SEPTEMBER 2015 WORLDHEARTDAY.CO.UK

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Cardiovascular health

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Are you at risk? Sarah Clarke and Robert Henderson relay the facts of cardiovascular disease

READ MORE ON WORLDHEARTDAY.CO.UK Heart Valve Richard Bazne



Heart Valve Disease Richard Bazneh at the British Heart Valve Society explains the basics of heart valve disease

Cardiovascular health: keeping up the good work

Fewer people are dying from cardiovascular disease (CVD) than ever before, thanks to efficient translation of excellent laboratory science into new treatments, but the battle is far from over, says Professor Peter Weissberg, medical director of the British Heart Foundation.

n the UK, there has been remarkable success over the last 50 years in reducing mortality from cardiovascular conditions. For instance, deaths from co-

ronary heart disease (the build-up of plaque in the heart's arteries) have more than halved since 1961 but it remains the single biggest killer in the UK. Heart and circulatory conditions remain a leading cause of mortality, killing around 160,000 people each year. Further, conditions such as sudden cardiac death (SCD), which may occur because of problems with the heart's muscle or electrical rhythm, are increasingly influencing mortality in the young. An NHS audit found that every year, around 600 people under 35 die suddenly from an undiagnosed heart condition, including SCD.

Preventing CVD

The fact is, while mortality has decreased steadily in recent years, the number of CVD cases has increased. Partly this is because the UK population is ageing, and cardiovascular disease occurs primarily in the elderly. But there is another factor. Although more people survive thanks to improved diagnosis and treatment, they often do so with significant ongoing problems. Hence the importance of preventing cardiovascular disease in the first place by addressing modifiable



Professor Peter Weissberg Medical director, British Heart Foundation

"Supporting research is paramount for CVD prevention" risk factors such as smoking, diabetes, obesity, physical inactivity, and high blood pressure and cholesterol.

Unfortunately, we tend to target people over 50, who are already inherently at high risk because of their age. Prevention should start much earlier, with an assessment of the risk of developing CVD over a lifetime, rather than in the next 10 years as currently done. This way people would be able to take appropriate steps to lower their risk of developing CVD later in life.

That is not to say that cardiovascular disease would be eradicated if everybody led a wonderfully exemplary life. Aside from lifestyle factors, there are many underlying reasons why people get heart and

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circulatory diseases and we simply don't know enough about this yet. That's why supporting research is paramount. We have already made huge progress, improving our ability to diagnose heart attacks early through better blood tests, and identifying genes that increase the risk of certain conditions so that treatment can start before severe damage occurs. And research is already underway to coax the heart to repair itself - something that only a few years ago would have been regarded as science fiction. By applving the same amount of research effort to future goals, we are determined to make more progress and help more people live longer, healthier lives.

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- MRI-scan pelvis (lower abdomen) bladder, aorta, lymph glands, lower spinal column, prostate (men), uterus & ovaries (women) and pelvis
- Cardioprogram
 ECG at rest, Echocardiograph/Doppler
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Why occurrence based v usual contractual cover?

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Healthy heart choices for everyone, everywhere

World Heart Day, set up by the WHF to combat cardiovascular disease (CVD), has been instrumental in advocacy and in implementation of preventive measures for CVD on a global scale.

orld Heart Day was set up while Antoni Bayés de Luna was president of the WHF from 1997 to 1999. The need to designate a special day for activities to prevent heart disease and stroke grew from the challenge posed by the escalating burden of CVD and the recognition that much of the mortality was preventable, particularly in the setting of developing countries.

World Heart Day is an ideal opportunity to scale up efforts at the country level within a globally led initiative. A whole day dedicated to CVD prevention is an effective way of engaging the media, the public, policy-makers, and health professionals in information dissemination, awareness creation, and advocacy, and enables decision-making bodies to track positive progress.

Future goals

In 2013, the World Health Organization (WHO) adopted a global target to reduce premature non-communicable disease (NCD) mortality by 25 per cent by 2025. The World Heart Federation recognised that achieving this would require a primary focus on cardiovascular disease (CVD). So we adopted the same 25by25 goal for CVD to work towards the reduction of premature death from CVD, including heart disease and stroke.

CVD, including heart disease and stroke, is the leading cause of death and disability worldwide. It kills 17.3 million people a year, amounting to one third of all deaths globally and half of all NCD-related



Johanna Ralston CEO, World Heart Federation

deaths. 80 per cent of these deaths are in low- and middle-income countries where human and financial resources are most limited to address them, and the vast majority of CVD deaths are premature and preventable, belying the myth that CVD is a "disease of affluence" and cannot be avoided. There is still a disturbing gap between the burden of CVD and the priority it receives in donor and national health agendas. World Heart Day can help to address this gap: the prevention and control of non-communicable diseases, primarily heart disease, stroke, and cancer.

World Heart Day plays a crucial role in offering the CVD community a platform to raise awareness and encourage individuals, communities and governments to take action to reduce the burden of CVD and reduce premature CVD deaths by 25 per cent by 2025.

Raising awareness

Another myth around CVD is that it is limited to high income countries and specific age and population groups. Efforts to prevent heart disease and stroke, and protect people from the risk factors that cause them, are required throughout people's lives, from conception through to the end of life. Through World Heart Day, the global heart health community encourages individual and their families to make healthy heart choices, including adopting and supporting healthy diets, smoking cessation, increasing exercise and reducing salt intake.

By working together, we can unite our efforts to prevent a significant proportion of the 17.3 million deaths that occur each year. ■





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Keeping the rhythm

utting-edge developments in medical research and technology are revolutionising the management of atrial fibrillation, giving patients greater options than ever before. Atrial fibrillation is the fast, irregular beating of the heart's upper chambers, or atria. It is often difficult to diagnose due to its asymptomatic nature. And, while not life threatening per se, it can cause blood clots, increasing by five times the risk of stroke – the second leading cause of death worldwide. Anticoagulants (blood thinners) like Warfarin are the cornerstone of treatment for atrial fibrillation. They can reduce stroke risk by 70 per cent but are not useful for treating the condition, for which patients need other therapies.

Revolutionary changes

Research advances have led to the development of new treatments and devices that are revolutionising atrial fibrillation diagnosis and management. Patients can now use smart phone apps to monitor their heart



Consultant cardiologist, electrophysiologist, Royal Brompton and Harefield Hospitals, London rhythm and detect irregularities. And novel anticoagulants are available that are more effective and have lower bleeding risk than warfarin.

A new nonsurgical procedure, which involves the sealing off of a small appendage in the left atrium where clots may form, can be used for stroke risk reduction in patients unsuitable for anticoagulant therapy. Another minimally invasive procedure, called catheter ablation, uses heat to destroy areas inside the heart that are causing rhythm problems. It is effective at stopping atrial fibrillation and possibly also at reducing stroke risk.

More to come

Non-invasive systems are being developed that allow creating 3D maps of the heart's electrical activity during a single heartbeat. While this is still quite experimental, it will be very useful in the near future for identifying the exact areas where rhythm abnormalities originate from.



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Dr David Fox Consultant cardiologist and electrophysiologist at the University Hospital of South Manchester and the Alexandra Hospital, Cheadle.

What are ablations?

It's a minimally invasive keyhole procedure carried out through a blood vessel in the groin call the femoral vein, which we use to treat a type of heart arrhythmia called atrial fibrillation, a condition that can cause an irregular or abnormally fast heartbeat. The femoral vein is closely located under the skin and is wide calibre. Heading north through it using a steerable catheter with an electrode we can get into the right atrium of the heart — and, from there, anywhere into the heart — locate the short-circuit causing the abnormal rhythm and burn it away.

What are the benefits of an ablation?

An ablation is usually carried out under local anaesthetic with a little intravenous sedation so the patient is relaxed and can talk. There are no stitches required and it's not usually painful. Operations last an hour or a few hours — so the longest a patient should need is an overnight stay.

Who treats heart rhythm problems?

Patients with heart rhythm problems, even if they are only experiencing them once or twice a year, should see an electrophysiologist – a sub-group of cardiologists who investigate, diagnose and treat them with either medication or ablations. First port of call is your GP.

Is an ablation always necessary for heart arrhythmia?

It depends on the kind of arrhythmia. Symptoms of atrial fibrillation — which can carry a risk of stroke if left untreated — include palpitations, tiredness, breathlessness, dizziness or chest pain. Another type of arrhythmia called SVT — or supraventricular tachycardia, which often affects younger people — doesn't carry that risk. If the cause of symptoms is an SVT or atrial fibrillation, the patient might consider an ablation which can cure the problem in around 90 per cent of cases.

Read more at worldheartday.co.uk

Close to their heart

Heart problems can affect anyone. Four celebrities tell their personal stories, and why they're campaigning to raise awareness.

Lee Mears

Former Bath and England international rugby player Lee Mears retired from the game due to a life-threatening heart condition.

"My first check was in 2007 before the rugby World Cup. It had always been normal until this year, when the test results were a little bit different. They spotted something unusual on the ECG."

"Professor Sharma explained that if I kept doing highintensity exercise, it could be fatal, which came as a total shock. It was surreal to hear someone say it – even though you know your professional career will end one day.

"I had little choice but to give up professional rugby. When you have a family and there's a chance you could have a cardiac arrest, I don't really think there's a decision to be made.

"The British Heart Foundation fund life-saving heart research that helps people like me. I can't stress their importance enough."

CARDIOLOGY



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Kym Marsh

Kym's family have been personally affected by heart disease. Her father had a cardiac arrest at the age of 49, and a heart attack two years ago, when he was 67. Kym's son, David, contracted a heart infection last year (2014), despite having no known pre-existing heart conditions.

"You never think something like heart disease is going to happen to you or someone you love. Dad having a heart attack was such a scary time for us, particularly that period of uncertainty of whether he would pull through and how it would affect him long-term. When my son David got a heart infection, despite always having been fit and healthy, I was terrified he wasn't going to make it. He is only 19 years old but was in hospital on antibiotics for a week and he's still not allowed to play too much sport. I know the terrible effect that heart disease can have on a family. The British Heart Foundation's work is invaluable."



Justin Webb

BBC Radio 4 Presenter

"In November 2012 I narrowly escaped having a massive heart attack. If it weren't for the incredible advances that have been made in preventing heart attacks, mainly down to British Heart Foundation research, I wouldn't be here now.

> "Doctors at King's College Hospital performed what proved to be life-saving angioplasty to clear an almost completely blocked coronary artery. I was given a stent and I feel great, but so many others are not so lucky."



"I support the British Heart Foundation because I have a history of heart disease in my family. My grandmother died from a ruptured aorta, my uncle had a double bypass, and my dad was diagnosed with a weak heart muscle in 2006 and told he had come dangerously close to having a heart attack.

> "The British Heart Foundation has funded decades of research to make sure more people survive heart surgery. I am so proud to help the BHF continue its fight against heart disease."

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This article is initiated and funded by Novartis Pharmaceuticals UK. Editorial control remained with the authors.



Sixteen years as a heart failure specialist and I still find treating heart failure an interesting challenge. There have been significant developments in treatments over the last 20 years and new ones on the horizon.

The increasing prevalence of heart failure, means we spend a lot of time worrying about demand on services, meeting targets and getting guidelines right to improve outcomes for our patients.

Every day, however, I am reminded by my patients that listening to their individual needs and addressing even the smallest of problems makes the biggest difference.



Louise Clayton Senior heart failure specialist nurse University Hospitals of Leicester

"The NHS has started to get to grips with the huge problem of heart failure. Every hospital monitors how well it is performing and NICE has issued clear guidelines.

Several things are key to a good outcome: rapid diagnosis, access to top quality treatment (with drugs and, if necessary, pacemakers/ defibrillators) and good advice from a heart failure team on how to live with the condition.Regular check-ups are essential to make sure the condition is stable."



Professor Martin R Cowie MD MSc FRCP FRCP (Ed) FESC

Professor of cardiology, Imperial College London (Royal Brompton Hospital)

"For me feeling positive came through learning about the condition. At the beginning I was monitoring my body constantly. Now I have times when I'm not thinking about my condition. I won't let it take over my life.

"It's important to have a support team to turn to if you're having a bad day. If you have a blip, don't panic, you'll be fine tomorrow! "People say 'You look so well!' This is a hidden condition you have to manage from day to day."



Julie Bartlett Heart failure patient and patient educator at Pumping Marvellous

Getting to the heart of the matter

What you need to know about heart failure

Affecting about 800,000 people in the UK, heart failure is a life-changing condition where the heart muscle is damaged and cannot pump enough blood around the body. It costs the NHS £2.3bn a year and is expected to become more common due to the ageing population

By Lorena Tonarelli

Symptoms

Heart failure manifests with shortness of breath, fatigue and excess accumulation of fluid in tissues and organs, explains Iain Squire, professor of cardiovascular medicine at the University of Leicester and chair of the British Society for Heart Failure (BSHF). "Fluid builds up in the legs and ankles causing them to swell, and also builds up in the lungs which makes it hard to breathe," he says. Shortness of breath initially occurs with exercise but later persists at rest. Together with fatigue, which causes patients to feel constantly tired, it lowers the

ability to live normally, making simple things like shopping in the supermarket a challenge."

Risk factors

About 70 per cent of heart failure cases are caused by coronary artery disease: the build-up of plaque inside the blood vessels that supply the heart. "If plaque blocks the blood flow, a heart attack may occur and damage the cardiac muscle leading to heart failure," says Squire. "Other risk factors include cardiomyopathy (when the heart walls are stretched, thickened or stiff), high blood pressure and chemotherapy for cancer. Age,



Treatment

The condition is usually treated with angiotensin-converting enzyme (ACE) inhibitors, angiotensin II receptor blockers (ARBs) or beta blockers (BBs) and, in some cases, with pacemakers. Taking regular exercise as part of a heart failure rehabilitation programme is also important.

Phenomenal advances

Professor Squire notes that "the progress in heart failure has been





phenomenal, leading to effective treatments and implantable devices that have improved survival rates significantly." A Healthcare Quality Improvement Partnership audit found that during 2012 and 2013, in-hospital heart failure deaths fell from 11.1 to 9.11 per cent. One-year mortality after hospital discharge also fell, from 26.2 to 24.6 per cent.

The challenges

There remain, however, difficulties, says Squire. Access to treatment is often delayed because heart failure is easy to misdiagnose, for its symptoms are also typical of other diseases. Echocardiography, the gold standard for assessing the heart's pumping ability, is not useful for those who show heart failure symptoms but have apparently normal cardiac muscle. A test that measures the blood levels of a substance called BNP (B-type natriuretic peptide) can help in these cases but is not available everywhere. Plus, most patients have additional illnesses and are on multiple medications, both of which can affect their tolerability to the drugs they need for their heart failure.

Survival rates

So although mortality has decreased, survival rates for heart



Iain Squire Professor of cardiovascular medicine, University of Leicester; Chair, British Society for Heart Failure (BSH) failure are still worse than those of some common cancers. Around 35 per cent of patients with acute heart failure who leave the hospital either die or are readmitted within six to nine months. Squire says the high rates of hospital readmission are a global problem with many reasons, including patients not following their treatment regimen and treatment withdrawal due to the potential for interactions with other therapies. In the UK, the introduction of community heart failure specialist nurses has led to some improvements. A 2012 review study concluded that their work is associated with fewer hospital readmissions and improvements in quality of life.

More is possible

"Heart failure has a marked impact on life quality and expectancy," says Squire. "While much has been achieved, there's clearly the potential for further improvement, through early and wider access to diagnostic tests, treatments and specialists, both in hospital and the community." ■

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Q&A: supporting patients

espite medical progress, heart failure poses major challenges to patients, but there is help out there, says Nick Hartshor-

ne-Evans, CEO of the Pumping Marvellous Foundation.

What does heart failure mean?

That the heart doesn't pump enough blood around the body because the heart muscle is damaged.

What symptoms should people look out for?

Breathlessness, fatigue and ankle swelling, but other symptoms may also be present.

What's the impact of the diagnosis on patients?

There is a sense of shock – that life won't be the same again. The psychological toll can be devastating.

How does the condition affect quality of life?

Normal activities of daily living, like walking or climbing stairs, become very difficult.

What key initiatives is your Foundation undertaking to help those affected?

Supporting and advocating for patients and their families and carers. Also, improving access to the latest treatments and increasing awareness.



Nick Hartshorne-Evans

CEO and founder, Pumping Marvellous Foundation

Dr Roy Gardner Consultant cardiologist at the Golden Jubilee National Hospital

Outpacing heart failure

pacing technology ew could improve the quality of life for those that aren't currently responding to treatment.

Since the first pacemaker was fitted in 1958, technology has evolved and now enables clinicians to treat heart failure more effectively. One of these technologies is called Cardiac Resynchronisation Therapy (CRT). In heart failure patients, the lower chambers of the heart (the ventricles) often beat out of sync, meaning the heart weakens and loses its ability to pump an adequate supply of blood to the rest of the body.

A new technology which is now available allows the heart to be paced in more than one location. This has the potential to keep more of the heart beating in sync, with the possibility of improving the response rate to CRT, with major benefits to heart failure patients. A large randomized clinical trial using this

new multi-site pacing is currently underway and hopes to show that this therapy will further reduce the rate of non-responders.

The Golden Jubilee National Hospital is the only hospital in Scotland involved in trial. Dr Roy Gardner, Consultant Cardiologist at the Golden Jubilee, said: "CRT has been shown to be an effective treatment for heart failure with the aim of resynchronizing the heart, making the heart pump more efficiently. It's important to refer patients, particularly in Scotland where implantation rates are a third of those in England."

Around 70 per cent of people respond positively to CRT; however, approximately 30 per cent are considered to be non-responders, which means they don't experience an improvement in their heart function¹.

Champagne, J., Healey, J. S., Krahn, A. D., Philippon, F., Gurevitz, O., Swearingen, A., . . ELECTION Investigators. (2011). The effect of electronic repositioning on left ventricular pacing and phrenic nerve stimulation. Euro-pace. 2011, 13(13), 409-415.



6 symptoms of héart failure



Loss of appetite



Swollen ankles



Shortness of breath



Fatique

Depression



Exercise intolerance

MANAGING HEART FAILURE

EUROPE

3.5 MILLION

NEW CASES are

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**

OVER 15 MILLION PEOPLE in Europe

suffer from heart failure.¹



In Europe, heart failure is the leading cause of hospitalization in the elderly.⁴



Braunschweig, F.; Cowie, M.R.; Auricchio, A. (2011) What are the costs of heart failure? Europace, 13, ii13-ii17. DOI: 10.1093/europace/eur081

2. López-Sendón, J. (2011) The heart failure epidemic. Medicographia, 33(4), 363-369.

Madaleine Pharmaceuticals (2014) Retrieved September 24, 2015, from http://madeleine-pharma.com/wp-content/uploads/2014/11/Madeleine-Pharmaceuticals-Fact-Sheet-November-2014.pdf

Sicras Mainar, A., Navarro Artieda, R. & Ibáñez Nolla, J. (2015) Economic Impact of Heart Failure According to the Effects of Kidney Failure. Revista Española de Cardiología 68(1), 39–46.

HEART FAILURE BY THE NUMBERS

5. Blecker, S, Agarwal, S.K., Chang, P.P., Rosamond, W.D., Kucharska-Newton, A. (2014) Quality of care for heart failure patients hospitalized for any cause. *Journal of the American College of Cardiology*, 63(2), 123-130

Remote patient monitoring to improve patient care

By Kate Sharma

Technological innovations within the last two decades have rapidly changed the way heart failure is diagnosed, treated and monitored in the UK and more developments are on the horizon, predicts Professor Martin Cowie.

At present, more than 800,000 people in the UK are living with heart failure. In addition to the physical symptoms of this debilitating and potentially life-threatening disease, patients have to endure the added anxiety of regular hospital visits. It's costly, stressful and time consuming for staff, patients and caregivers, so advances in home-based care can offer a more efficient and effective solution for everyone.

"With specialist community services, heart failure nurses and recent developments in monitoring, the UK is at the forefront of delivering world standard care for heart failure patients," explains Martin Cowie, professor of cardiology at Imperial College and Royal Brompton Hospital in London.

At present, a very simple system of home-based care is being trialed by Professor Cowie and his team to reduce the number of unnecessary trips that patients have to make to hospital. Armed with a blood pressure cuff and weighing scales, patients can



Professor Martin Cowie Professor of cardiology at Imperial College and Royal Brompton Hospital

record their details on a daily basis and upload them for specialist nurses to monitor. As long as these results remain stable, patients need not travel unnecessarily to the hospital, but the moment there is a concerning change, doctors can respond immediately.

Pioneering technology

More recently, pioneering technology has seen capabilities taken to new levels with the development of a piece of electric crystal (small sensors) that can be implanted into the pulmonary artery (PA) through keyhole surgery. The crystal, which

"The UK is at the forefront of delivering world standard care for heart failure patients"

has no battery and can stay in the patient forever, is activated by radio frequency (RF) energy through the antennae in a pillow the patient lays on to take a reading each day. The reading of the patient's PA pressure is then sent remotely to the patient's care team for the physician to review. When the physician notices a meaningful change in PA pressure, the medical team can respond by contacting the patient and appropriately adjusting medications. Advancements in medical device innovation, through remote monitoring, are one of the leading tools to improving the quality of life with those with heart failure.

Preliminary tests in 550 patients in the US suggest that the device, can reduce hospital admissions by at least 30 per cent¹. Within the next 12 months a further study will be carried out in the UK with 50 patients receiving the implant as part of a trial at Royal Brompton Hospital. Cowie is hopeful that this could be the first step to more formal trials of the remote technology. "In five to ten years time, this may be seen as established practice for the right patients," says Cowie. "We need to ensure it's effective and provides value for everyone."

With an ageing population, Cowie anticipates as many as one in four people are likely to develop heart failure during in their lifetime. Remote monitoring is part of a package of services that could dramatically improve the quality of life for these patients, whilst also helping reduce NHS costs in the long run. "With new technology there are always initial costs to be met," says Cowie. "But costs always reduce over time. With rapid diagnosis, access to patient support groups and specialist nurses, there are lots of things around to help people get the best care. It's important people know that the UK is at the forefront and if people aren't getting the best care, they need to shout."

Abraham WT, Adamson PB, Bourge RC, et al. Wireless pulmonary artery haer dynamic monitoring in chronic heart failure: A randomised controlled trial. Lancet 2011;377(9766): 658-66.



Hobbs, R. (2010) Clinical burden and health service challenges of chronic heart failure British Journal of General Practice, 60(577), 611–615.

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Supplementation and heart health

Nutrition can play an important role in heart health. Modern convenience foods are often depleted in essential nutrients and our bodies become less effective at manufacturing the coenzymes, vitamins and minerals they need as we age.

Trban Alehagen, associate professor of cardiology, Linköping University, Sweden, discusses the need for supplementation to support heart health and ground-breaking new research being conducted in this area.

How can a person tell if a particular dietary supplement is beneficial to their heart?

That's a major question, because a supplement might be beneficial... but then it might not be of any use at all. So it's very important that the company producing a particular supplement can prove that it has conducted tests that show, for example, how much of the capsule or tablet actually gets into the blood stream. People should ask their pharmacist or doctor for the latest information about a heart supplement that they are considering taking.

Are heart supplements usually prescribed — or bought over the counter? And who needs them?





Urban Alehagen

Associate professor of cardiology, Linköping University, Sweden

countries and the western world, the majority of patients buy supplements over the counter. People who take them don't necessarily have a history of heart problems, however there is research to suggest the benefits of some supplements such as coenzyme O10 and selenium for heart health. Of course, there are well-educated physicians who know that some people in some areas need dietary heart supplements. For instance, in Europe, compared to the US, we have low contents of selenium in the soil; and selenium is the

most powerful antioxidant we have — plus it plays a major part in energy production.

Is much research being conducted into the area of heart supplements?

Not enough: but in order to launch a clinical study, you need a lot of monev. I know this from experience! In 2003, we started two studies: a Q-Symbio study, looking at people with heart failure; and a KiSel-10 study to see what happened if we gave ordinary, healthy, elderly people a coenzyme supplement called Q-10, which acts as a cell membrane protecting antioxidant, along with an organic selenium yeast. The main result of the KiSel-10 study was that we found we could reduce cardiovascular death by more than 50 per cent. That's a remarkable amount. Now we need to get more studies published – and, when we do, we can show that this is something the body needs and can take without experiencing side-effects.

> For more information or to receive a copy of the Q-SYMBIO or KiSel-10 studies, visit **q10.co.uk**



Keep it turning over everyday – **be active** and use the stairs instead of the lift.



To help keep your arteries unblocked and your blood circulating normally **cut down on** animal fat, palm and coconut oils. Too much saturated fat is linked to high cholesterol, a risk factor for heart disease.

Help protect your heart by **eating plenty of vegetables and fruit,** nature's powerhouse of antioxidants and other bioactive compounds.



Keep its emissions down - don't smoke. Smoking can speed up the damage to arteries and hasten a heart attack.

Remember to **drink plenty of fluids** to keep your engine ticking over.

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Walk to the shops/station/newsagent. Current recommendations advise adults to have at least **150 minutes of moderate** excercise a week.

Help oil the engine by substituting animal fats for those based on **seeds, nuts and olives.** These vegetable oils are high in unsaturated fats and low in saturated fat so are heart-healthy. But they are still rich in calories so don't have too much.



Listen to it - it will tell you when it needs a rest. **Get plenty of sleep.**

Have a daily dose of cholesterol busting foods.

Vegetable proteins such as nuts, soya, pulses, beans, lentils all help lower cholesterol. Add in a daily dose of oats and a week portion of oily fish, both heart protective foods.

LOWER CHOLESTEROL LEVELS

Cholesterol is one of those things that everyone has heard of but few understand

We get some cholesterol from our diet but most is made in the liver. It is essential for good health.

holesterol is an integral part of the cell membrane of every cell in the body and is also needed to make some hormones and vitamin D. However, too much cholesterol circulating in the blood increases our risk of cardiovascular disease.

Cholesterol, being a fat, does not dissolve in the blood so it has to be carried around the body on lipoproteins. There are two main lipoproteins - high density lipoprotein (HDL) and low density lipoprotein (LDL). LDL cholesterol is often referred to as 'bad cholesterol' because having too much of it is unhealthy and HDL cholesterol is often referred to as "good cholesterol" because it recycles cholesterol back to the liver where it can be removed.

More than half of all adults in the UK have raised cholesterol* and this increases the risk of cardiovascular diseases such as angina, heart attacks or strokes. Having more than one risk factor (diabetes, high blood



Linda Main Dietetic adviser, HEART UK - The Cholesterol Charity

pressure, smoking) puts people at even higher risk. Most people do not know that they have high cholesterol because there are no clear outward symptoms – it can be caused by eating too much saturated fat or being inactive. Smoking can reduce our protective HDL cholesterol.

Most people can reduce their cholesterol through regular exercise and by eating a heart-healthy diet. This is one that is rich in vegetables, pulses, fruits, oily fish and whole grains and low in animal fats, coconut and palm oils.

Soluble fibres from oats, barley and pulses, nuts, soya foods and foods fortified with plant sterols and stanols all have the ability to help lower cholesterol if eaten in significant quantities and regularly.

High cholesterol can also be inherited through a condition called Familial Hypercholesterolemia which affects 120,000 people in the UK, yet only 15-20 per cent have been diagnosed.

The vision of Heart UK – the Cholesterol Charity – is to prevent premature deaths caused by high cholesterol and cardiovascular disease. We want the majority of UK adults to know and understand their cholesterol levels and to be taking any necessary action.

October 2015 is Heart UK's National Cholesterol Month which raises funds to help provide expert support, guidance and education.

> For more information, or to sign up to National Cholesterol Month, please visit **heartuk.org.uk**

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- A cost effective way of reducing levels of cholesterol without increasing bread and dairy intake ⁴
- Lestrin[®]Plus has added garlic extract and coenzyme Q10 for people who want to combine their daily supplements in one.



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1. Data on File 2. EU Register on nutrition and health claims: Commission Regulation (EU) 384/2010 of 05/05/2010. Amended by Commission Regulation (EU) No 686/2014 of 20/06/2014. 3. EFSA Journal 2010;8(10):1813. 4. Data on File.





Dr Mike Knapton Associate medical director, British Heart Foundation

Monitoring your own heart health

National guidelines for managing high blood pressure changed recently to include blood pressure measurements made at home.

If you have high blood pressure this can provide a more accurate reading than getting a measurement at your surgery.

This is because of a common phenomenon called 'white coat hypertension', which is when a person's blood pressure temporarily rises in a medical setting because they feel anxious. This doesn't happen to everyone but it can mean that a person's average blood pressure could be overestimated.

If you are buying a blood pressure monitor, make sure it is approved for use in the UK. To make sure your monitor is accurate, choose one that has been listed as validated for accuracy by the British Hypertension Society.

It's also common for people to wear one of the many running watches and heart rate monitors on the market. We would not recommend these for health monitoring but can be useful tools as a guide to provide feedback on your performance in training.

Advances in treatment offer new hope for heart attack sufferers

Life is a risky business, and cardiovascular disease (CVD) remains the biggest killer – something which isn't helped by the obesity epidemic and increase in diabetes

f you are not known to have CVD, you can start early and help reduce your lifetime risk with the Joint Board of Specialties 3 (JBS3) risk calculator supported by the British Cardiovascular Society and the British Heart Foundation: jbs3risk.com.

With the help of your GP, you can calculate your actual heart age and see what you can do to gain more years of life without a heart attack or stroke. Stop smoking, exercise and take a healthy diet. With your GP make sure blood pressure, cholesterol and blood sugars are under control: 'An ounce of prevention is worth a pound of cure'. The pace of research and innovation in CVD means that, if needed, you will receive the best possible treatment.

Improvements in care

Across the United Kingdom, national programmes such as the Myocardial Infarction National Audit Project (MINAP) and the National Infarct Angioplasty Project (NIAP) have led to dramatic improvements in the care of people who have had heart attacks. People who have suffered the most severe form of heart attack (ST-segment-elevation heart attacks) are now taken immediately to a specialist heart attack centre for a 'keyhole' intervention to open a blocked coronary artery. These services are available at any time and offer people with heart attacks a much greater chance of survival, and then returning to an active life.

Surgical alternatives

The treatment of people with heart valve disease has also advanced rapidly, and many elderly patients can now be offered TAVI procedures (Transcatheter Aortic Valve Implantation) to treat obstructed aortic valves. During these procedures X-rays are used to insert a tube (or catheter) into an



Dr Sarah Clarke BCS President, Consultant Cardiologist, Papworth Hospital

"These services offer people with heart attacks a much greater chance of

survival"

artery in the leg; a new artificial heart valve is then passed though the tube and implanted in the heart.

Early success

TAVI procedures avoid the need for more invasive open heart surgery in many cases and are now being trialled in younger and lower risk patients. The early success of this new technique has also encouraged heart specialists to develop nonsurgical treatments for diseases of other heart valves including the mitral valve. These new procedures offer hope that future people with heart valve disease may not require open heart surgery. ■



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STATISTICS



150,000 strokes per year in the UK¹ **410** per day - **17** per hour



Within the next two hours:

- **30** patients with AF will have suffered a AF-related stroke
- 24 would have been known to be high risk of AF-related stroke
 - **18** should have been on an anticoagulant
 - 9 will go home
 - 15 will end up in residential care
 - 6 will die....

ownsend, N., et al. Coronary heart disease statistics. 2012

F1 technology helps diagnose heart conditions

There's always an excuse not to get a check up at the doctors. However, new technology is now available, which makes getting your own body's engine checked out as easy as taking a pit stop



By Kate Sharma

he heart has been described as the 'engine of life' beating more than 115,000 times a day to pump blood around the body. However 1-2 per cent of all people have a heart condition known as atrial fibrillation that causes an irregular and often abnormally fast heart rate. Many people don't even know they have the condition, which is the most common heart rhythm disturbance, affecting around one million people in the UK alone. "Atrial fibrillation (AF) is the most commonly occurring cardiac arrhythmia. More than 33.5 million people worldwide suffer from AF with five million new cases appearing each year," says Professor Hugh Montgomery, Director of the UCL Institute for Human Health and Performance. "Undetected and untreated, AF is a major cause of stroke, cardiovascular morbidity and mortality, leading the European Society of Cardiologists to call it a 'major cardiovascular challenge in modern society'.

With the right medication, atrial fibrillation can be controlled easily; the challenge is diagnosing it. "Early detection of AF, followed by intervention to control or cure it, or to prevent its complications, is emerging as a priority issue in medicine," confirms Prof Montgomery.

Diagnosis made easy

To help make diagnosis that much easier, a new device makes



AEDs Vital to Workplaces

Cardiac Science develops, manufactures and markets automated external defibrillators (AEDs) and provides a portfolio of training, maintenance and support services for AEDs. With thousands of sudden cardiac arrests (SCAs) in the workplace every year businesses are now acting to save lives.

Cardiac Science has installed AEDs for people in all walks of life, from tax offices to distilleries, packaging firms to schools, fleets of fishing vessels to construction projects.

With an SCA every second counts, every minute without CPR and defibrillation reduces someone's chance of survival by 10 per cent. Driving even more deployments, is the opportunity to lease an AED from only $\pounds 1$ a day, ensuring that cost does not prevent businesses putting worker health and safety at the top of the agenda. A Powerheart G5 can be hired on a weekly basis and those hiring the device receive training and support.

Our customers are our greatest advocates. Dave Thomas, Managing Director at Survey & Laser, said: "The Powerheart G5 will deliver high quality CPR prompts with defibrillation on the spot to save a life."

AEDs save lives in the workplace and we make it our business to enable others to save a life!

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screening for cardiac arrhythmias as simple as touching a mouse mat. Using technology adapted from Formula 1, the device monitors the performance of the heart when a patient places their hands on a pad. Within 30 seconds their cardiac performance is assessed.

"The system has been developed to be as user-friendly as possible, with a unique combination of sensor technology and patient experience," explains Chris Crockford, CEO of medical technology company Cardiocity and former business development

start here

cardincity

director Formula 1 team McLaren. "We want to see the heart valves open and close to ensure that nothing irregular is occurring and we can now do this using our patented sensor technology and our experience from F1 telemetry systems."

Full integration

What's more, that data can be streamed to any PC where the cardiac rhythm and any abnormalities can be recorded. Doctors will be alerted if there is something wrong, so further



Professor Hugh Montgomery Director, UCL Institute for Human Health and Performance

investigations can be carried out immediately. The technology is also being integrated into the UK's Electronic Patient Record systems, which means results can be recorded directly into the patient's record.

Previously, the whole process for conducting a full ECG was time consuming and extremely intrusive. With the latest technology, patients can make use of waiting time in a GP surgery or pharmacy to get a vital check-up that could save their life. The device, which has been fully approved by the European Medical an excuse not to get a check-up," says Crockford. "With this device it's as easy as touching a mouse mat, so we're looking to integrate blood pressure monitoring into the system as well testing blood glucose levels; all in 30 seconds, and all with your clothes on!"

Devices Directive, is now being trialled

in 28 GP surgeries in Jersey and a

further 30 in the UK. "There is always

Read more at worldheartday.co.uk

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NEWS



A few simple steps could help all of us protect ourselves from arrhythmias

Know your rhythm

The heart is the engine of the body, but few of us know enough about the way our own hearts work to notice potentially life threatening changes when they occur.

By Kate Sharma

very year 100,000 people die as a result of heart arrhythmias, which is the broad term used to describe an abnormal heart rhythm. That's more than lung cancer, breast cancer and HIV/Aids combined. As many as 80 per cent of those cases could be avoided if only they were diagnosed and treated correctly. "If a plane crashed every single day of the year, we'd soon do something about it," says Trudie Lobban, founder and CEO of Arrhythmia Alliance (AA). "That's the same number of people who die from heart arrhythmias and yet so few of us even know about it."

A look at the statistics

Heart arrhythmias are experienced by more than two million people in the UK each year. The most common type of arrhythmia is atrial fibrillation (AF), which is when the heart beats irregularly and faster than normal. Whilst many people can live quite normally with the condition, it has the potential to kill. "Every two hours, six people die from atrial fibrillation related strokes with arrhythmias as the number one cause," reports Lobban.

Many arrhythmias are missed completely. "Roughly 31 per cent of adults and 39 per cent of children diagnosed with epilepsy often have underlying arrhythmias, that are not picked up on," continues Lobban. "Sudden Unexpected Death in Epilesy (SUDEP) can often be attributed to a change in the breathing or heart rhythm of an individual."

Technology making life easier

Arrhythmias can affect anyone, with various internal and external triggers such as viral illnesses, heart tissue damage, alcohol, tobacco, and certain drugs. However, a few simple steps could help all of us protect ourselves. "The one thing everyone can do is to know their own pulse," continues Lobban. "On average the heart should beat 60-100 times a minute, but it should also be regular. Knowing your heart rate and rhythm will help you know when it's abnormal, so you can seek medical advice." Whilst anyone can test their pulse in their wrist or neck, new technology is making it even easier. Simple apps or devices can now be downloaded or attached to a smart phone to measure the electrical activity of the heart simply by placing your fingers on the screen. If there is an issue, it will alert you and the readings can easily be saved or even send them remotely to a GP.

As the case of Fabrice Muamba, the Bolton Wanders footballer who collapsed on the pitch in 2012 with a cardiac arrest, has taught us, heart conditions can affect absolutely anyone, so it's never worth taking the risk. AA are urging anyone with a concern about their heart rhythm or who is experiencing other symptoms such as dizziness, fainting, shortness of breath and general exhaustion, to contact their doctor who will then conduct a full electrocardiogram (ECG).

Advancing on all fronts

Whilst the technology is helping the general public take notice of their heart rhythm, the medical profession is also

"Whilst many people can live quite normally with the condition, it has the potential to kill"



Trudie Lobban Founder and CEO, Arrhythmia Alliance taking steps to manage the condition better. In 2004, AA lobbied successfully to get better guidelines on Arrhythmias and Sudden Cardiac Death into the National Service Framework (NSF), which sets out guidelines for doctors to use when treat heart conditions.

Depending on the cause of the arrhythmia, a patient may be treated in any number of ways from medication to control the heart rate, surgery to remove diseased tissues, an electric shock to force the heart back into a normal rhythm, or the insertion of a pacemaker or similar device to keep the heart beating regularly.

Advancements are certainly being made on all fronts, but it will take a collaborative approach to ensure that the number of deaths to this preventable condition is reduced. From better general awareness to improved diagnosis and more efficient care, everyone from the public to the medical profession and politicians have their role to play. ■



COMMERCIAL FEATURE

Innovation in heart healthcare

Founded fifteen years ago, World Heart Day is a worldwide effort to increase awareness about heart disease and stroke, the world's leading causes of death.

n fact, cardiovascular disease is the No. 1 cause of death in the world, accounting for 17.3 million deaths per year (1) and is expected to grow to more than 23.6 million by 2030.

Developing innovative ways to diagnose and treat heart disease has the potential to change this bleak outlook. Risk assessment, remote monitoring and the development of new technologies for treatment are starting to change the way we deal with heart disease.

There are many different types of cardiovascular disease, and some can occur without warning or symptoms. Heart rhythm problems develop when the electrical signals that coordinate your heartbeat are not working properly, causing your heart to beat too fast, too slow or irregularly. These heart rhythm abnormalities are called arrhythmias. Not all arrhythmias mean you have heart disease, but a fast heartbeat such as atrial fibrillation (AFib) may have a significant impact on your health, and is the most common heart rhythm disturbance.

The risk of developing AFib increases as we age. For example, males in their late 70s have double the rate of AFib compared to men in their late 60s, and more than 5-fold higher prevalence compared to men in their late 50s. (2)

As our population ages, AFib has become a significant public health problem. Worldwide data on AFib confirms this condition may be a potential global epidemic with serious global burden and consequences. (1)

AFib has been shown to lead to stroke and heart failure, as well as increased risk of death. The management and treatment of AFib accounts for 1 per cent of the National Health Service budget in the United Kingdom and \$16-26 billion of annual expense in the U.S. (3)

The global burden of stroke

The risk of stroke is five times greater in individuals with certain cardiac arrhythmias like Afib (1), in which blood often pools in the atria (upper chambers of the heart), causing clots which can then travel to the brain, blocking the blood supply and destroying brain tissue. Up to eighty per cent of strokes in people with AFib can be prevented with

Advanced, medical-grade wearables can facilitate arrhythmia diagnosis

ablation or anti-coagulation medication. Fifteen million people worldwide suffer a stroke every year. Nearly six million die and another five million are left permanently disabled. Stroke is the second leading cause of disability, after dementia. In 2010, Stroke was the second-leading global cause of death behind heart disease, accounting for 11.13 per cent of total deaths worldwide. (4)

Early and efficient diagnosis is key

Early detection of arrhythmias is important to reduce unnecessary medical visits and prevent serious complications, such as heart failure or stroke, from occurring.

There is need for innovation in technologies used for arrhythmia detection. Current heart monitoring options, such as the 50-year-old standard Holter monitor, are limited in their ability to identify arrhythmias because they do not capture enough information, as they are only capable of collecting data for two or three days. Further, they are often difficult for patients to use because of their bulky size and the fact that they are uncomfortable to wear. Their use is also costly. In the U.S., studies have shown that that the lack of diagnosis or the need for additional testing after the initial use of the Holter monitor resulted in \$45 million, or slightly more than \$23,000 per patient, in unnecessary Medicare public health spending. When extrapolated over the entire Medicare population,

the total was more than \$900 million in unnecessary spending over the two-year study period. (6)

A recent study found the use of longterm, continuous, ambulatory electrocardiographic (ECG) monitoring increased the detection and diagnosis of AFib in those who had known risk factors but showed no outward symptoms of AFib. This condition is also known as "silent" AFib. The study, "Feasibility of Extended Ambulatory Electrocardiogram Monitoring to Identify Silent Atrial Fibrillation in High-risk Patients: The Screening Study for Undiagnosed Atrial Fibrillation," was published in May 2015 in the journal Clinical Cardiology. (7) The wireless, leadless, biosensor stick-on patch, a ZIO Patch (developed by iRhythm Technologies, San Francisco, CA USA, distributed in the UK by Cardiologic Corp.), worn by these patients recorded and stored their heart beats for up to 14 days.

In a high-risk population that had absolutely no symptoms or clinical indication of arrhythmias, the study found AFib in five percent of subjects using long-term, continuous, patch-based screening. This study shows that not only is systematic screening of AFib feasible, but it enables the treatment of patients before they develop complications from AFib, such as stroke. This data moves the needle toward thinking of AFib much like diabetes or hypertension, where the early screening

of patients pre-empts expensive adverse outcomes later.

Disruptive and innovative medical technologies that allow for long-term, continuous cardiac monitoring can:

· Improve clinical outcomes and patient compliance

• Lower health care costs for those suffering from a cardiac arrhythmia which can lead to more serious health consequences

· Be used as a first-line diagnostic tool for cardiac arrhythmias

To learn more about AFib and continuous, long-term cardiac monitoring, visit cardiologic.co.uk/zio.html or talk to your healthcare provider.

w.jheor.org/index.php/all-articles/by-title/80



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*Intelli Wrap Cuff Clinical Study, G. Bilo et al. Italy 2015. Data on file.



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