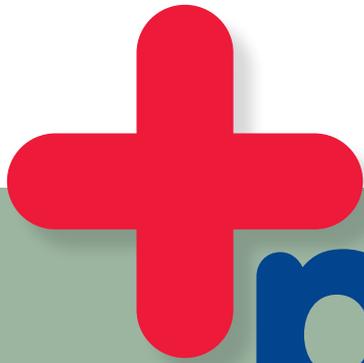
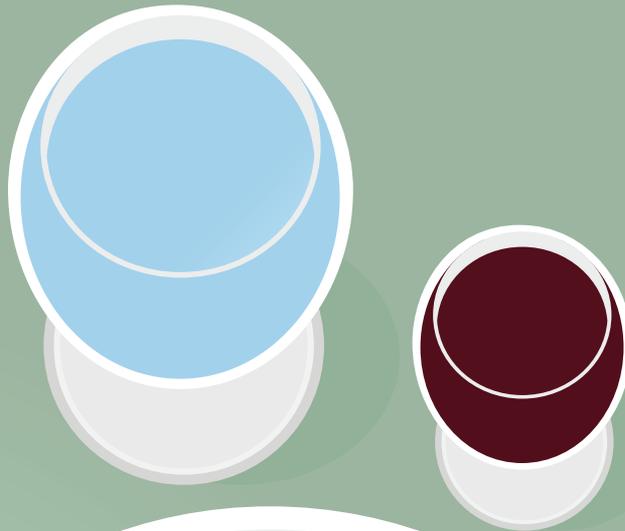


the magazine of Blood Pressure UK  
ISSUE 37 > Summer 2015



# pressure

**CHANGING  
THE FOOD  
ENVIRONMENT**  
It's easier than  
changing our  
eating habits



**PARKRUN**  
The running  
phenomena  
taking over our  
parks every  
Saturday



**SALT AND  
SUGAR**  
THEIR EFFECTS  
ON BLOOD  
PRESSURE



**Blood Pressure  
UK**  
Helping you to lower your  
blood pressure

FOLLOW US ON LIKE US ON



Blood Pressure UK  
 Wolfson Institute,  
 Charterhouse Square,  
 London, EC1M 6BQ.  
 Telephone: (020) 7882 6255/5793  
[www.bloodpressureuk.org](http://www.bloodpressureuk.org)

**positive pressure** is the magazine of UK charity, Blood Pressure UK. We aim to significantly improve the prevention, diagnosis and treatment of high blood pressure in order to prevent death and disability from stroke and heart disease. We are an independent registered charity and rely on donations and grants to carry out our work. All views expressed within the magazine are those of the authors and do not necessarily reflect those of Blood Pressure UK. The information in this magazine is designed to support and supplement your relationship with your doctor, not to replace it.

**Patron**  
 Sir David Attenborough

**BOARD OF TRUSTEES**

**Chair**  
 Professor Graham MacGregor

**Treasurer**  
 Guy Biggin

Professor Gareth Beevers  
 Nirmala Markandu  
 Professor Bryan Williams  
 Professor Mark Caulfield

**STAFF**

**Chief Executive Officer**  
 Katharine Jenner  
**Head of Finance & Administration**  
 Abdul Muyeed  
**Marketing Executive**  
 Hemini Bharadia

**Design**  
[www.chapmandesign.net](http://www.chapmandesign.net)  
**Print**  
 Captiv8UK 01892 611500

Company number: 3251531  
 Company Limited by Guarantee

Registered charity in England and Wales (1058944) and in Scotland (SC040230)



# Welcome

From Katharine Jenner, Chief Executive Officer

Welcome to the summer issue of Positive Pressure. It seems as though we had a long, dark and wet winter, and I for one am really glad to see the sunshine.

We've an interesting feature on our Chairman, Professor MacGregor, on page 10. The feature was first published in Public Health Today and we're grateful to them for letting us reproduce their piece.

Elsewhere our Chairman has co-written a paper on the effects of sugar and salt on blood pressure, and we have included an extract from it on pages 16-17. We're also putting the spotlight on both diabetes and sleep apnoea. Both conditions can lead to higher blood pressure and other health problems.

On a lighter note we've seen some interesting research in China about how children can influence their whole family's attitude to salt, and we've included a fun salt facts table mat on pages 12 and 13. Please pass it on to younger readers!

We're still really keen to hear your stories. We want to know how you cope with high blood pressure; how you found out you had high blood pressure; and whether you have tips for other people. For instance you might have taken up a new hobby which helps you relax and keep your blood pressure under control. If you would like to be featured in Positive Pressure please get in touch with us.

Don't forget Known Your Numbers! Week is fast approaching. This year it takes place from September 14-20 and turn to page 18 to find out how you can get involved.

We're very grateful for all the support you give Blood Pressure UK. If it were not for you we wouldn't be able to continue helping people with high blood pressure.

Best wishes

**SIGN UP FOR YOUR COPY OF POSITIVE PRESSURE**

If you've enjoyed this magazine but this isn't your own copy, then why not sign up to become a Blood Pressure UK member and have your own Positive Pressure delivered direct to your door, together with a host of other members' benefits?

**Call us on 0207 882 6255**  
 or visit  
[www.bloodpressureuk.org/Supportingyou](http://www.bloodpressureuk.org/Supportingyou)

# Blood pressure news

## Cutting down on salt could reduce headaches

Cutting down on salt could cut headaches by a third, according to research from John Hopkins University.

The researchers claim people who reduced their salt intake to three grams a day suffered significantly fewer headaches.

Lawrence Appel of John Hopkins

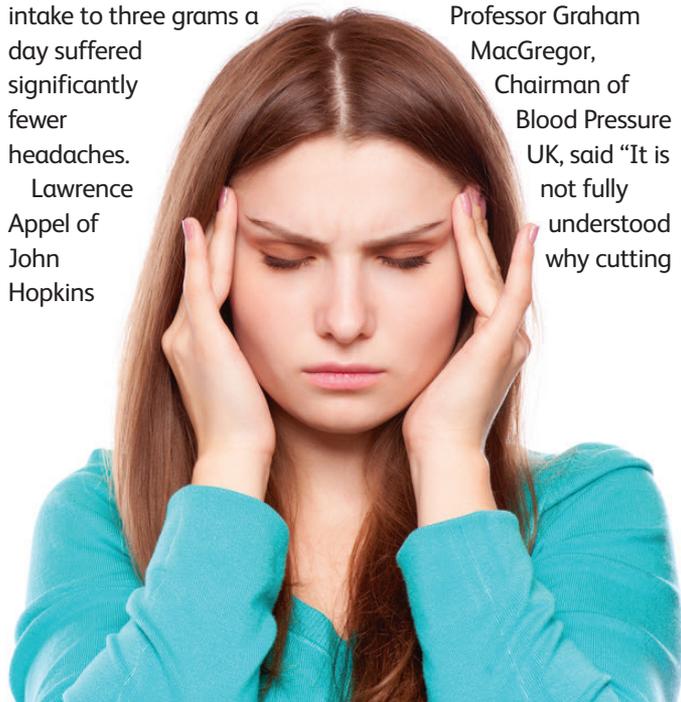
University said: 'A reduced sodium intake was associated with a significantly lower risk of headache, while dietary patterns had no effect on the risk of headaches in adults.'

Professor Graham MacGregor, Chairman of Blood Pressure UK, said "It is not fully understood why cutting

salt reduces headaches, but they suspect it is because it lowers blood and pulse pressure.

"It has long been suspected that reducing salt intake reduces the number of people developing headaches, and this study confirms our suspicions. This is the first well-controlled trial that really demonstrates a very large reduction in headaches just from modest reductions in salt intake."

**Blood Pressure UK SAYS** "Rather than just reaching for the medicine cabinet, we should be thinking about what is causing our ill health; it is often lifestyle and diet-related. If you can get fewer headaches and lower your blood pressure just by eating less salt, that's two fewer pills you will need."



NEWS

### WOULD YOU LIKE TO FUNDRAISE FOR BLOOD PRESSURE UK?

We need your help to put an end to the preventable strokes and heart attacks caused by high blood pressure every day in the UK.

There are many ways you can help us to save lives; from coffee mornings to fun runs, from auctions to a sky dive!

Set yourself a challenge, get fit, have fun – and support our life-saving work!

We can provide ideas, resources, support and information to help make your fundraising a real success, please get in touch if you would like to help – maybe your activity will feature on these pages, like Rebecca on page 7

<http://www.bloodpressureuk.org/HelpingUs/Fundraise>

### HOW MUCH EXERCISE IS BEST FOR YOU?

Moderate exercise may be better than 'very strenuous exercise' or 'no exercise at all' according to Danish researchers. A study of 1,098 runners found that those who ran the fastest were nine times more likely to die prematurely within 12 years than those who enjoyed a more sedate pace of around 5mph for two or three times a week. Overall, significantly lower mortality rates were found in those with a slow or moderate jogging pace, while the fast-paced joggers had almost the same mortality risk as the sedentary non-joggers.

Researchers registered 28 deaths among joggers and 128 among sedentary non-joggers. In general, the joggers were younger, had lower blood pressure and body mass index, and had a lower prevalence of smoking and diabetes. The research was published in the Journal of the American College of Cardiology.



**Blood Pressure UK SAYS** "We all know that keeping fit and active is good for us. I would caution against the finding that too much exercise is bad for us, because the numbers in the study were quite small. Light exercise at least two or three times a week is a good way of maintaining a healthy blood pressure."

# Blood pressure news

NEWS ♥

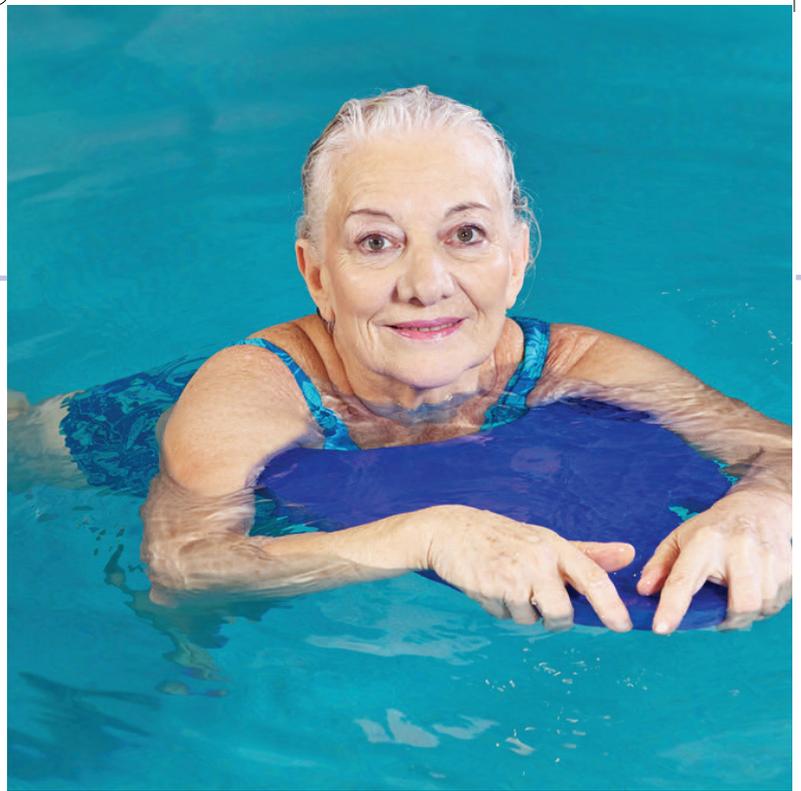
## NOT GETTING ENOUGH EXERCISE COULD BE MORE DANGEROUS THAN BEING OBESE

Not getting enough exercise could be causing twice as many deaths as obesity, according to research from a number of leading European universities including Oxford and Cambridge.

The study of more than 334,000 European men and women found a lack of physical activity was a factor in twice as many deaths as obesity.

The authors estimate that doing exercise equivalent to just a 20 minute brisk walk each day would take an individual from the inactive to moderately inactive group, and reduce their risk of premature death by between 16 to 30 per cent.

Professor Ulf Ekelund from the Medical Research Council (MRC) Epidemiology Unit at Cambridge University, who led the study, said: "This is a



simple message: just a small amount of physical activity each day could have substantial health benefits for people who are physically inactive.

"Although we found that just 20 minutes would make a difference, we should really be looking to do more than this –

physical activity has many proven health benefits and should be an important part of our daily life."



"This is a really interesting piece of research with a clear message. We all need to move more to stay healthy."



**IF YOU WANT TO SUCCEED IN LIVING A HEALTHIER LIFESTYLE, GET YOUR PARTNER TO TAKE PART TOO**

Couples who try to get healthy together are three times as likely to be successful as those who try on their own, according to researchers from University College London.

Research on more than 3,000 couples found individuals who tried to give up smoking, do more exercise, or lose weight, were far more likely to succeed if their partner made similar efforts.

Researchers said even partners of those who underwent weight loss surgery

appeared to enjoy a "halo effect" – and were likely to lose weight alongside their spouse.

Scientists looked at 3,722 couples, either married or living together, who were enrolled into the English Longitudinal Study of Ageing.



"Remember, even if you don't have a partner or a friend to join in with you, it is good to give up smoking, exercise more and maintain a healthy weight."

## A SMALL GLASS OF WINE A DAY IS 'GOOD FOR YOUR HEART'

Drinking a small glass of wine every day can help 'prevent heart failure', research from Harvard Medical School reveals.

Scientists have found drinking seven small alcoholic drinks per week cuts the risk of heart failure by a fifth in men and 16% in women. A drink was defined as one containing 14 grams of alcohol, which is about half a pint of beer, a small glass of wine or a shot of whisky or vodka. But researchers warned that heavier alcohol use increases the risk of death from all causes. Professor Scott Solomon, of Harvard Medical School, said: "These findings suggest that drinking alcohol in moderation does not contribute to an increased risk of heart failure and may even be protective."



"This study should be treated with caution, as we know excessive alcohol consumption leads to heart damage. We recommend you follow NHS guidance until more is known"

### THE NHS RECOMMENDS THAT:

**Men** should not regularly drink more than 3-4 units of alcohol a day

**Women** should not regularly drink more than 2-3 units a day

If you've had a heavy drinking session, avoid alcohol for at least 48 hours

# Blood pressure news

## CHILDREN SHOULD 'LIMIT THEIR SCREEN TIME' FOR HEALTHY LIFE

Lack of physical activity, and getting more than two hours of "screen time" per day significantly increases the risk of high blood pressure in children, according to the results of a recent study.

The claim was published in the February issue of the International Journal of Cardiology and relies on the analysis of data gathered on over 5,000 children from eight European countries, examined by 15 researchers from Spain and Brazil.

They found a "worryingly high" incidence of high blood pressure in children – 110 cases per 1,000, or double the expected rate of five percent. Spending more

than two hours a day in front of a screen, whether watching television or playing computer games, increased the probability of high blood pressure by 30 percent. The article also noted that anything less than an hour per day of physical activity increased the probability by 50 percent.

High blood pressure in childhood can lead to serious cardiovascular problems later in life, including heart attacks and strokes.



*"This is an interesting study, but the results should be looked at with caution because the data is based on parents estimating the time their children spent in front of a screen."*

## YOUNG PEOPLE WITH A HIGH SYSTOLIC BP HAVE AN INCREASED RISK OF HEART DISEASE

A 30-year study of 27,000 people suggests isolated systolic high blood pressure in young adulthood (average age 34) is a predictor of dying from heart problems 30 years down the road.

The Chicago Heart Association Detection Project in Industry Study found women with high systolic pressure had a 55 percent higher risk of dying from heart disease than women with normal blood pressure. For men, the difference was 23 percent.

The report was published in the Journal of the American College of Cardiology.

Dr. Michael Weber, a professor of medicine at the State University of New York Downstate College of Medicine in New York City, welcomed the study, saying "We now can have confidence

that even moderately high blood pressure in young people does carry risk and should be treated".

"Treating young people may give us a good opportunity to make lifelong changes that could protect them from heart disease and strokes in later life", he said. "Such treatment might

include lifestyle changes and medications to lower blood pressure", he added.



*"This is an interesting study because it covers a large number of people over many years. It shows how important it is for everyone to measure their blood pressure from an early age."*



NEWS

## WILL YOUR JOB SEND YOU TO AN EARLY GRAVE?

If you've ever joked your job will be the death of you - you're not alone.

Millions of workers say work is leaving them tired, stressed and overweight, a survey found. Many feel their work life is leading them to eating a poor diet, preventing them from doing enough exercise and leading to excess drinking and smoking.

The survey was carried out by the British Heart Foundation, which is now calling on employers to encourage staff to spend 10 minutes a day improving their lifestyle.



*"We echo the British Heart Foundation's call for employers to encourage their staff to spend ten minutes a day improving their lifestyles. We all know that taking a bit more exercise and looking after ourselves is beneficial in the long run."*

# Blood pressure news

NEWS ♥

## WE SHOULD TREAT MORE PEOPLE FOR HIGH BLOOD PRESSURE?

About 10 million heart attacks and strokes worldwide could be averted in a decade by treating high blood pressure in just half of those who need it, two leading United States public health agencies say.

Hypertension or high blood pressure is the main risk for cardiovascular diseases such as heart failure and stroke, which are responsible for one in three deaths worldwide, according to the U.S. Centers for Disease Control and Prevention (CDC).

In *The Lancet*, CDC director Tom Frieden and his colleagues described a treatment project for hypertension. It draws on how HIV and Tuberculosis treatments were provided in poorer countries.

The standardised treatment would include specifics on drug doses, and involve doctors, community volunteers, pharmacists and nurses. It would reduce barriers for patients, such as providing once-daily medications, and track progress.



*"These figures are astounding – in the UK we are embarking on a national programme to reduce blood pressure with Public Health England, so we hope to see Tom Frieden's goal realised - sooner rather than later."*

## Children's meals have too much salt

Children's meals served in 'family friendly' eateries still contain worryingly high levels of salt – with over a quarter of meals (29%) containing more than 2g of salt per meal.

The survey, which is the first to analyse the salt content of 218 children's meals from 23 different eating establishments, revealed the top salty offenders include:

- Burger King Kids' Veggie Bean Burger with Small Fries: 4.6g salt per serving (155% of 4-6 year old's maximum recommended intake) N.B. recently increased from 2.8g salt.
- Hungry Horse Pic 'n' Mix Large Ham with Mashed Potato & Baked Beans: 4.2g salt per serving (141% of 4-6 year old's maximum recommended intake) N.B.

recently increased from 3.2g salt per serving.

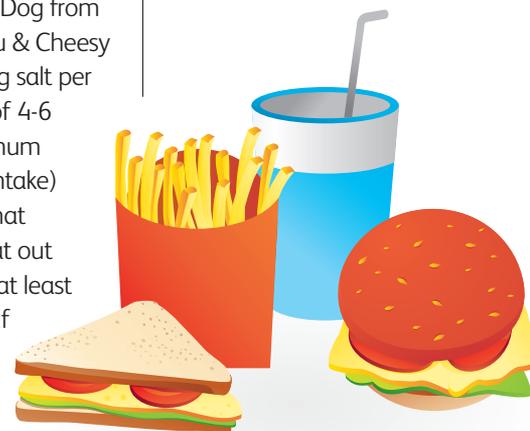
- Loch Fyne Seafood & Grill Bangers & Mash with Gravy: 4.0g salt per serving (135% of 4-6 year old's maximum recommended intake).
- Beefeater Mr Noisy's Bangers and Mash with Peas & Gravy: 3.9g salt per serving (130% of 4-6 year old's maximum recommended intake).
- Bella Italia Pizza Dog from the Piccolo Menu & Cheesy Garlic Bread: 3.7g salt per serving (124% of 4-6 year old's maximum recommended intake)

It is estimated that 40% of parents eat out with their children at least once a fortnight. If a 3 year old child were to dine out on

some of the high salt dishes instead of lower salt options, they would be consuming a whopping 10.5 teaspoons of extra salt per year.

By switching from a high salt to a low salt meal, parents could give their child nearly 3g less salt in just one meal.

Have a look at our pull-out on pages 12 and 13 to see how much your children know about salt hidden in food.



## EAT MORE FRUIT AND VEGETABLES TO LOWER YOUR BLOOD PRESSURE

Eating more fruit and vegetables has been proven to help lower blood pressure. Fruit and vegetables are full of vitamins, minerals and fibre to keep your body in good condition. They also contain potassium, which helps to balance out the negative effects of salt. This has a direct effect on your blood pressure, helping to lower it. To help lower blood pressure, adults should eat at least 5 different portions of fruit and vegetables per day. A portion is 80 grams, or roughly the size of your fist.



### THE FOLLOWING AMOUNTS REPRESENT A PORTION:

- A dessert bowl of salad
- Three heaped tablespoons of vegetables
- Three heaped tablespoons of pulses (chickpeas, lentils, beans and so on)
- One medium-sized fruit (apple, orange, pear or banana)
- Two smaller fruits (plums, apricots, satsumas)
- One slice of a large fruit (melon, pineapple or mango)
- Two to three tablespoons of berries or grapes
- A glass (150ml) of fruit or vegetable juice
- One tablespoon of dried fruit



## NEW STUDY SHOWS CHILDREN CAN PLAY A KEY ROLE IN LOWERING FAMILY'S SALT INTAKE

A new study carried out by Queen Mary University of London, The George Institute for Global Health at Peking University Health Science Center and Changzhi Medical College has shown that by educating children about salt their family's salt intake can be lowered..

The controlled trial conducted in 28 primary schools in Changzhi, northern China resulted in salt intake being reduced by a quarter in children, parents and grandparents with a significant fall in systolic blood pressure in adults. If the reduction on blood pressure was to be replicated across the country, it is estimated that this would prevent approx.153,000 stroke and 47,000 heart attack deaths per year in China.

The study included almost 280 children and over 550 adult family members including parents and grandparents with an average age of 44 years.

During the study, children were taught about the dangers of eating salt and how to reduce it using the schools' usual health education lessons. Children then delivered the salt reduction message to the whole family. In particular, children needed to persuade the person who did the cooking to reduce the amount of salt used at home. The salt reduction education lasted for one school term.

Salt intake in China is very high. Unlike in developed countries, about 80% salt in the Chinese diet is added by the consumers during cooking or in sauces. So far, no country has

demonstrated a successful salt reduction programme where most of the salt is added by consumers.

"The study provides a novel, feasible, effective and important approach to reducing salt intake in the population where most of the salt in the diet is added by consumers" says Dr Feng He, co-principal investigator of the study, member of WASH, (World Action on Salt and Health) and Senior Research Fellow at the Wolfson Institute, Queen Mary University of London. "As the salt reduction education was delivered to children using the schools' usual health education lessons, it could be easily incorporated into the national school curriculum. A nationwide implementation will lead to a major reduction in salt intake in the Chinese population and therefore a reduction in strokes and heart attacks."

Professor Graham MacGregor, co-principal investigator of the study, Chairman of WASH (World Action on Salt and Health) and Professor of Cardiovascular Medicine at the Wolfson Institute, Queen Mary University of London says "This study has achieved a reduction in salt intake of a quarter. Such a big reduction in salt intake could prevent approximately 400,000 stroke and heart attack events in China, half of which would be fatal".

**The study was funded by the UK MRC (Medical Research Council) and it is part of the GACD (Global Alliance for Chronic Diseases) Hypertension Prevention Programme.**



## TEACHER RAISES £2,000 FROM RUN

PE Teacher, Rebecca Darke, from Bath took part in the Bath Half Marathon on 1st March in memory of her dad, Phil, who died from heart failure in July 2013.

Rebecca, 24, originally from Kingsbridge in Devon, joined the thousands of people who took to the streets, as she wanted to raise money and awareness for the charity Blood Pressure UK.

Rebecca said: "My Dad died very unexpectedly in July 2013 at just 47 years old, and the reason behind this was due to high blood pressure which eventually caused heart failure. He was aware he had high blood pressure, but not of the effect it was having on his body. I have chosen to raise funds for Blood Pressure UK to raise the importance of everyone knowing what their blood pressure is, and understanding the need to take action to maintain the correct level in order to protect their health.

**To support Rebecca visit <http://uk.virginmoneygiving.com/RebeccaDarke3>**

## Blood pressure news

NEWS ♥

### THE FOOD WE EAT IS THE BIGGEST CAUSE OF DEATH AND ILL HEALTH IN THE UK

The food we eat is now the biggest cause of death and ill health in the UK, owing to the large amounts of salt, saturated fat and sugars added by the food industry. The UK is in desperate need of an independent agency to improve nutrition, which the responsibility deal has failed to do according to a new paper by CASH (Consensus Action on Salt and Health), published in the BMJ.

The UK's salt reduction programme, started in 2005 and pioneered by the Food Standards Agency (FSA) and CASH, has been considered a worldwide success. The programme involved a collaborative effort with the food industry to reduce salt in

the nation's diet. This was done by setting up specific salt targets for 86 categories of food, with the aim of re-setting them every four years. Whilst the targets remained voluntary, monitoring of the food industry was maintained throughout, ensuring no company lagged behind. As a result, significant reductions in salt intake were made at a population level, consequently reducing blood pressure and resulting in fewer deaths from heart attack and stroke.

Unfortunately responsibility for nutrition has been taken away from the FSA disturbing progress in salt reduction made by the FSA. CASH is now calling for urgent action



to protect and improve the nation's health together with an independent agency for nutrition and a transparent monitoring programme to improve the food that we eat once and for all.

"The food industry is the biggest and most powerful industry in the world. Most of the foods that it currently provides are very high in salt, fat and sugars, causing increased risk of strokes, heart failure and heart attacks, and predisposing to cancer than healthier alternatives. It is

therefore imperative that robust mechanisms should be set up immediately to control the food industry in a similar way to the tobacco industry" says Sonia Pombo, Nutritionist at CASH and co-author at Queen Mary University of London and lead author of the BMJ paper.

"If the food industry were forced to produce healthier food, it would result in major reductions in cardiovascular disease and cancer, as well as healthcare costs."

### AND FINALLY.... THERE IS 'NO PROOF' THAT BAD RELATIONSHIPS RAISE BLOOD PRESSURE!

A study published in April suggested that husbands had higher blood pressure if their wives were more stressed. The headline in the Mailonline ran "If you have ever blamed your partner for making your blood boil, a new study could be the evidence you need to prove it's true."

The study involved 1,356 older married couples in the US. They completed two sets of assessments four years apart, which asked questions about their stress levels and marital satisfaction, and also measured their blood pressure. The researchers expected to see evidence that more stress was linked to higher blood pressure, but also wanted to see if the effects differed between men and women.

The researchers concluded that their findings indicate that in a marriage, "(a)

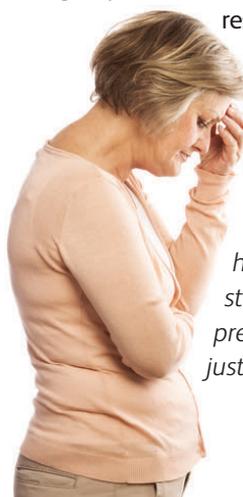
stress and relationship quality directly affect the cardiovascular system, (b) relationship quality moderates the effect of stress, and (c) the [two] rather than only the individual should be considered when examining marriage and health".

Overall, this study looking at the relationships between reported chronic stress, relationship quality and blood pressure in a group of married couples will be of interest to social

researchers. But readers should not read too much into these findings, as the study had many limitations and did not have conclusive results.



"Though ongoing stress is likely to have a negative effect on your health, this study does not prove that the stress of a bad relationship affects blood pressure, so you can't pass on the blame just yet!"





Spotlight on:

# Obstructive sleep apnoea

Obstructive sleep apnoea (OSA) is a condition where the walls of the throat relax and narrow during sleep, interrupting normal breathing. OSA can sometimes lead to further problems, such as high blood pressure, if it is not treated.

**A**pnoea is where the muscles and soft tissues in the throat relax and collapse sufficiently to cause a total blockage of the airway for 10 seconds or more.

During an episode, the lack of oxygen triggers your brain to pull you out of deep sleep – either to a lighter sleep or to wakefulness – so your airway reopens and you can breathe normally. After falling back into deep sleep, further episodes of apnoea and hypopnoea can occur.

These repeated sleep interruptions can make you feel very tired during the day. In people with OSA, the airway has narrowed as the result of a number of factors, including:

- being overweight or obese
- having a large neck
- taking medicines that have a sedative effect, such as sleeping tablets
- having an unusual structure in the neck, such as a narrow airway, large tonsils, adenoids or tongue, or a small lower jaw
- smoking or drinking alcohol, particularly before going to sleep

Most cases of OSA develop in people aged 30 to 60 years old, although it can affect people of all ages, including children. In the UK, it is estimated around 4% of middle-aged men and 2% of middle-aged women have OSA. Most people with OSA snore loudly. Their breathing may be noisy and laboured, and it is often interrupted by gasping and snorting with each episode of apnoea. As someone with OSA may not notice they have the condition themselves, it is likely that OSA often goes undiagnosed unless a partner or family members picks it up.

OSA is a treatable condition, and there are a variety of options that can reduce the symptoms:

- lifestyle changes – such as losing excess weight, cutting down

on alcohol, stopping smoking, sleeping on your side, and avoiding the use of sleeping tablets and tranquillisers

- using a continuous positive airway pressure (CPAP) device – these devices prevent your airway closing while you sleep by delivering compressed air through a mask
- wearing a mandibular advancement device (MAD) – this gum shield-like device holds your jaw and tongue forward to increase the space at the back of your throat

Surgery, a last resort, may also be an option if OSA is thought to be the result of a physical problem that can be corrected surgically, such as an unusual inner neck structure. Poorly controlled OSA can increase your risk of developing high blood pressure, having a serious accident caused by tiredness (such as a car crash), having a stroke or heart attack, and developing an irregular heartbeat (such as atrial fibrillation).

The good news is that when treated, your risk of these complications can come down significantly. You should see your GP if you think you might have OSA. Dr Manish Saxena says “The final pathways of how OSA increases blood pressure are not absolutely clear, but we believe that it leads to changes in the body which contribute to metabolic syndrome. These changes leads to worsening of heart function, high blood pressure, higher sugar levels or worsening of diabetes, increased night time passing of urine, dry mouth and night sweats.

“If suspected of OSA, patients are referred to sleep or respiratory clinics for assessment and treatment. If diagnosed and properly treated, it can make significant difference not just in cardiovascular risk and other co-morbidities such as high blood pressure, but also in patients’ quality of life and higher energy levels.”



Blood pressure UK's Chairman, Professor Graham MacGregor, has dedicated his life to improving the public's health, and has one simple conclusion:



# CHANGING THE FOOD ENVIRONMENT IS EASIER THAN CHANGING EATING HABITS

**I**n an interview given to Public Health Today in December 2014, Professor MacGregor explains why he believes it is easier to change the food we eat rather than our behaviour.

**How did you come to focus your research interest on salt?**

During my training as a Nephrologist I was interested in the relationship between the kidney's control of sodium and how it maintained sodium balance. We were fortunate to

have a metabolic ward which allowed us to carry out careful balance studies in which we were looking at the effect of blocking the renin-angiotensin system on different salt intakes. This led me to realise the over-riding importance of salt in regulating blood pressure. I was surprised at this time that blood pressure pundits such as Sir George Pickering felt there wasn't much evidence that salt affected blood pressure. In view of this, I set up a double-blind study in the late

1970s which clearly showed that a modest reduction in salt intake caused relatively large falls in blood pressure. This put salt reduction as a means of reducing blood pressure on the map.

**And your shift into advocacy?**

Even then I was aware of opposition from the food industry to reducing salt intake. I was on the COMA (Committee on Medical Aspects of Foods) report in the late 1990s, which provided expert

## Besides salt and sugar we need to reduce the huge amounts of fat which are another source of calories

advice on how to change diet to prevent cardiovascular disease. One of the many recommendations it made in 1994 was to reduce salt.

This was initially endorsed by the Conservative government, but the food industry started to campaign about the 'nanny state'. The Chief Medical Officer then announced that the recommendation would not be implemented. It was then revealed in the British Medical Journal (BMJ) that several food companies had threatened to withdraw funding from the Conservative Party. It was alleged by the BMJ that someone from Downing Street had ordered the Department of Health to rescind the specific recommendation to reduce salt.

This made several members of COMA so incensed that we decided to set up an action group called CASH (Consensus Action on Salt and Health). I was coerced into running this, and hadn't much clue what to do. But over time we learned how to write press releases and work with the media. We were successful in changing the Department of Health policy on salt and then, through working closely with the public health minister and the Food Standards Agency, the UK salt reduction policy was started, which then went on to lead the world in reducing salt.

### Why do you think CASH has been so successful?

If I am going to do something, I want it to be successful. I have always been quite driven but also had very good people working with me who deserve great credit, and at the same time, a group of all the experts in the UK on salt were very supportive.

### What triggered your interest in sugar and public health?

Like salt, sugar can also be easily reduced slowly so that the public don't

notice. Having seen the success of the gradual reformation of salt, particularly in the UK, I thought: Surely we can do something about obesity and Type-2 Diabetes? We tried to persuade health and obesity experts to do it, but none of them were interested. At the same time we realised that sugar wasn't itself that toxic, unlike salt, but it was a completely unnecessary source of calories that gave no feeling of satiation. So we decided to set up an action group on sugar to reduce calorie intake and sugars. Given our previous experience we developed a very clear plan of how to reduce calorie intake through the reformulation of sugar and fat. We now have the more difficult task of persuading the UK Government to take action.

Unfortunately, the Food Standards Agency is no longer involved, due to Lansley's mad Responsibility Deal, which has added to the difficulties of getting anything done in UK public health. We may have to focus on other countries to get sugar reformulation going.

### What else could be done to improve our diet in Britain?

Besides salt and sugar we need to reduce the huge amounts of fat which are another source of calories, particularly saturated fat. Palm oil is one of the worst – it is incredibly cheap and stuffed in all sorts of products. We would like to see an increase in fruit and vegetable consumption, but it is more difficult to persuade people to change their habits than to change the food environment, particularly by incremental reformulation.

At the moment, obesity is one of the sixth or seventh causes of death worldwide, but is rapidly increasing. Once you have it, there is very little you can do besides having a surgical operation on the stomach. I remember

how trying to get obese people who attended a blood pressure unit to lose weight was a nightmare. Then years later, they would have put it back on. The only successful public health policy would be to prevent obesity and thereby the development of Type-2 Diabetes.

### What are you most proud of in your career?

The first paper we published in the Lancet on salt – but the excitement soon dies!

You must learn to delegate responsibility; you can't do everything yourself. I have had very good people advising and helping me with both the salt and sugar work, and also in our research.

### Is there anything that keeps you awake at night?

I've been very lucky in my career, and fortunate in not having to worry about things.

When I was younger, I saw very little of my children when I was training in nephrology, and I do resent that now.

### Is there anything you do to relax?

I like to do something that takes me away from all the politics. I love getting stuck into a garden design or project, like getting the chainsaw out and clearing trees. The one thing I hate is committees. None of the organisations I have set up have committees, which are often a way of venting hot air. Nothing gets done, and they often miss the bigger picture. In public health we need to do things that are practical and will work. Gradual health reformulation of food does work and will lead to major public health improvements.

**Interview by Liz Skinner  
First published in Public Health  
Today in December 2014**



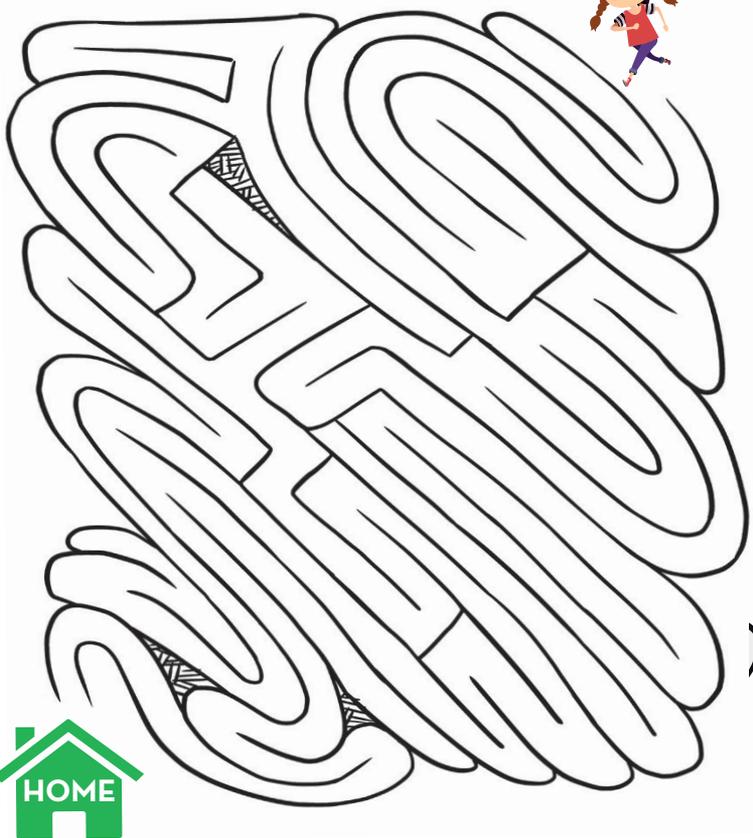
Play detective  
hidden salt lurking

Eating out can be a fun treat for the family. But much to everyone's surprise, many foods can be **FULL of HIDDEN salt!**

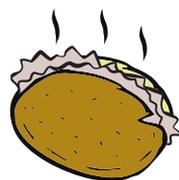
Too much salt can taste horrible and is bad for your health. Eating a lot of salt can give you high blood pressure and can cause heart disease.

To make sure you're not eating too much salt, always ask for **"LESS SALT PLEASE!"**

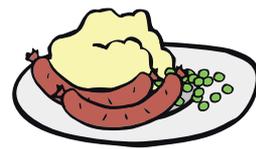
**GUIDE OUR FAMILY SAFELY HOME THROUGH THE MAZE**



**PUT THESE MEALS IN ORDER**



Tuna Jacket  
Potato



Sausages  
& Mash



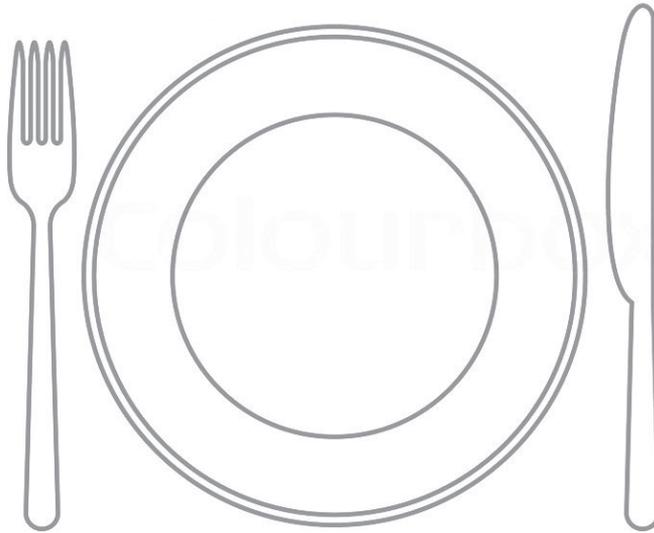
S  
E

re and find the  
king in your food



## WHAT'S YOUR FAVOURITE HEALTHY MEAL TO EAT?

Draw it below



## WORDSEARCH

Find the foods which are often high in salt:

S	H	G	A	Z	Z	I	P	B	A	K	I
L	P	S	I	O	D	A	Y	S	R	L	P
C	R	E	H	B	B	I	J	E	Q	N	D
H	M	I	A	S	R	F	T	V	K	O	A
E	C	P	M	N	A	T	F	I	E	M	E
E	R	T	S	R	U	N	G	L	T	M	R
S	H	A	P	B	L	T	N	O	C	A	B
E	S	E	G	A	S	U	A	S	K	G	J
Z	Z	M	N	E	K	E	T	C	H	U	P

- CHEESE ▪ BACON ▪ PEANUT ▪ BUTTER ▪ MEAT PIES
- PIZZA ▪ HAM ▪ BREAD ▪ OLIVES ▪ SAUSAGES
- KETCHUP ▪ GAMMON

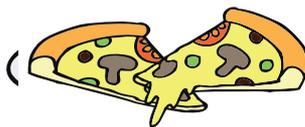
ER OF WHICH YOU THINK CONTAIN THE MOST SALT TO THE LEAST



Spaghetti  
Bolognese



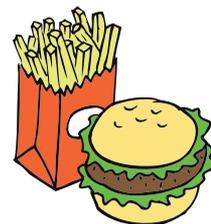
Chicken  
Stir Fry



Pepperoni  
Pizza



Cheese &  
Ham Toastie



Hamburger  
& Chips

Answer: The saltiest foods in order are: Pepperoni Pizza; Cheese and Ham Toastie; Sausages; Hamburgers; Chicken Stir Fry; Spaghetti Bolognese; Tuna Jacket

# FOCUS ON DIABETES

In 2010, there were approximately 3.1 million people aged 16 or over with Diabetes (both diagnosed and undiagnosed) in England.

**B**y 2030, this figure is expected to rise to 4.6 million, with 90% of those affected having Type 2 Diabetes. Diabetes UK estimates that around 850,000 people in England have Diabetes, but haven't been diagnosed. Many more people have blood sugar levels above the normal range, but not high enough to be diagnosed as having Diabetes. This is known as Pre-Diabetes.

If your blood sugar level is above the normal range, your risk of developing full-blown Diabetes is increased. It's very important for Diabetes to be diagnosed as early as possible, because it will get progressively worse if left untreated. You should therefore visit your GP as soon as possible if you have symptoms such as feeling thirsty, passing urine more often than usual, and feeling tired all the time.

#### The main symptoms of Diabetes are:

- being very tired
- feeling very thirsty
- urinating more frequently than usual, particularly at night
- cuts or wounds that heal slowly
- blurred vision (caused by the lens of the eye becoming dry)
- weight loss
- frequent episodes of thrush

Type 1 Diabetes can develop quickly over weeks or even days. But many people have Type 2 Diabetes for years without realising, because the early symptoms tend to be general rather than specific.

#### What causes Diabetes?

The amount of sugar in the blood is controlled by a hormone called insulin, which is produced by the pancreas (a gland behind the stomach). When food is digested and

## TYPE 1 DIABETES

- In Type 1 Diabetes, the body's immune system attacks and destroys the cells that produce insulin. As no insulin is produced, your glucose levels increase, which can seriously damage the body's organs.
- Type 1 Diabetes is often known as Insulin-Dependent Diabetes. It's also sometimes known as Juvenile or Early-onset Diabetes because it usually develops before the age of 40, often during the teenage years.
- Type 1 Diabetes is less common than Type 2. In the UK, it only affects about 10% of all adults with Diabetes.
- If you're diagnosed with Type 1 Diabetes, you'll need insulin injections for the rest of your life.
- You'll also need to pay close attention to certain aspects of your lifestyle and health, to ensure your blood glucose levels stay balanced.
- For example, you'll need to eat healthily, take regular exercise and have regular blood tests.

## TYPE 2 DIABETES

- Type 2 Diabetes is where the body doesn't produce enough insulin, or the body's cells don't react to insulin. This is known as insulin resistance.
- Type 2 Diabetes is far more common than Type 1. In the UK, around 90% of all adults with Diabetes have Type 2.
- If you're diagnosed with Type 2 Diabetes, you may be able to control your symptoms simply by eating a healthy diet, exercising regularly, and monitoring your blood glucose levels.
- However, as Type 2 Diabetes is a progressive condition, you may eventually need medication, usually in the form of tablets.
- Type 2 Diabetes is often associated with obesity. 85% of type 2 diabetics are overweight. Obesity-related Diabetes is sometimes referred to as Maturity-onset Diabetes, because it's more common in older people.

enters your bloodstream, insulin moves glucose out of the blood and into cells, where it's broken down to produce energy. However, if you have Diabetes, your body is unable to break down glucose into energy. This is because there's either not enough insulin to move the glucose, or the insulin produced doesn't work properly.

About 25% of people with Type 1 Diabetes and 80% of people with Type 2 Diabetes have high blood pressure. Having Diabetes raises your risk of heart disease, stroke, kidney disease and other health problems. Having high blood pressure also raises this risk. If you have Diabetes and high blood pressure together, this raises your risk of health problems even more.

If you have Diabetes, your doctor will want to be sure that your blood pressure is very well controlled. This means that they will probably want your blood pressure to be below 130 over 80. People with Diabetes and high blood pressure are sometimes given the blood pressure medicines known as ACE inhibitors or angiotensin receptor blockers, because they are thought to help protect the kidneys. However, other blood pressure medicines can also be used.

#### How do I lower my risk of Diabetes?

Many factors determine your risk of developing Diabetes - your age, your ethnicity, or any family history of Diabetes, for example. Some of these things you cannot do anything about. However, you can help to lower your risk of Type 2 Diabetes by following a healthy lifestyle - for example, by stopping smoking, by eating a healthy diet and keeping to a healthy weight, and by getting more active.

**It's very important for Diabetes to be diagnosed as early as possible, because it will get progressively worse if left untreated**



# Salt and sugar: their effects on blood pressure

Blood Pressure UK Chairman, Professor Graham MacGregor has co-written a paper with Dr Feng He, published in the *European Journal of Physiology*, which looks at the effect of sugar and salt consumption on blood pressure. This is a summary of their paper.

**B**oth dietary salt and sugar are related to blood pressure. The evidence for salt is much stronger, and various types of studies have consistently shown that salt is a major cause of raised blood pressure, and a reduction from the current intake of 9–12 g/day in most countries of the world to the recommended level of 5–6 g/day lowers blood pressure in both hypertensive and individuals with normal blood pressure, in men and women, in all age groups and in all ethnic groups.

Countries such as Finland and the UK that have successfully reduced salt intake have demonstrated a reduction in population BP and cardiovascular mortality, with major cost savings to the health service.

There are several other factors that also increase blood pressure, one of which is added sugars. The current high intake of added sugars increases obesity which, in turn, raises blood pressure. Recent studies also suggest that added sugars, particularly those in soft drinks, may have a direct effect on blood pressure. However, the relationship between soft drink consumption and blood pressure could be, at least partially, mediated by the effect of salt intake on increasing soft drink consumption.

Actions to reduce salt and sugar intake across the whole population will have major beneficial effects on health along with major cost savings.

Added salt and sugar are not part of mammalian or human diet. Indeed, there is absolutely no requirement for adding either to human diet. Salt was only added to food about 5,000 years ago, when the Chinese discovered that salt could be used to preserve food. Salt then became of great economic importance. It became the most taxed and traded commodity in the world, with intake reaching a peak around the 1870s. Salt intake then declined with the invention of the deep freezer and the refrigerator as salt was no longer required as a preservative. However, with the recent large increase in the consumption of processed, restaurant and fast food, salt intake is now increasing again.

Added sugar in human diet is a very recent phenomenon (c. 200 years) and only occurred when sugar obtained from sugar cane became very cheap to produce. This added sugar is a totally unnecessary source of calories and gives no feeling of fullness. It is well known that most soft drinks are high in sugar; however, many processed foods also contain large amounts of hidden sugars.

The added salt and added sugars have many harmful effects on health. For example, they increase blood pressure and obesity, both of which increase the risk of cardiovascular disease, the leading cause of death and disability worldwide. The evidence that relates salt to BP is

much stronger than sugar.

It is well established that high sugar consumption increases obesity which, in turn, increases blood pressure. There is now an emerging but inconclusive body of evidence that added sugars, particularly those in soft drinks, may have a direct effect on blood pressure independent of obesity. A recent systematic review and meta-analysis of randomised trials showed that a higher sugar intake was associated with a higher systolic blood pressure. Soft drinks and other sugar-sweetened beverages are the major source of added sugars in the diet. A recent review of 12 studies with 409,707 participants showed that sugar-sweetened soft drink consumption was associated with increased BP. However, the underlying mechanism for this association could be, at least partially, attributable to salt consumption. There is clear evidence for a causal relationship between salt intake and thirst and thereby total fluid consumption, including sugar-sweetened soft drinks. A carefully controlled metabolic study in adult humans where salt intake was changed has quantified the relationship

**A greater intake of ultra-processed food will increase salt, fat and sugar consumption and thereby increasing BP and CVD risk.**



between the change in salt intake and the subsequent change in fluid consumption.

In humans, like other mammals, salt is a major drive to thirst, and an increase in salt intake increases the amount of fluid consumed, and if part of this fluid is in the form of soft drinks, they will be increased proportionately. It is therefore likely that the observed association between sugar-sweetened soft drink consumption and BP is, at least, partially mediated by salt intake. At the same time, an increase in sugar intake stimulates insulin secretion, which in turn increases the consumption of food. A greater intake of ultra-processed food will increase salt, fat and sugar consumption and thereby increasing BP and CVD risk.

Both added salt and sugars have an effect on BP. However, the evidence for salt is much stronger. Indeed, salt reduction is one of the most cost-effective measures to prevent hypertension and CVD worldwide.

A reduction in the consumption of added sugars will provide additional beneficial effects on BP and also have many other health benefits. The WHO in its recently released draft guidelines on sugar intake for consultation (March 2014) stated that a reduction in added sugars from the current level of 13 % of total energy intake per day to below 5 % (i.e. below 25 g or six teaspoons) would be very beneficial to health. An action group (Action on Sugar) [56] was recently set up with a mission to achieve a gradual and sustained reduction in the amount of sugars added to foods and drinks, following a similar model to salt reduction pioneered by Consensus Action on Salt and Health (CASH). This model has become one of the most successful nutritional policies in the UK since the Second World War, by setting targets for the food industry to reduce the amount of salt added to all of their products, over a period of time. As this is done slowly, people do not notice the difference in taste. A reduction in population salt and sugar intake, even by a small amount, will have a major beneficial effect on health along with major cost savings.

14-20  
SEPTEMBER  
2015



# KNOW YOUR NUMBERS! WEEK

**DON'T MISS YOUR CHANCE TO TAKE PART IN THE UK'S BIGGEST BLOOD PRESSURE TESTING AND AWARENESS WEEK IN SEPTEMBER 2015, WHICH THIS YEAR TAKES PLACE BETWEEN 14 - 20 SEPTEMBER.**



**Blood Pressure UK** will be one of the exhibitors at the Over 50s show in London, and you can visit the show for free!

The show, which takes place in London's Olympia National Hall on July 13th and 14th brings together exhibitors focused on four main themes - Hobbies, Health, Crafts and Travel.

Blood Pressure UK will be at stand J2 with our friends at Omron. Other exhibitors at the show will be focusing on beating cancer, curing back pain, good mental health, better hearing and getting a good night's sleep.

If you would like to attend the 50+ Show and visit us, you will need to register (free online) to gain free entry. This also includes your free show guide magazine (normal price £3) and visitor bag, while stocks last.

To register online, please click <http://www.onlineregistration.co.uk/shows/50plusshow/london15/regfifty.php>

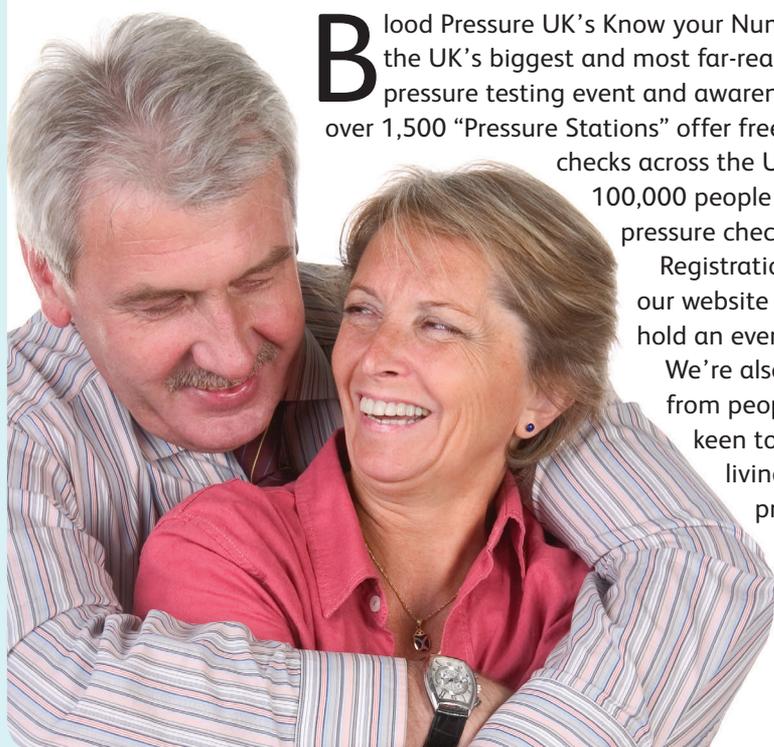
Registering online is very simple, and does take a very short time. Once you have registered you will need to print out your tickets and bring them with you to the show.

**For more information, please visit [www.50plusshow.com](http://www.50plusshow.com)**

**B**lood Pressure UK's Know your Numbers!® Week is the UK's biggest and most far-reaching blood pressure testing event and awareness week. Each year, over 1,500 "Pressure Stations" offer free blood pressure checks across the UK, enabling over 100,000 people to get a free blood pressure check.

Registration is now open on our website – so please sign up to hold an event and help save lives!

We're also interested in hearing from people who would be keen to tell their story about living with high blood pressure to help publicise the week. If you would like to take part contact [kyn@bloodpressureuk.org](mailto:kyn@bloodpressureuk.org)





# CAREWAY PHARMACIES - CARE FOR COMMUNITIES

Careway, the new name for 'All About Health' Pharmacies, is one of Blood Pressure UK's partner organisations. It delivers consistent, high levels of care in the community and also a great opportunity for you to take advantage of the health and wellbeing expertise of your friendly local pharmacy team.

Careway pharmacies are located in the heart of communities and work closely with GPs and hospitals. They also provide expert advice and support you close to home.

Visit a Careway Pharmacy and – without an appointment – you can access expert advice and treatment options for a range of common conditions such as eczema, asthma, diabetes and flu.

You can take advantage of specialist in-store services too, such as blood pressure checks, pain management and cholesterol screening. This can help you to keep a check on your own health and wellbeing. And you can speak in complete confidence with highly trained pharmacists about any concerns you, or your family, may have.

Not only that, at a Careway pharmacy you can access the very best products, including a wide choice of health, wellbeing and independent living products.

**And remember, your independent Careway Pharmacy is still the very best place to...**

- Take your prescription
- Buy your over-the-counter medicines
- Try new fragrances, skincare and beauty products ... and much more.

**TO FIND YOUR NEAREST CAREWAY PHARMACY VISIT [WWW.CAREWAY.CO.UK](http://WWW.CAREWAY.CO.UK).**



# WOULD YOU LIKE TO TAKE PART IN A Scientific Study?

It is becoming more common for people to be asked to self-manage their high blood pressure using internet-based support. This includes:

- Measuring blood pressure at home, instead of in the clinic with a doctor, and entering these readings into a website, which e-mails the readings to the GP.
- Making medication changes based on these home readings if blood pressure remains too high (without needing to see a doctor).
- Making lifestyle changes (such as diet or exercise) based on information given in a website.

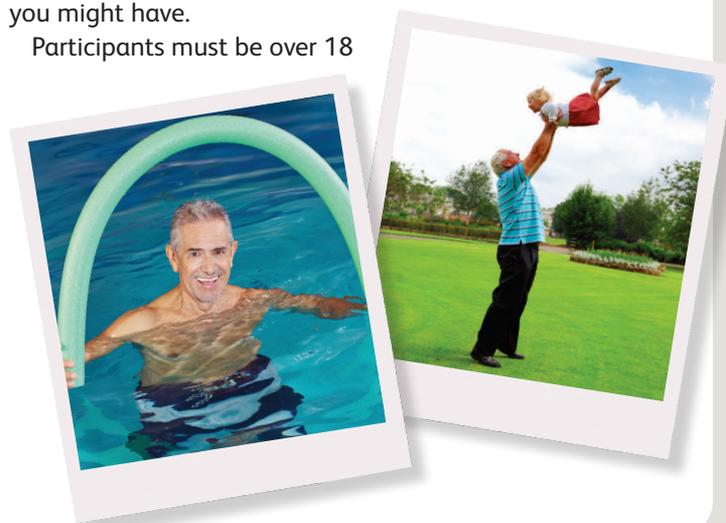
Our colleagues at the University of Southampton want to talk to people who don't want to self-manage their high blood pressure, to learn more about their views. We would be grateful if you could help them.

Taking part will involve you, a friend or a family member, talking to a researcher on the telephone for around half an hour. They will ask you to tell them what you think about managing your blood pressure in the three ways described above.

Participants will receive a £10 gift voucher to reimburse them for their time.

If you would like to know more about the study you can contact the researcher Dan Conway via email ([dc10g10@soton.ac.uk](mailto:dc10g10@soton.ac.uk)) or telephone (07940 527985), who will send you more details about the study and answer any questions you might have.

Participants must be over 18



# HAVE YOU BEEN ON A PARKRUN?

There is a phenomenon happening in parks up and down the country at 9am every Saturday. Thousands of people are joining together to run 5km, and the numbers are growing every week. They're part of Parkrun, the greatest mass sporting participation ever seen in the world.

**P**arkrun was the brainchild of Paul Sinton-Hewitt. In October 2004 he started the first event in Bushey with a few friends. Gradually other events followed, and there are now nearly 54,000 events worldwide, and nearly a million people take part every week.

Paul freely admits he loves running and the running community, and his aim was simple: he wanted to create an easy-to-run event that allowed anyone to come and race whenever it suited them. "Make it simple, make it free," was his aim. Paul became a CBE in 2014 for services to grass roots sports participation.

You don't have to be fast to take part, in fact many people walk the course and, although they are timed, the runs are not official races. They're free to enter. All you have to do is register online and print out your own personal barcode which is then used to record your time every week.

At each event you get a wide mix of people - from the gazelles who sprint round and finish in less than 20 minutes to people pushing baby buggies, individuals running with dogs (where they are allowed) and people for whom the weekly run is their only form of exercise.

Everyone who takes part in Parkrun has their own individual webpage, which records every run they've taken part in, their times, and how well they have done compared to the best in the world in their age group. You can plot your progress week by week, and when

you run a personal best the result is posted on the individual run website for everyone to see.

Each Parkrun event is run entirely by

**The support every person receives from their fellow runners and the volunteers really encourages you to keep going and complete the course**



volunteers, who give their time freely to set up each event, time the runners, process the results and clear away afterwards.

Claire Austin began running the Newent Parkrun as a way of keeping fit and keeping her blood pressure under control.

"I don't have high blood pressure but I know that as I get older it is likely that my numbers will increase, so it is important I do something now to keep my blood pressure healthy.

"I'm one of the slowest taking part, but so far I haven't come last, and the support every person receives from their fellow runners and the volunteers really encourages you to keep going and complete the course.

"One of the best things is that it is at 9am every Saturday. I've finished by 9.35am and back home by 10am, before most of the rest of my family have even got up. The results come through about noon and there's always a frisson of excitement to see whether I have recorded a personal best. So far my best time is 31 minutes and 17 seconds, and I'm determined to get below 30 minutes. My blood pressure is usually around 120/75 and I intend to keep it that way."

# Get cooking!

RECIPE ♥



Cooking low salt dishes with the kids in your family is a great way to get used to low salt. Try this super recipe for starters:

## BAKED FISH FINGERS, MUSHY PEAS AND HERBY POTATO SALAD

- Serves 4
- Prep time: 15 minutes
- Cooking time: 20 minutes

### INGREDIENTS:

- 1 egg
- 40g plain flour
- 2 slices of day-old bread made into breadcrumbs (100g)
- 2 lemons, 1 zested and juiced, the other cut into quarters
- 1 tsp fresh parsley, or other herb of choice (oregano or tarragon also works quite well)
- 500g white fish fillets e.g. cod, haddock or pollock
- 400g new potatoes
- Handful of freshly chopped chives and dill
- 100g low fat natural yogurt
- 400g peas

### METHOD:

- Let's get the oven on! Pre-heat at 200°C / Fan 180°C / Gas Mark 6.
- Crack the egg into a bowl and beat. In a separate bowl add the flour.
- Make your breadcrumbs using a food

processor. If using shop bought breadcrumbs, be sure to read the label and choose one low in salt. Add your breadcrumbs to another bowl, and mix in your choice of herbs, and the lemon zest.

- Slice the fillets of fish into 10 finger sized pieces, ensuring all the bones have been removed.
- Now the fun bit, and where the kids can get involved! Give your fish fillets a good coating of flour, then add it to your egg bowl, making sure it's completely covered. Then place the egg fillets in the breadcrumb bowl. Transfer onto a plate and do the next fish finger. Place on a baking tray with baking parchment and bake for 20 minutes, until golden.
- Leave the skins on the new potatoes and boil for 20 minutes, until cooked.
- Bring your peas to the boil and cook for 4 minutes. Add a small knob of butter and roughly smash the peas.
- Mix the yogurt with your chopped chives and dill, a crack of pepper and a squeeze of lemon juice. Toss the potatoes into the yogurt dressing and plate up.
- Once the fish fingers are cooked through, serve them with a spoonful of mushy peas and new potatoes, and a wedge of lemon.

## VEGETARIAN AUBERGINE LASAGNE

This light and easy dish is great for the whole family, not just vegetarians. Use sliced aubergine instead of lasagne sheets and season with pepper, basil and LoSalt to keep the sodium low.



- Serves 2
- 1 3/4 cup of chopped onion
- 2 garlic cloves, minced
- 16 oz. tomatoes
- 1/4 cup tomato paste
- 2 tbsp chopped parsley
- 1 tsp oregano
- 1/2 tsp dried basil
- Black pepper
- 1 large aubergine, peeled and sliced 1/4 inch thick.
- 1 cup shredded mozzarella cheese
- 4 tbsp shredded Parmesan

### METHOD:

- Coat large skillet with oil. Add onion and garlic and saute over low heat until onions look translucent.
- Stir in tomatoes, tomato paste, parsley, oregano, basil, pepper. Bring to a boil, reduce heat and simmer uncovered for 40-50 minutes. Stirring occasionally to prevent scorching.
- Steam the aubergine slices. Place 1 inches of water in a pot. Arrange aubergine slices on a steamer, cover pot and steam until tender, about 5 minutes. It is important not to overcook them.
- Combine mozzarella, Parmesan and set aside.
- Coat serving dish with olive oil. Place half the aubergine slices in pan. Top with half sauce and cheese mixture. Sprinkle with Parmesan.
- Repeat until you run out of aubergine and sauce. Finish with a final layer of the Parmesan cheese.
- Place the dish in the oven and bake at 190°C/375°F/gas 5 for half an hour until golden, crisp and bubbly.

# 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**



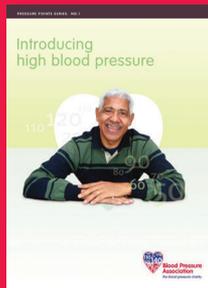
LoSalt is the great tasting way to a healthier lifestyle, containing only one-third the sodium of regular table, sea and rock salts.

LoSalt is low in sodium salt and high in natural potassium

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

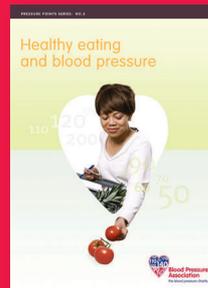
# Information & publications

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 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.



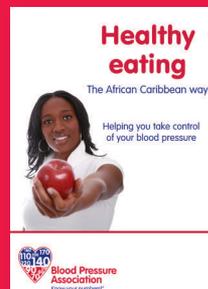
## Love your heart: a South Asian guide to controlling your blood pressure

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.

Call **020 7882 6255/5793** for your copy

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