at bhf.org.uk/longcovid.
- Visit yourcovidrecovery.nhs.uk for tips on eating and sleeping well, getting moving again and managing daily tasks.
- Speak to your GP about any lasting symptoms and ask about being referred to a specialist long Covid clinic.
- Find an online support group such as Long Covid Support (longcovid.org).



Hosted many
movie nights.
Now making science
not fiction.

Turn your STUFF into SCIENCE

To donate your preloved stuff, book a free
collection, drop in store or post for free.

Visit bhf.org.uk/donateitems
or call 0808 250 0235