

the magazine of Blood Pressure UK

ISSUE 36 > Winter 2014

POSITIVE

# pressure

**COME  
DANCING**

**THERE'S NO EXCUSE  
NOT TO EXERCISE  
THIS WINTER**

How technology  
is changing the way  
we measure our  
blood pressure

**No place like  
home for Steven**

Renal denervation  
success or failure?



**Blood Pressure  
UK**

Helping you to lower your  
blood pressure

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## Positive about your blood pressure

# Welcome

**From Katharine Jenner,  
Chief Executive Officer**

Welcome to the winter edition of Positive Pressure. As I write this the nights are drawing in and there is a real chill in the air. It might seem a long time ago, but we did have a fantastic summer and I hope you all managed to get outside and enjoy it – and stayed healthy thanks to our ‘tips to a healthy summer’! In this issue of Positive Pressure we have some interesting news about renal denervation and its role in reducing blood pressure in resistant hypertensives. The article has been written by Dr Manish Saxena and it goes some way to explaining the current thinking surrounding renal denervation. We have also put together a ‘technology special’ looking at the new developments in smartphone apps, and measuring blood pressure outside the GP surgery.

September saw us searching for the ‘missing millions’ as part of Know your Numbers! Week 2014. Teams were up and down the country testing people’s blood pressure and offering advice on how to keep your blood pressure below 140/90.

We all know we should eat less and move more, but with Christmas coming I know it will be difficult to achieve the eating less part. I might think about joining an exercise class,



and I found the article on page 18 about the different classes which are on offer a great help. I think I might take my inspiration from Strictly Come Dancing’s book and try out a new dance class, what about you?

Last but certainly not least, we have reviewed fundraiser Steven Primrose-Smith’s book ‘No Place Like Home, Thank God: A 22,000 Mile Bicycle Ride Around Europe’. It is a fascinating account of his two year epic cycle ride around Europe’s capital cities. It’s an entertaining and thought provoking book, and charts Steven’s diagnosis of high blood pressure and the extraordinary lengths he went to, to help get it under control.

Thank you for all your support in 2014 and I hope you have a very merry Christmas and a successful and healthy 2015. Best wishes

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## Consuming too much salt leads to more than 1.6 million heart disease-related deaths

Consuming too much salt leads to more than 1.6 million heart disease-related deaths around the world each year, research suggests.

In total, the researchers calculated that 1.65 million deaths from cardiovascular disease occurred each year as a result of consuming more than the World Health Organisation (WHO) limit of two grams of sodium (5g salt) per day.

Lead scientist Dr Dariush Mozaffarian, from Tufts University in the US, said: "High sodium intake is known to increase blood pressure, a major risk factor for cardiovascular diseases including heart disease and stroke.

"These 1.65 million deaths represent nearly one in 10 of all deaths from cardiovascular causes worldwide. No world region and few countries were spared."

Sodium intake around the world ranged from 2.18 grams per day in sub-Saharan Africa (5.35g salt) to a huge 5.51 grams per day (13.8g salt) in central Asia.


Blood Pressure UK says: "We know that high levels of salt raises blood pressure and high blood pressure causes deaths. We can all improve our health by cutting down on the salt we consume. The best ways to do this are to limit

the use of salt in cooking and to take the salt mill off the dining room table so we're not tempted to add salt to our meals."

In the study people had their blood pressure checked five times over the 20-year period and were also given mental tests including ones for memory.

The researchers found that the decline in brain power scores for volunteers with hypertension was 6.5 per cent greater than for those with normal blood pressure, beyond that expected from ageing alone.

The study, published in the journal JAMA Neurology, also revealed that those with high blood pressure who took medication had less cognitive decline during the 20-year period than participants with untreated high blood pressure.

 This is a large-scale, long-term study, which adds to the increasing evidence base suggesting that high blood pressure is linked to the risk of cognitive decline.

## High blood pressure in midlife 'raises risk of dementia 20 years on'

Having high blood pressure in middle age raises the risk of impaired brain power in later life, possibly leading to dementia, researchers have warned.

The study by researcher at John Hopkins University School of Medicine in Baltimore suggests high blood pressure in midlife can result in a 6.5 per cent drop in scores of memory, concentration and other brain functions 20 years on.

But taking drugs for hypertension lessens this impact on cognitive function, and should be started earlier rather than later according to the American scientists. The study, which followed 14,000 people aged 48 to 67 years for two decades, compared brain function for those with hypertension, pre-hypertension and normal blood pressure. Those taking part in the study had their blood pressure checked five times over the 20-year period and were also given mental tests including ones for memory.

The researchers found that the decline in brain power scores for volunteers with hypertension was 6.5 per cent greater than for those with normal blood pressure, beyond that expected from ageing alone. The study, published in the journal JAMA Neurology, also revealed that those with high blood pressure who took medication had less cognitive decline during the 20-year period than participants with untreated high blood pressure.

Dr Simon Ridley, the head of research at Alzheimer's Research UK, said: "This large-scale, long-term study adds further weight to an evidence base linking high blood pressure to a risk of cognitive decline."





## WHAT MAKES A MEDITERRANEAN DIET GOOD?

The combination of olive oil and leafy salad or vegetables may be what gives the Mediterranean diet its healthy edge.



We've suspected that a Mediterranean diet which is rich in fish, whole grains, fruits, vegetables, beans and olive oil is good for us for a long time. But it is only now that scientists are unlocking the secret as to why.

A new study on mice has examined a type of chemical called nitro fatty acids. The researchers state that eating a combination of Mediterranean dietary foods causes the chemicals in olive oil and fish to combine with those in vegetables to produce nitro fatty acids. Their study found nitro fatty acids blocked the action of an enzyme called soluble epoxide hydrolase, and this in turn lowered blood pressure.

Future research will be required to determine whether the same processes occur in humans and whether it is possible to harness the benefits of nitro fatty acids in some form of medication.

**Blood Pressure UK SAYS** "Following a Mediterranean diet is a great way of making sure you are getting enough fruits and vegetables, healthy oils and lean proteins – but watch out for the salt! British versions of Italian foods are often laden with salt, so trying making your own food at home!"



## Good news for golfers?

'Simple hand exercises could help reduce high blood pressure.' That's the finding from a review of more than 1,000 scientific studies by researchers in the United States.

Walking was found to be the best exercise, with the biggest reductions seen when it is intense and frequent. They also found that regular isometric handgrip exercises such as those used by golfers - basically grasping and releasing an object - seemed to reduce blood pressure readings by as much as ten per cent, but it is unclear why.

The experts, including epidemiologists and cardiologists, looked at three types of alternative therapies: behavioural therapies such as meditation, non-invasive procedures including acupuncture and slow deep breathing, and three types of exercise - walking, resistance or weight training and hand grip exercises.

The findings in the journal Hypertension found some exercises were more effective than others at lowering blood pressure, and illustrates the confusion around the evidence for different types of exercise and their

impact on health.

Isometric hand grip exercises, used by golfers to build wrist and forearm strength, lowered blood pressure by ten per cent after four weeks of doing the exercises for 15 minutes a day, five times a week. An easy way to an isometric hand grip exercise is to squeeze a stress ball in the palm of your hand, hold the grip for ten seconds and then release.

It is thought exercise reduces blood pressure by slowing the heart rate, which reduces the strain on the body and reduces the activity of the nervous system among other mechanisms.

**Blood Pressure UK SAYS** "The effects are small and they shouldn't replace proven methods to lower blood pressure such as physical activity, losing weight, not smoking or drinking excess alcohol, eating a low salt diet and taking medications when prescribed."

"However, half an hour of moderate or high-intensity exercise most days will make a small but important difference to you blood pressure, as well as make you feel better"

# Study probes effect of NHS Health Checks

Public Health Warwickshire has conducted a major survey into NHS Health Checks to see how effective they have been at preventing ill health.

The researchers studied 38 GP Practices in Warwickshire which provided NHS Health Checks over a three-year period between June 2010 and March 2013.

They compared data from these GP Practices with 41 Practices within Coventry and Warwickshire which do not offer health checks.

The researchers collected data from each practice on the number of NHS Health Checks offered and completed, and the number of new cases of diabetes, hypertension, coronary heart disease, chronic kidney disease and atrial fibrillation that were detected as a direct result of the checks.

Changes in the number of cases of these five chronic diseases were very small and there was no significant difference between

Practices with or without checks.

**Blood Pressure UK SAYS** *“Although this study appears to show that there is no difference in disease prevalence between GP Practices which do and do not offer health checks we would encourage everyone to take up their offer of a free NHS health check as it could detect whether you have high blood pressure and need to change your lifestyle to protect your health.”*

*“We would like to see further research in larger samples and over longer time periods to examine whether the NHS Health Checks are of any benefit in improving the detection of chronic disease, or have any other beneficial health outcomes.”*



## Could vitamin D supplements help?

Vitamin D supplements might be an effective and cheap way to treat high blood pressure, scientists have said.

A study published in The Lancet appears to have uncovered the best evidence yet of a link between vitamin levels and hypertension.

The benefits of vitamin D for patients with high blood pressure have been suggested before, but as yet have not been backed up by robust evidence.

In this new study, scientists were able to determine whether low levels of vitamin D had a causal link with high blood pressure more reliably than ever before, by measuring genetic variations which affect a person's vitamin D levels, and measuring them against blood pressure.

The research looked at data on more than 146,000 patient records from Europe and North America.

Vitamin D is known to be important for keeping teeth and bones healthy, and supplements are already recommended by the Department of Health for pregnant women and children and babies under five. Exposure to sunlight is a major source of vitamin D, which can also be found in foods such as oily fish and eggs.

**Blood Pressure UK SAYS** *“The researchers have not looked at whether vitamin D supplements or exposure to sunlight would lower blood pressure. Also, the study only included people with a European background and it was unclear whether a similar association would be found in other ethnicities.”*



## DOES SALT IN YOUR SKIN CONTRIBUTE TO HIGH BLOOD PRESSURE?

Researchers are investigating whether salt stored naturally in our skin may contribute to high blood pressure. The study will investigate the theory that high blood pressure is caused by salt stored naturally in the skin and muscles as well as the salt we eat. A team at Vanderbilt University in the U.S. is investigating whether emptying these stores can lower blood pressure.

**Blood Pressure UK SAYS** *“It is a relatively new theory, and there are still many questions to answer about the mechanisms. But anything that aims to reduce salt levels is welcome.”*





## LEAVING A LEGACY

Would you like to help others with high blood pressure and leave a personal legacy for future generations?

By remembering Blood Pressure UK in your will, you will be helping to remove the burden of unwanted strokes and heart attacks for future generations.

We are committed to saving lives by helping people to understand and control their blood pressure. But the future of our work depends on your support. We need you to remember us in your will to ensure that our work goes on. A gift in your will is a gift in the future – thousands of people will be grateful for your generosity.

Leaving a gift in your will to Blood Pressure UK is easy and you will not pay any tax on it. Whatever you choose to leave, the charity will get the full amount. For more information visit [www.bloodpressureuk.org](http://www.bloodpressureuk.org).

## IS YOUR BLOOD PRESSURE NORMAL?

Ideally we should all have a blood pressure below 120/80. If your blood pressure is optimal that's good news but if it is higher you need to take steps to bring it down.

## FREE E-NEWSLETTER

Is six months too long to wait for your next Positive Pressure? If you give us your e-mail address you can receive four Positive Pressure e-newsletters a year as well as your printed copies.

The e-newsletters keep members up-to-date with what's going on in the blood pressure world.

To receive your free e-newsletters just send yours, or a nominated friend or family member's e-mail address to [Adam.Myers@bloodpressureuk.org](mailto:Adam.Myers@bloodpressureuk.org)



## Good news for curry fans

The humble curry could 'help save lives', according to Indian medical researchers, but don't call the takeaway just yet!

They have demonstrated that a 'garam masala' blend of ginger, cardamom, cumin and pepper, can lower blood pressure in rats.


Dr S Thanikachalam, cardiologist and lead researcher at Chennai's Sri Ramachandra University, said most heart patients he treated were obese, heavy smokers, or suffered from diabetes and hypertension. Many failed to take their prescribed medicines because they found them expensive, so he decided to develop a cheaper alternative based on Hindu traditional medicine.

The popularity of curries to treat blood pressure in Tamil Nadu led him to set up animal trials on rats, feeding them blends of pepper, cumin, ginger, cardamom along with licorice, dill and lotus petals.

One in four Indians suffer high blood

pressure and hypertension and the use of saturated fats like ghee in cooking many curries is a factor in high obesity rates. But the spices which flavour them could also hold the cure, Dr Thanikachalam said.

"These spices are used in particular quantities in many parts of Tamil Nadu for treatment of blood pressure but there is no validation or scientific research", he explained.

 "This is an interesting idea to explore, but many of these preliminary studies in rats come to nothing in humans."

"Curries are generally high in saturated fat, salt, and even sugar, especially when you buy them from restaurants and takeaways. However you can make them healthily at home; go for tomato and vegetable-based curries, rather than cream and ghee, skip on the poppadums and of course - don't add salt – the spices are delicious without it!"

## NHS Health Checks rise

More people than ever before are accepting the offer to attend an NHS Health Check, according to figures from Public Health England (PHE). In the last year more than 1.3 million people accepted the offer of an NHS health check and were screened for their risk of serious, but potentially avoidable conditions, such as diabetes and heart disease.

Professor Kevin Fenton, Director of Health and Wellbeing at Public Health England, said: "It's extremely encouraging to see more people than ever before are taking up the offer, but we want to do better. "With such a huge burden of disease associated with potentially avoidable conditions such as heart disease, stroke and diabetes, the NHS Health Check presents a real opportunity for individuals to take steps earlier and, through modifications in behaviour and lifestyle, reduce their risk.

"The success of the programme this year is testament to the dedicated collaborative work of local authorities and the NHS. In order to maximise the benefits to public health it is essential that we continue increasing the impact of the programme."

## SOME CHEESES ARE SALTIER THAN SEAWATER

Halloumi and blue cheese are saltier than sea water, according to researchers from the Centre for Environmental and Preventive Medicine at Barts, and the London School of Medicine and Dentistry.

The researchers, who included Blood Pressure UK's Katharine Jenner, looked at 612 supermarket cheeses and found that salt levels were high. They also found a wide variation in salt content within the same types of cheese.

Halloumi and imported blue cheese contained the highest average amount of salt (2.71g/100g), more salty than seawater (2.5g/100g), whereas cottage cheese contained the lowest average amount of salt (0.55g/100g).

Some types of cheddar – Britain's best-selling cheese – had much higher levels of salt than others, with supermarket own brands having lower average

levels than branded counterparts.

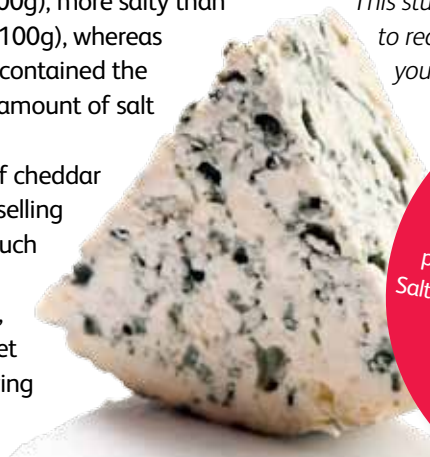
The Government has issued voluntary salt targets for specific categories of cheese, to encourage manufacturers to lower their salt content.

Cheeses with salt targets had lower levels of salt than those without, and of the 394 cheeses that have voluntary cheese targets, 84.5% have already met their 2012 target.



"Many people are unaware of how much salt is in the cheese they eat.

This study shows how important it is to read the labels and to choose your cheese wisely."



**DID YOU KNOW?**  
Cheese is one of the top 10 sources of salt in our diet and is widely consumed, with the average person eating 9kg of cheese a year! Salt is used in the cheese-manufacturing process. It controls moisture, texture and functionality, and also controls microbial growth.

## BRUSH MY TEETH WITH SALT? NO THANKS!

There are some daft claims for the health benefits of salt and some very strange salt products around the world, but don't be fooled as we all know how harmful salt can be.

Some of the odd products I have come across include a salt pipe which claims it soothes the respiratory system by replicating the bracing seaside air. I remain to be convinced.

Or you could try a bottle of 'Himalayan crystal salt water' which claims to help you detoxify and regenerate but it is basically just salty water.

In America apparently they like 'salt ketchup', which is actually tomato flavoured salt. Other varieties include 'bacon salt', which claims to make everything taste of bacon and 'malt salt' which is a dry mixture of salt flavoured with vinegar.

How about using toothpaste which has added salt and lemon to 'improve whiteness'? No thanks.

However news reaches me from Sri Lanka of improved health due to salt. It is not due to the salt itself but to iodine which is added during the salt making process and has been proved to reduce the amount of mental retardation in Sri Lankan children. Now we need to find another way of making sure mother's get enough iodine from a more healthy source.

Whatever the claims, I shall be sticking to less than 6g a day, the national guideline. Do please share any tales you have of silly salt!

## Why you and your family should take the HeartAge test

Did you know your heart age could be older (or younger!) than your actual age? HeartAge is a quick, simple and free online test that gives you an indication of the health of your heart, and what you can do to improve it. 6 million people have already taken the free HeartAge test around the world. Blood pressure is a major contributor to whether your heart age is older than your actual age.

Elevated blood pressure is affected by lifestyle, but can also run in families too. Take the lead in your family's heart health by taking the test and getting everyone in your family to do the same too.

The HeartAge test is for people aged between 21 and 74 and not only helps you find out your heart age, but also helps you find out how and where you can get your



blood pressure tested, and gives you access to relevant diet and lifestyle recommendations, guides, and links to products and support services.

Research shows if you approach diet and lifestyle changes as a family it can really help you be more successful in achieving your health goals. Every little helps, from getting more exercise or walking the dog together, checking food labels in the supermarket and swapping out the high salt or high fat foods, including more fruit and vegetables in your meals, or supporting each other's commitments to live a healthier lifestyle. For instance, building 30 mins of moderate exercise into your schedule 5 days a week, has been shown to improve blood pressure which could take years of your HeartAge. So take the HeartAge test today and share it with everyone! [www.heartage.me](http://www.heartage.me)

## READERS LETTER

I would like to comment on an article in issue 35 of your magazine which I believe could be misleading. The article is on page 22 and is 10 tips to a healthy summer. In paragraph four the reader is advised not to add ice to one's drinks, but in paragraph one the reader is advised to go for a salad. My concern here is that if the hygiene in the country being visited is such that the ice may be made from contaminated water then it is very probable that the salad would not have been cleaned properly and washed in dirty water.

Having spent several years working in West Africa and visiting over 40 different countries I have found it wise to avoid ice in my drinks and to keep off salads, particularly those containing lettuce which is difficult to clean. It does of course depend on the hygiene in the country being visited and there should be no problem in Europe, North America and similar countries, but the article does not make that distinction. If one is visiting a country with poor hygiene then my advice would be to only eat fruit or items in a salad which can be peeled by oneself.

Signed, Blood Pressure UK Member

## Probiotics 'may improve blood pressure'

Probiotics, so-called 'friendly bacteria', have been found to moderately reduce blood pressure, in a new study published in the medical journal Hypertension.

The study by researchers from Griffith University and Gold Coast Health, Australia combined the results of nine randomised controlled trials and concluded probiotics led to a modest but significant reduction in blood pressure.

According to NHS Choices probiotics are not medicines and in general they are regulated as foods, and don't undergo the rigorous testing and approval process that medicines do.

"This means we don't know whether a probiotic yoghurt, supplement or tablet contains what is stated on the label, and whether the amount of "good" bacteria in it is enough to have a beneficial effect. The bacteria in probiotic freeze-dried tablets may not even be "live".

"It's also worth noting that the different probiotic strains have completely different effects on the body.

Don't assume that the beneficial effects seen with one strain are the same as other similar strains," the team at NHS Choices has said.

After combining the results of the trials the researchers found that:

- Probiotic consumption significantly reduced systolic blood pressure by 3.56 mm Hg compared to control (systolic blood pressure is the "top" number and is the blood pressure in the arteries when the heart beats).
- Probiotic consumption significantly reduced diastolic blood pressure by 2.38 mm Hg compared to control (diastolic blood pressure is the "bottom" number and is the blood pressure in the arteries between heart beats).

The researchers concluded that their results suggest consuming probiotics may improve blood pressure by a modest degree, and that this effect may be greater if blood pressure is high to begin with.



# No Place Like Home,

## Thank God: A 22,000 Mile Bicycle Ride Around Europe



Steven Primrose-Smith's autobiographical account of his near death experience with high blood pressure – a reading of 210/120 which caused three brain haemorrhages and ended with a stay in intensive care in the Isle of Man – is a fascinating read.

He has an easy, relaxed style and you warm to his storytelling from the first page. Self-deprecating expressions about endless vomiting causing him to be as skinny as a pipe cleaner on hunger strike, or about his reluctance to act on the knowledge he had high blood pressure before it was nearly too late, are a refreshing change from the usual self-congratulatory autobiographies.

Despite the problems with his health, Steven confounded everyone by deciding to complete the cycle ride he had been planning before his hospital stay – a 1,500 mile trip from the Isle of Man to Spain's southern coast. He set off just three months after being discharged from intensive care with five different types of blood pressure tablets in his bike panniers.

That bike ride was to be the start of a much bigger journey, cycling to every

capital city in Europe, raising money for Blood Pressure UK along the way.

This is a hugely enjoyable book. The descriptions of the people Steven met and the places he visited are enticing, although some of the descriptions of the food he had to eat – brains, testicles, lungs and marmot – were less so.

Steven tells it like it was. There were days when it rained; when his legs felt like lead and he couldn't get up the hills. But there were also joyous moments, beautiful scenery, delicious cakes and friendly locals. He coped with adversity – a tent pole snapping, campsites shut and getting hopelessly lost – and seemed to grow in stature with every setback.

This book is the story of epic courage, of letting your ambitions soar and dogged tenacity. Many people would have stopped after just one or two capitals, but not Steven. He carried on, ticking each one off as he left.

Steven is a beer lover, and this book chronicles some of the more interesting beers he sampled and the places where he imbibed them.

As well as his bike ride Steven completed three university degrees – two with the Open University and one with Lampeter University, completing assignments on his laptop at the end of a day's cycling.

Despite taking thousands of blood pressure tablets with him Steven did have some health problems on his ride

due to getting fitter. The consequence of improving your fitness levels and losing weight is that your blood pressure reduces. In Steven's case this natural reduction plus the pills led to fainting, but he didn't let the occasional blackout put him off!

This is a really interesting book which has great descriptions of Europe's capitals and the cycle routes between them. It is an alternative travel guide which someone who is not too keen on a bike could follow – maybe in a car and at a rather faster pace. It would be easier getting up the hills too.

Steven is to be saluted. To undertake a 22,000 mile journey, albeit in stages takes enormous tenacity and determination. To undertake such a journey with a major health problem takes courage and a pinch of recklessness. To do both and to study for three degrees is almost superhuman.

Hats off to you Steven. This was an epic journey and one which this book has allowed us to take with you.

Stephen has raised an incredible £1,245 for Blood Pressure UK – please show your appreciation by donating generously at [www.justgiving.com/unicycle50](http://www.justgiving.com/unicycle50)



**No Place Like Home, Thank God: A 22,000 Mile Bicycle Ride Around Europe is available from Amazon price £9.99 (paperback) and £3.99 for Kindle.**


 SPOT  
LIGHT  
ON

Poor compliance with blood pressure lowering drugs is an important cause of uncontrolled hypertension, sometimes due to intolerances to the medications.

# RENAL DENERVATION

## SUCCESS OR FAILURE?

Patients are classified as resistant hypertensives if they are not well controlled (blood pressure less than 140/90 mmHg) in spite of being on at least three blood pressure lowering drugs, one of which is a diuretic.

It has been argued that incidence of true resistant hypertension is much less, and that poor compliance with blood pressure lowering drugs is an important cause of uncontrolled hypertension, sometimes due to intolerances to the medications.

Patients with resistant hypertension have also been treated with experimental device based therapies such as radiofrequency renal sympathetic nerve denervation, or 'renal denervation'.

Renal denervation targets renal sympathetic nerves lying in the walls of renal arteries. These nerves play an important role in the up regulation of the sympathetic nervous system in the body. This in turn leads to increased salt and water retention in the body leading to higher blood pressure. These nerves are targeted through a catheter based

**Dr Manish Saxena, Clinical Research Fellow, WHRI, Bart's Health & QMUL**

**U**ncontrolled hypertension is a major risk factor for heart attacks and strokes. It causes damage to the heart (hypertensive heart disease or LVH), eyes (hypertensive retinopathy) and kidneys (hypertensive nephropathy).

**It may be that a very carefully designed study will be needed to answer the question – is renal denervation a success or a failure - once and for all.**

endovascular approach through the femoral artery in the groin. Once the catheter is inside, it delivers radiofrequency waves to ‘ablate’ these nerves (heating them up and damaging them). The entire procedure takes about 45 minutes and most of the patients are discharged on the same day from the hospital.

The results from the first two studies in humans, Symplicity HTN I was not a randomised control trial, and Symplicity HTN randomised patients to either early renal denervation or to delayed denervation after a period of 6 months (control). This study showed significant reduction in ‘office’ (GP surgery) blood pressure. However, results from most UK centres have been very mixed. Recent results from a fully ‘sham-operated’ (blind) randomised controlled study in the United States (Simplicity HTN III) did not show any significant reduction in blood pressure with renal denervation.

The study did not meet its target of 10 mmHg reduction in the office systolic blood pressure in the denervation group at 6 months as compared to the sham or control group in the study. In this study both denervated and sham denervated patients showed similar large falls in blood pressure.

This study with a sham operation was being considered as a pivotal study to demonstrate efficacy of

renal denervation but it has divided opinion - some argue that it proves that renal denervation does not work, and others argue that treatment changes were allowed up to 2 weeks before denervation - so the blood pressure was likely still falling at the baseline visit. Furthermore most of the sites in Symplicity HTN III had had very little experience of doing the procedures and it is possible that this meant that less complete denervation was achieved (there is no simple test to see if denervation has worked on the nerves to the kidney).

The Joint UK Society’s 2014 consensus statement on renal denervation in resistant hypertension proposes more randomised controlled trials to improve evidence. It may be

**The entire procedure takes about 45 minutes and most of the patients are discharged on the same day from the hospital**

that a very carefully designed study will be needed to answer the question – is renal denervation a success or a failure - once and for all.

In the UK, patients interested in this therapy might be able to get it at certain specialist centres as part of research studies but we are still far away from offering this therapy as part of routine clinical care for hypertensive patients. In absence of new pharmacotherapy options for

hypertension, we need to give such device therapies a fair chance.

Some other issues worth considering are:

All hypertensive patients may not have up regulation of their sympathetic nervous system which is amenable to renal denervation treatment.

The anatomy of renal nerves in the vessel wall is poorly understood. Evidence shows that four quadrant ablation with second generation catheter systems are more effective in targeting the renal nerves.

It has been suggested that radio frequency ablation system is not able to target these deep lying nerves. Some other technologies such as ultrasonic ablation and chemical ablation should be tested

as they might be able to target these deep nerves.

We do not have any reliable indicators to assess if ablation of these renal nerves is successful with this procedure.

If not all patients get good BP reduction from renal denervation, then a predictive test able to determine in advance if the treatment would be successful, would be a great help.





Robert Waghorn from London was offered renal denervation because his persistently high blood pressure (200/100) wasn't responding well to drugs.

He underwent the procedure at the London Chest Hospital in October 2013 and since then has felt like a new man.

"I'd been suffering with digestive problems, headaches and migraines and they have all improved since I had the treatment. My digestive system has calmed down and the headaches and migraines vanished completely. My blood pressure is still higher than it should be (175/100) but it doesn't fluctuate as much as before. I feel much more alive and I'm really glad I had the treatment."

Robert's treatment lasted less than an hour and although he felt some discomfort when his second kidney was being treated he can't fault the treatment he received at the London Chest Hospital.

"The whole team were

really friendly and supportive. They talked to me during my treatment and looked after me. There was a lovely atmosphere in the operating theatre. I would urge anyone else who is offered the chance to have renal denervation to go for it. It was very easy and it has made me a new person."

Robert was awake during the procedure. "I was given a relaxant but was fully conscious throughout. It wasn't uncomfortable and Dr Manish Saxena explained what was going on throughout."

Robert has had high blood pressure for 15 years but says he's always learning about his condition.

"I've only just found out that caffeine isn't good for blood pressure so I'd better switch to decaffeinated now," he said.

DO YOU HAVE AN INTERESTING STORY TO TELL? COULD WE TELL YOUR STORY TO OTHER READERS? IF SO PLEASE CONTACT ADAM MYERS [adam.myers@bloodpressureuk.org](mailto:adam.myers@bloodpressureuk.org)



Angela Vincent from London had renal denervation at the London Chest Hospital in December 2013. There's a history of high blood pressure in her family, both her parents died in their 50s after suffering with high blood pressure and Angela's blood pressure was uncontrollably high before she underwent the procedure.

"I was taking lots of tablets but nothing was bringing my blood pressure down. My GP referred me to a cardiologist who referred me to Dr Manish Saxena.

"It was a very simple procedure. I was awake all the time although they had numbed the site of the operation. I could feel pushing as they burnt the nerves on my kidneys, it felt like a pinch. I had to stay overnight because I have problems with blood clotting but it didn't take me long to recover. I now only have to take two blood pressure tablets a day and my numbers are down to 142/92 whereas they had been in the 300s.

"Manish is amazing, a really wonderful doctor. He phones me up and takes really good care of me. I can't praise him and his team, Anne and Patricia highly enough.

"I would encourage anyone else who is offered real denervation to have it. Before the operation I was dragging myself around. I'd had to retire due to ill health but now I feel much better.

Angela says everyone should have their blood pressure checked regularly. "You don't know if you have high blood pressure unless you get it checked. There are no symptoms but it can be a killer."

# PUBLIC HEALTH ENGLAND

# Blood pressure vision and action plan

Jamie Waterall, Chair of the Blood Pressure System Leadership Board. Public Health England



Public Health England is working with a range of partners, including Blood Pressure UK, to tackle the problem of high blood pressure in England. A new group has come together from across government, the NHS, the third sector and academia to push forward a collective programme of work on blood pressure.

The first step in that work was the publication last month of a blood pressure vision and action plan, the focus of which is to improve the country's record on prevention, early detection and treatment.

## Prevention.

Prevention starts with the evidence of what drives high blood pressure and focusing on those risks that can be modified. Diet is key here - too much salt in the diet increases the risk of high blood pressure, as does obesity. Other risks include harmful levels of alcohol, physical inactivity and poor stress management. Prevention is about reducing those risks and encouraging people to reduce their salt intake, improve their diet and get more active.

## Detection.

The plan sets out how to get much better at detecting high blood pressure earlier. Over 5 million people have high blood pressure that isn't diagnosed. One way of improving detection is to encourage more people to take up their invite for their NHS Health Check. We also need to encourage testing for those at higher risk of having high blood pressure, either at their local GP surgery or out in the community.

## Control.

Then there is the final challenge of making sure that people with high

blood pressure are managed effectively. For many people this is not the case. Even though we have strong evidence for the effectiveness of drugs and lifestyle changes, there is a lot of variation in how well people's blood pressure is controlled. An important area of focus is to understand where and why the quality of treatment varies and what we can do about it.

Getting prevention, detection and

treatment right can't be done by one institution or one service alone. Organisations need to work across the health system to raise awareness and motivate people - at every age and across all our communities - to take control of their blood pressure and invest in their future health.





# WHERE ARE THE MISSING MILLIONS?

People of all ages from across the UK were invited to stop by one of its 'Pressure Stations' to have a free blood pressure test, as part of Know your Numbers! week.

**H**ealth Professionals from across the UK armed themselves with blood pressure monitors and hit the nation's streets and workplaces as we asked the UK to 'help us find the missing millions' during this year's Know your Numbers! Week.

We released research that showed that eight million people in the UK are unaware they are at risk of a stroke or heart attack because of their blood pressure. They have the condition either uncontrolled or are undiagnosed and so we urged every adult to go and get their free blood pressure check during our fourteenth Know your Numbers! Week.

Know your Numbers! Week plays a key role in us raising awareness about the dangers of high blood pressure, to help reduce the thousands of preventable strokes and heart attacks it causes every year. This year more than 1,200 Pressure Stations helped test the nation's blood pressure and let each person tested know what their important blood pressure



numbers were.

From as far north as the Orkney Islands, to Guernsey, via St Ives Cornwall in the South, Cardiff, Denbridgeshire, Hampshire, Cambridgeshire, Leicestershire, Yorkshire, Lancashire, Norfolk, Birmingham and London, no part of the UK was without its share of Pressure Stations. Supermarkets, Shopping Centres, Health Buses,

Churches, the Olympic Park, Community Pharmacies, Gyms and Occupational Health departments turned themselves into Pressure Stations, and ensured the week was, once again, a success.

Bromley Healthcare set up two blood pressure stations, one based at Intu Bromley shopping centre all week, while the Smoke-free Bromley van travelled the borough, reaching out to the wider community. They chose venues that could enable people who might not have the opportunity to go to their GP for a test to have one, and that meant that a whopping 760 people took up the opportunity for a free blood pressure check.

While in Wales, Prestatyn Town Council opened its headquarters to the public. The G4S security team in London were among those to learn their blood pressure numbers by hosting a Pressure Station, and IOM Consulting ran Pressure Stations for their staff at the Olympic Park and Crossrail headquarters. The men



and boys health team at Bradford District Care Trust carried out over 140 blood pressure readings throughout the week. Eileen Fegan, Health Screening Practitioner at Solihull Health Check clinic said: "Everyone should have a blood pressure check. If not treated, Stroke is highly possible and the catastrophic effects of a Stroke on the individual and the family can be devastating. I am now taking my BP machine to every meeting and event I attend and offering checks to anyone who wants to have one. It's a great way to start talking about hypertension".

Meadowside Leisure Centre in East Staffordshire set up a Pressure Station and staff and visitors took part in a pink Zumba party to raise funds for Blood Pressure UK.

### **MPs also joined the call for people to be tested.**

Alex Cunningham MP said: "Each year 120,000 adults in the UK have a heart attack or stroke in which high blood pressure is a key factor – that's a preventable stroke or heart attack every four minutes. But taking steps to lower blood pressure is something we can all do to improve our general health, and this begins with knowing your blood pressure. So I hope that as many people as possible will join me in having a blood pressure check to reduce their risk."

Andrew Bridgen MP said: "I am supporting Blood Pressure UK's Know Your Numbers! Week because high blood pressure is the UK's biggest silent killer, being responsible for 60% of strokes and 40% of heart attacks and is also a risk factor for heart disease, kidney disease and dementia. However, if detected, high blood pressure can be successfully managed and returned to a healthy level, which is why it's critical to Know Your Numbers!"

Andrew Stephenson MP said: "I am supporting Blood Pressure UK because it is vital that people get their blood pressure checked as it can have serious consequences for their health. I am glad to see the work being carried out by Blood Pressure UK and was pleased to visit Whitworth Pharmacy in Earby during Know Your Numbers! Week to get mine checked. I would urge people to do the

## **"High blood pressure is the UK's biggest silent killer, being responsible for 60% of strokes and 40% of heart attacks"**

same for what is a relatively quick test that has massive benefits."

This year the charity was supported in its Know your Numbers! Week campaign by HeartAge, an online calculator test designed to give you an overall idea of the health of your heart, Public Health England and Amazon UK, who supported Know Your Numbers! Week in their healthy heart month event .

Holly Whelan, CEO of HeartAge, said: "Our data shows that more than 60% of people who took the HeartAge test in the UK didn't know their blood pressure numbers. We want to increase the number of people who know their blood pressure because the more accurate the numbers you put in to

the HeartAge test, the more accurate your heart age result will be."

Professor Kevin Fenton, Public Health England's Director of Health and Wellbeing said: "High blood pressure is often symptomless, yet if untreated it can lead to serious health problems. We know that more can be done to improve the prevention and treatment of high blood pressure in England. This is why Public Health England and partners are setting out our support for more joint action".

Blood Pressure UK CEO, Katharine Jenner said, "16 million people in the UK have high blood pressure, but worryingly only half of them are aware of this and are being treated. These 'missing millions' are a ticking time bomb; putting themselves at high risk of having a stroke or a heart attack".

"We're very pleased with this year's Know your Numbers! Week and all the extra support we received and I would like to thank everyone who took part and helped to make Know your Numbers! Week 2014 such a success."



There are more than 100,000 health apps for mobile phones and tablets so it's no wonder users are confused about which ones they should trust.



# New guide to health apps for your phone and tablet

**A** mobile app (application) is a computer program designed to run on smartphones, tablet computers and other mobile devices. There are more than 100,000 health apps out there, so it's no wonder users are confused about which ones they should trust.

It is estimated that 97% of the available health apps are either redundant or worse than useless, and most of the available apps do little more than provide information and have limited functionality.

It is also daunting to have to sift through tens of thousands of apps to

find one which you can trust. There is often little transparency about the developers and funders of these apps.

NHS Choices Health Apps Library have developed criteria by which they can judge apps for safety or technical proficiency, which is extremely valuable. However, approaches do not take into consideration the view of the consumer.

### But help is at hand.

PatientView has established myhealthapps.net. This online resource seeks to take into account the views of patients, carers, families, and the healthy public in tandem with other

quality approval processes. Here, patient and consumer groups, as well as empowered patients and consumers, nominate their favourite apps, providing reviews and, where possible, some assessment of the level of usage of the app among the people they represent. A concerted attempt is made to include apps that cover every aspect of life that encourages better health.

In addition, they have developed a 5-heart rating indicating the extent to which a health app can demonstrate all of the five major qualities that patients/health-oriented consumers say they require of health apps.

To improve transparency, additional information is provided for each app including:

- who the main developer is
- the medical advisers
- participating patient groups
- funders
- whether the app has been approved by relevant authorities (FDA, MHRA, NHS Health Apps Library)
- its cost
- languages in which the app is available
- the platforms upon which the app is available.

myhealthapps.net derives no income from developers or app downloads and is an independent guide to health apps.

## FOODSWITCH UK WINS COMPETITION

We are delighted to announce FoodSwitch UK is one of three health apps to win Public Health England's Health X competition, which aims to help individuals and families eat well and move more through innovative technology.

FoodSwitch UK was shortlisted from 150 apps to the final 10. In true Dragon's Den style, we pitched our app to a panel of judges at the Finalists' Event and were thrilled to be announced as one of three winners.

The judges felt FoodSwitch UK could enable people to make real simple changes and have a real impact on their diets. At the event, Duncan Selbie, Chief Executive of PHE, said the project had "the potential to change every shopping basket in the country".

Katharine Jenner, who helped developed the app, said she was "delighted with the win, we have put so much work into FoodSwitch and we know it has enormous potential. [www.foodswitch.co.uk](http://www.foodswitch.co.uk)



# How technology is changing the way we monitor our blood pressure

Accurately measuring and monitoring your blood pressure at home is a vital way for people to be able to take control of their health. At Blood Pressure UK, our vision is that everyone will know their blood pressure as they would their height and weight! The way we monitor our blood pressure is changing, as apps and mobile phones take over the role of the traditional blood pressure monitoring machine with an inflatable cuff.

Dr Carmel McEniery, from the Clinical Pharmacology Unit at University of Cambridge, has taken a quick look at blood pressure apps and generously shared her results with us.

There are dozens of different apps available, and as well as monitoring blood pressure they can also track your weight, body mass index and heart rate. Some can also be used to remind you when to take medication or to book your next check-up.

## The blood pressure apps fall into three broad categories:

- Blood pressure tracking
- Phone-driven monitoring
- 'Instant' reading

Blood pressure tracking apps require you to enter your readings on your smartphone and you can then see on a graph how you are doing. We do not recommend or endorse any apps\*\*, however some of the best known that are available for under £1 are\*:

### BP Tracker Lite

- Enables logging of BP, medication, HR, weight
- Weekly/monthly/quarterly trends provided
- Module outlining facts about BP and maintaining normal BP
- £Free

### iBP

- Logging of BP via dials rather than keyboard
- Weekly/monthly/yearly trends provided and BP values are colour coded
- Multiple users/email addresses and password protection
- £0.69

### iBP Touch

- Easy user interface which allows multiple entries per day
- Reports and charts can be emailed
- £0.69

## iPhone BP Tracking Apps

### HeartWise Blood Pressure Tracker\*

- Tracks BP, calculates PP and MAP (1/3rd rule), HR, weight & BMI
- Exportation of fully formatted report in text or spreadsheet format
- Importation of existing data from other apps
- £0.69

### bpresso.com

- Tracks BP, medicine use, sports activities, notes
- Reminders can be set (medicines, BP readings)
- Results can be uploaded to private account in the cloud
- Free

Phone-driven monitoring apps connect your smartphone wirelessly to send a signal to a blood pressure monitoring

cuff which then records your current pressure. The results are stored on your smartphone and you can then monitor any changes over time.

There are a number of phone driven monitoring systems available, but three of the best sellers are iHealth, which is Apple compliant and retails for around £50; Withings Wireless blood pressure monitor which is Apple and android compliant and retails for around £100, and Qardioarm which is Apple compliant and retails for around £100.

Several instant Blood Pressure Apps for iPhone claim to enable you to monitor your blood pressure just by holding your phone to your chest; but the manufacturers – and Blood Pressure UK – strongly warn that it is not a medical device, lacks any formal validation and should only be for recreational use!



## What next?

New advances on the horizon include smart watches which can monitor blood pressure, and disposable blood pressure monitoring patches.

Blood pressure monitoring apps have many benefits, including the ability to collect real life data outside the GP surgery or clinic. They enable patient to be monitored remotely which is particularly useful for those who live in isolated, rural areas or the elderly and infirm who cannot easily travel to a surgery. But there are concerns about their use because there is no robust regulation of the apps and there is conflicting information on whether the apps should be considered medical devices and therefore fully regulated. Some people are also concerned about the sheer amount of data which is being collected via the apps and what might happen to that data in the future.

Blood Pressure UK will continue to monitor developments in the app field and will keep you updated. If you have any experiences of using these or other apps, please do share them with us. With great thanks to Dr Carmel McEniery

\*Details correct at time of going to press \*\*Blood Pressure UK nor Dr Carmel McEniery do not recommend or endorse any of the Apps mentioned in this article



# THE POSITIVE PRESSURE GUIDE TO FITNESS CLASSES

It might be too dark and cold to exercise outdoors in the winter but there are plenty of indoor alternatives to tempt us from our sofas.

**I**t might be too dark and cold to exercise outdoors in the winter but 'Strictly' is getting us in the mood, and there are plenty of indoor alternatives to tempt us from our sofas.

There are dozens of dance classes, keep fit workouts and exercise sessions taking part in leisure centres and village halls up and down the country. You can

choose between high and low impact, formal and informal classes, gentle toning or high intensity sessions.

For those of us who are not sure what form of exercise would be best, Positive Pressure has taken a look at some of the most popular classes around – many of which can be found in local gyms, fitness centres, town halls, or even bought on DVD to do at home!

Whichever you choose it will be good for you. We are all encouraged to take part in at least 30 minutes of exercise five times a week. We know it is good for our hearts, our waistlines and our blood pressure – but it's also a lovely chance to make friends and learn a new skill.



## ZUMBA

Zumba is one of the newest and most rapidly expanding dance classes around. It is estimated more than 15 million people from 180 countries take part in a Zumba class every week with more joining up all the time.

Zumba was started in the 1990s and involves both dance and aerobics. The music is a lively mixture of several styles including salsa, mambo and hip hop.

Part of its popularity is that there is no rigid sticking to a routine and no-one complains if you go wrong. Participants follow the lead of the instructor at their own level, either adding additional bounces for added calorie burning or opting for gentler moves.

The inventors of Zumba claim it is 'exercise in disguise' and that everyone can give it a go. You dance on your own, so there are no partner's toes to be trodden on and if you go wrong you laugh and your fellow dancers laugh with you, not at you. Classes normally last for around an hour and there are nine different types to choose from. The most popular is Zumba fitness whilst Zumba gold is designed for older



adults who want to keep fit at a lower intensity.

There are also aqua Zumba sessions in swimming pools and special classes for children. You don't need any special clothes or apparatus for Zumba although trainers are recommended.

• **To find out more visit [www.zumba.com](http://www.zumba.com)**

## PILATES

Pilates was invented in the early 20th century by Joseph Pilates and is designed to strengthen the mind and body. It is designed to be safe for everyone to do whatever their age or fitness level.

Pilates is built on six principles:

- |                  |                                   |
|------------------|-----------------------------------|
| 1. Concentration | 2. Control                        |
| 3. Centering     | 4. Flow or efficiency of movement |
| 5. Precision     | 6. Breathing                      |

Pilates is often seen as a gentle form of exercise but can be surprisingly good workout! With its emphasis on strengthening your inner core, breath control and efficiency of movement it helps people stay fit and supple throughout their lives.

You don't need any special clothes for pilates but you might want to invest in an exercise mat.

• **To find out more visit [www.pilatesnearlyou.co.uk](http://www.pilatesnearlyou.co.uk)**

## CEROC

Ceroc is a form of modern jive. You dance with a partner but the footwork is less tricky than the conventional jive steps which makes it easier for beginners. It began in London in 1980 and there are now more than 100 Ceroc classes nationwide.

Ceroc is danced to almost any music, typically 60s through to modern popular music, in a wide variety of tempos from slow to very fast.

Although you dance with a partner, you usually change

your partner every couple of minutes so it is possible to join in if you attend on your own. The moves are quite structured although in most Ceroc classes after the formal taught period there are is a 'freestyle section' in which you can practice your moves and create your own routine.

You don't need any special clothes but flat or low heeled shoes with non-slip soles are suggested.

• **To find out more visit [www.ceroc.com/home.php](http://www.ceroc.com/home.php)**

## YOGA

Yoga comes from the word Yuj, which means yoking, or the binding together of mind, body and spirit.

Many people think that yoga is just stretching. But while stretching is certainly involved, yoga is really about creating balance in the body through developing both strength and flexibility. This is done through the performance of poses or postures, each of which has specific physical benefits. The poses can be done quickly in succession, creating heat in the body through movement or more slowly to increase stamina and perfect the alignment of the pose.

Anyone can start Yoga, you certainly don't need to be fit, flexible or strong to give it a go. It is uncompetitive and sometimes includes meditation to encourage a sense of calm.

You don't need any special shoes or clothing but you will probably want to invest in an exercise mat.

• **To find out more visit [www.localyogaclasses.co.uk](http://www.localyogaclasses.co.uk)**

**THERE'S NO RIGHT OR WRONG WHEN IT COMES TO EXERCISING. IT IS BEST TO GIVE EVERYTHING A GO TO SEE WHAT IS RIGHT FOR YOU. HAVE FUN AND LET US KNOW HOW YOU GET ON**





# GO LO WITH LOSALT

1/3  
SODIUM

One of the quickest ways to lower your blood pressure (especially if you have high blood pressure) is to eat less salt. Help to reduce your sodium intake by switching to LoSalt. LoSalt contains 66% less sodium but still has all the great taste of regular salts.

The GoLo campaign was launched earlier this year to help raise the profile of 'the salt debate' using the British Institution of Fish and Chips as the forum.

382 million portions of fish and chips are eaten every year in Britain and it's

**“80% of our customers said it was a good idea to offer an alternative. We will be stocking LoSalt”**

Burton Road Chippy, Lincoln

the meal where salt is often added as a matter of course. GoLo offers you the chance to try a reduced sodium option in your local fish and chip shop.

We recently took the great taste of LoSalt on the road stopping off at 5 popular seaside towns. The GoLo chip van stopped at Scarborough, Great Yarmouth, Exmouth, Barry and Southsea and offered hot chips seasoned with LoSalt to those in the area. The positive feedback was overwhelming with the majority of people loving LoSalt's great taste.

We were also delighted to meet some of our GoLo ambassadors - part of a strong network of UK fish and chip shops offering LoSalt as a healthier alternative to regular salt. We now have 460+ fish

**“There are many who are conscious of the amount of salt they use and we must be proactive in promoting the healthier alternative”**

Penaluna's Famous Fish & Chips, Mid Glamorgan

**“We have customers reaching for the LoSalt over normal salt now”**

Quayside, Whitby

and chip shops taking part – the first time an initiative like this has been conducted on a large scale.

For more information on our GoLo campaign visit [www.losalt.com](http://www.losalt.com)

where you can use our handy Chip Shop finder to locate the nearest chip shop to you offering a LoSalt alternative.

LoSalt is a blend of two natural mineral salts: 66% potassium chloride and 33% sodium chloride.







# Manage Your Numbers

All About Health pharmacist ([www.allabouthealth.org.uk](http://www.allabouthealth.org.uk)) Charan Kaushish gives her top tips to help you keep on top of your blood pressure every day.

## Know what's normal

"Blood pressure is unique to each individual. What's high for some might be within range for you, so make sure you're tracking your blood pressure, especially after you reach 50.

## Get plenty of sleep

"The link between stress levels and blood pressure is well documented, but simple things like getting plenty of sleep and making sure you have periods of relaxation throughout the day will help reduce levels of anxiety and stress. Feeling well rested will also stop you reaching for a strong coffee in the morning - caffeine increases your blood pressure and anxiety levels so it's best to reduce your intake to a cup or two a day."

## Cut down on hidden salt

"There's nothing wrong with adding a small amount of salt to meals prepared at home, but processed foods like ready meals all contain high levels of salt.

The maximum daily recommendation is only a teaspoon of salt (6 grams) so do what you can to cut it out of your diet."

## Work it out

"Exercise is important, even when it's not for weight loss. The heart is a muscle, so when we work out we're strengthening the heart muscle too, making it more efficient when pumping blood around the body. Whether it's a gentle exercise like a walk after dinner or a body pump class, make sure you get at least 30 minutes a day."

## Manage stress levels

"If you're prone to high stress levels and find it difficult to switch off at the end of a day, try making a list of the things that are on your mind. By physically writing down your stresses for the next day you're 'removing' them from your head, allowing you time to wind down and drift into sleep. After a decent night's sleep that list

will seem all the more manageable when you tackle it."

## Don't succumb to 'White Coat Syndrome'...

"We've all known the feeling of rushing to the doctors to be on time for an appointment only to be told there's a delay. That rush of activity coupled with the anxiety in the waiting room before your appointment can elevate your blood pressure and mean the reading you get at the doctor's is slightly higher than normal."

## So monitor your blood pressure at home

"To know what works for you, I'd recommend taking your own blood pressure at home. Your BP will fluctuate naturally during the day, so pick a time that suits you and stick to it every day. You'll get a much more accurate reading and a true indication of your blood pressure levels on a daily basis."

For more information about managing your blood pressure, or to find your local pharmacy, visit [www.allabouthealth.org.uk](http://www.allabouthealth.org.uk)



Christmas wouldn't be Christmas without a Christmas pudding but many of the puddings on offer in the shops are full of sugar, fat and salt.

**W**e've found a healthier recipe for a pudding and we are sure you'll agree it is just as nice.

**YOU'LL NEED**

- 75g (3oz) plain flour
- 75g (3oz) currants
- 115g (4oz) raisins
- 75g (3oz) sultanas
- 115g (4oz) raisins
- 75g (3oz) cherries
- 1tsp mixed spice
- ½ tsp ground cinnamon
- 50g (2oz) fresh breadcrumbs
- 50g (2oz) brown sugar
- grated zest of ½ a lemon
- grated zest of ½ an orange
- 115g (4oz) grated apple
- 115g (4oz) grated carrot
- 4tbsp brandy, rum or beer
- 1tbsp lemon juice
- 4tbsps skimmed milk
- 2 eggs beaten

- 2tbsp molasses or cane sugar syrup
- 4tbsps brandy or rum for reheating (can be omitted)

**METHOD**

1. Combine all the dry ingredients in one bowl and all the wet ingredients in a separate bowl.
2. Mix the contents of the two bowls together and add the beaten egg, until all the ingredients are well mixed
3. Pour the mixture into a 1 litre (2lb) pudding basin or glass bowl and cover with aluminium foil.
4. Place in a steamer or large pan half filled with water, cover and cook for 3 hours. Don't forget to regularly check the water level to ensure it doesn't dry out.
5. To reheat, steam for 1-2 hours or microwave for 10 minutes
6. When cooked, turn out onto a serving plate and drizzle with brandy or rum (optional). Put a piece of holly on the top to decorate.

Enjoy

**CHICKEN AND EGG NOODLE STIR FRY**

A tasty and quick "one-pot" meal to rustle up in less than half an hour - perfect for families and when short of time. Adding the Chinese 5-spice powder really brings out the flavours.

SERVES 4

**YOU'LL NEED**

- 4 cooked chicken breasts
- 2 tablespoons light olive oil
- 2 garlic cloves, crushed
- 1 tablespoon fresh ginger, finely grated
- 2 red onions, finely sliced
- 2 large pepper (any colour), seeded and finely sliced
- 100g chestnut mushrooms, quartered
- large handful fresh bean sprouts
- 2-3 tablespoon low sodium soy sauce
- 4 tablespoons fresh orange juice
- 300g ready-cooked fresh medium egg noodles
- a pinch of Chinese 5-spice powder
- sliced spring onions, to garnish
- Freshly ground black pepper to taste

**METHOD**

1. Remove the skin from the chicken breasts and tear into mouth-sized chunks.
2. Heat the oil in a wok or large frying pan and add the ginger and garlic. Stir over a high heat for 1 minute then add the onions and peppers.
3. Stir-fry over a high heat for 3 minutes then add the chicken and mushrooms. Stir-fry once more for 3 minutes then add the beansprouts, soy, orange juice and noodles. Continue to stir-fry for another 2-3 minutes or until piping hot. Taste and season with Chinese 5-Spice, LoSalt (if needed) and pepper.
4. Serve immediately.

# Helping others with High Blood Pressure

## Have you thought of Blood Pressure UK in your Will?

Finding out that you have high blood pressure is traumatic, particularly if you are young. Most people don't know anything about the condition and worry about how it will affect themselves and those around them.

But Blood Pressure UK is here to help, and with our information

packs, range of leaflets and our helpline, we provide reassurance and support to sufferers and their families. But all of this work is expensive and while membership subscriptions and general donations help enormously, leaving a gift in your Will can help us make a bigger difference.

It isn't as complicated as you might think, doesn't have to be a large amount, and will give you the reassurance that our work helping fellow sufferers will continue once you have gone.

Obviously, providing for your family and friends comes first, but once that is done please consider a gift to Blood Pressure UK in your Will.



**Blood Pressure UK**

Helping you to lower your blood pressure

We have put together a simple leaflet to guide you through the process and you can get a copy by telephoning: (020) 7882 6255, visiting the website:

[www.bloodpressureuk.org](http://www.bloodpressureuk.org), or by writing to: Blood Pressure UK, Wolfson Institute, Charterhouse Square, London, EC1M 6BQ.



**66% LESS SALT**  
**100% GREAT TASTE**  
**THAT THEY LOVE**

**LO SALT**

**LoSalt** is the great tasting way to a healthier lifestyle, containing only one-third the sodium of regular table, sea and rock salts.

**LoSalt** is low in sodium salt and high in natural potassium

[www.losalt.com](http://www.losalt.com)



# Information & publications

We have a range of booklets and fact sheets giving valuable information about living with high blood pressure to help you understand it, lower it and manage it.



## Introducing high blood pressure

This booklet explains what high blood pressure is, who gets it and why. It gives basic information on lifestyle changes to lower blood pressure, and about measuring your own blood pressure at home.



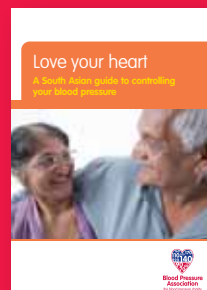
## Healthy eating and blood pressure

This booklet looks at how what you eat can affect your blood pressure. It shows you how you can start to eat less salt, and how to get your five daily portions of fruit and vegetables. It also explains how alcohol, fats and sugar can all affect your heart and body.



## Healthy lifestyle and blood pressure

This booklet shows how getting more active and keeping to a healthy weight can help lower your blood pressure. It looks at how you can start to build more activity into your day, and what types of activity may be best for you. It also talks about sensible approaches to losing weight if you need to.



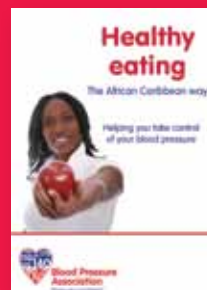
## Love your heart: a South Asian guide to controlling your blood pressure

High blood pressure is a major cause of heart disease and stroke. People of South Asian descent are much more likely to develop these health problems than other people. This booklet looks at how to lower your risk by keeping your blood pressure controlled.



## Measuring your blood pressure at home

This booklet can help you decide whether measuring your blood pressure at home is right for you, and how to choose the right type of monitor. It also gives you tips about how and when to measure your blood pressure to be sure you are getting reliable readings.



## Healthy eating: the African Caribbean way

People of African Caribbean origin are more likely to develop high blood pressure. This booklet looks at how you can help lower your blood pressure by eating healthily. Traditional African Caribbean cooking can be high in salt and fat, so this booklet looks at how to prepare healthier alternatives.



## Getting the most from blood pressure medicines

Most people with high blood pressure will need to take medicines to control it. This booklet talks about the different medicines for high blood pressure and about how you can get the best results from them. It also looks at side effects of blood pressure medicines and what you can do to avoid these.

**Our medicines information sheets provide information for patients about the different blood pressure medications that are used to treat high blood pressure. They are all available to download from our website and titles include:**

- ACE inhibitors.
- Angiotensin receptor blockers (ARBs).
- Calcium channel blockers.
- Diuretics.
- Beta-blockers.
- Non-standard medicines for high blood pressure.



**Blood Pressure UK**

Helping you to lower your blood pressure

All these publications are free to Blood Pressure UK members.

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or visit <http://www.bloodpressureuk.org>