

the magazine of Blood Pressure UK

ISSUE 47 > SUMMER 2020

POSITIVE

pressure

STAYING HEALTHY WHILE STAYING HOME

Use our whole health check to find the relevant healthy living tips for you

KEEP TAKING YOUR MEDICINES

Our advice on coronavirus and blood pressure

DUST OFF THE PICNIC BLANKET

It's time for a garden picnic with our delicious summer recipes



**Blood Pressure
UK**

Helping you to lower your
blood pressure

HOW DID BLOOD PRESSURE MEDICINES COME TO BE?

PROFESSOR GARETH BEEVERS
EXPLORES THE HISTORY
OF MODERN BLOOD
PRESSURE MEDICINES

FOLLOW US ON LIKE US ON

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.

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Welcome

Firstly, I really do hope that you are safe and well. These strange times are affecting us all in different ways, so please know that we are here to support you if you need us.

You are welcome to contact our helpline with questions about your blood pressure and heart health whether it's related to coronavirus or not. Just call 020 7882 6218 or email help@bloodpressureuk.org You may also find our information about coronavirus on page 8 helpful. The most important things to know are to keep taking your blood pressure medicines as prescribed, and if you think you may be having a heart attack or stroke please call 999.

All aspects of our health affect each other, including our blood pressure. If you are able to, now's the perfect time to check in with your overall health and wellbeing. Take the whole health check on page 10 to find the tips that are relevant to you.

We've noticed another common theme appearing in the research recently, and that's the interconnected nature of our health with our environment. It's apparent in the many ways that salt affects our bodies (page 4), in how our immediate environment affects the food we choose (page 5), and how food production affects the planet. As the research becomes clearer, so do the solutions.

As these seeds of ideas germinate and grow into action, we look forward to exploring them with you and doing our bit to build a healthier future. That's why we've created our Focus on the Future survey which you'll find inside this magazine with an addressed Freepost envelope. We'd be very grateful if you could take 10 minutes to fill it in and tell us where you think we should focus our efforts.

Stay healthy at home. We're here if you need us.

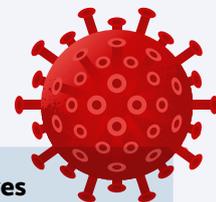
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If you've enjoyed this magazine but this isn't your own copy, then why not sign up to become a Blood Pressure UK member and have your own *Positive Pressure* delivered direct to your door, together with a host of other members' benefits?

Call us on 0207 882 6255

or visit

**[www.bloodpressureuk.org/
Supportingyou](http://www.bloodpressureuk.org/Supportingyou)**



Working from home

A few things we've been up to lately

Keeping our eyes firmly on the evidence

We are continually reviewing the evidence around coronavirus and blood pressure. We are in touch with Public Health England and health charities to make sure all advice and guidance is accurate and up-to-date. Keep an eye on our website for the latest.

Working hard for patients

Our Trustee and kidney specialist Dr Rebecca Suckling is on the front line taking care of kidney patients, who can be greatly affected by COVID-19. A heart-felt thank you goes to her and all those taking care of others at this time.



Working for racial equality

We made a trip to Hackney bus depot in February to measure blood pressures and offer advice for the staff. We're working with The Race Equality Foundation to reach people from black African and Caribbean backgrounds, who tend to have a higher risk of blood pressure-related health problems.



OUT AND ABOUT ♥

We'd like to say thank you

Thank you for supporting us with your membership and enthusiasm for our work. Your support allows us to do all of this and is especially important while we're unable to run some of our usual fundraising activities and awareness-raising events.

PUTTING MINDS AT EASE WITH OUR HELPLINE

We've opened up our helpline to the public to answer questions about blood pressure and coronavirus. Our Hypertension Nurse Specialist, Nirmala, is doing a great job putting people's minds at rest. Social media is also proving especially helpful as a place to provide information and a little light relief.



Making sense of the science

Our Trustee Professor Bryan Williams has been examining the data on the blood pressure medicines ACE inhibitors and angiotensin-receptor blockers, demonstrating there is no increased risk associated with COVID-19, providing reassurance to patients and their doctors.



A FEW OUTINGS EARLIER THIS YEAR

Our CEO Katharine gave an inspiring speech to students at the University of Exeter, her alma mater, about the value of careers in Public Health. We gave blood pressure checks at the Salt Awareness Week reception (page 5), and Trustee Rebecca Suckling attended the Westminster Health Forum policy conference to learn about innovations in health care where there was a growing sense of collaboration between researchers, policy makers and doctors.



Blood Pressure News

NEWS

MAJOR NEW RESEARCH SHOWS BENEFITS OF LESS SALT

State-of-the-art research shows why eating less salt means better health

Two important studies published this February clearly show that eating less salt not only lowers the risk of heart disease and stroke, but prevents numerous other diseases too.

The first study analysed 133 trials investigating salt and blood pressure, and showed that eating less salt lowers blood pressure with a dose response effect, meaning the less salt you eat, the more your blood pressure will fall.

Encouragingly, the effects were stronger in people who are older, have higher blood pressure, or are of non-white ethnicity – this is important as people from African Caribbean and South Asian backgrounds tend to have a higher risk of blood pressure-related disease.

A second, state-of-the-art, evidence review of almost 200 studies found that salt affects the body in numerous ways. As well as raising blood pressure, it leads to conditions such as kidney disease, stomach cancer, osteoporosis, dementia and obesity. The mechanisms are all interconnected and include effects on hormones, inflammation, the immune system, gut microbiome, fluid balance and damage to small blood vessels.

The authors for both studies include Graham MacGregor CBE, our Chairman and Professor of Cardiovascular Medicine, and Feng He, Professor of Global Health Research and friend of Blood Pressure UK. They point out that nationwide efforts to lower salt intakes are cost-effective and should be reinforced worldwide to save millions of lives each year.

 "These new insights show that the ways in which salt affects the body are more connected than previously thought."



"It ain't doing your health or your wallet any good"

We featured in a particularly salty episode of BBC 2's Trust me I'm a Doctor

First off, yoga was put to the test to see if it makes a difference to blood pressure and mental health as much as aerobic exercise (it does! Just in a different way). Later, our Chairman Professor MacGregor demonstrated why gourmet salts such as sea, rock and Himalayan pink salt are no better than regular table salt, and could even be worse.

The clear highlight was when Professor MacGregor poured an entire 1 Kilo conical jar of Himalayan pink salt out onto a set of weighing scales to demonstrate how much you'd need to eat to get a day's worth of potassium – busting the common myth that posh salts are healthier due to the extra minerals they contain. Presenter Dr Giles Yeo watched in baffled horror before commenting, "it ain't doing your health or your wallet any good". Search BBC iPlayer for Trust me I'm a Doctor series 9, episode 5.

Too much salt

The interconnected ways that salt affects your body

Raised blood pressure →

Damaged blood vessels →

Hormonal changes →

Inflammation →

Effects on the immune system →

Changes to gut bacteria →

Damaged stomach lining →

Calcium lost from bones →

Changes to fat metabolism →

Drinking more sugary drinks →



Heart disease
Heart failure



Dementia
Stroke



Chronic kidney disease
Kidney stones



Stomach cancer



Osteoporosis



Weight gain

Eat less than 6g of salt a day to stay healthy. Always check the label.

ARE FOOD MANUFACTURERS PLAYING HIDE AND SEEK WITH SALT?

Salt Awareness Week exposes the hidden salt added to the foods we buy

Every March, campaign group Action on Salt shines a spotlight on the harmful effects of salt on our health. This year's theme of hide and seek exposed the salt hidden in foods made by the food industry, leaving the public to seek out the lowest salt options.

As a nation we eat about a third more salt than the 6g recommended daily maximum and most of it is already present in the foods we buy. This year's House of Commons reception was home to a fascinating discussion from charities, food companies and Government on how to address this.

The ideas included roles for the



many different parts of the food industry, such as culinary schools providing nutrition education, catering suppliers cutting down on salt, and large chains leading the way. Meanwhile, charities and government should explore new ways to educate the public, including with social media, and children should have more nutrition education.

Blood Pressure The SAYS *While we all become more aware of the things that impact our health, we should all encourage restaurants, suppliers, caterers and product manufacturers to make healthy changes, for example by writing to them, so that everyone benefits.*

The House of Lords investigates food inequality

Public health campaign group gives evidence for salt and sugar reduction

The House of Lords Select Committee on Food, Poverty, Health and the Environment is investigating the links between inequality, public health and food sustainability. Mhairi Brown from our sister charity Consensus Action on Salt, Sugar & Health gave evidence about the strategies that would have the most effect. Number one was a strong salt and sugar reduction programme, arguing that after years of voluntary salt reduction targets for food manufacturers, it's time to make them mandatory.

Other key ideas were to make healthy food affordable, and healthy town planning to provide space for children to play and reduce the number of unhealthy takeaways.



Blood Pressure The SAYS *We look forward to seeing the final report from the House of Lords and how, after years of inaction, the Government intends to turn this into action.*

Why vegan foods are an opportunity that must not be missed

Healthy-looking plant-based foods are often crammed with salt and fat

Campaign group Action on Salt surveyed plant-based and vegan meals sold in restaurants, cafes and takeaways earlier this year and found they are often extremely salty. One curry option even contained more salt than 8 McDonald's hamburgers. Nearly half of the meals surveyed contained 3g or more of salt in one meal – half the recommended 6g daily maximum, and some contain far more.

The survey raised concern about the amount of salt and fat added to this new and growing category. The campaigners warn against a wasted opportunity – a shift towards more plant-based foods could help to make farming practices more environmentally-friendly and make diets healthier too, but not if they are full of salt and fat.

Blood Pressure The SAYS *We welcome the growing number of options for those trying to make ethical and healthy choices. The growing popularity of vegan foods presents an unmissable opportunity – it must not be another junk food opportunity.*



Find some delicious low salt recipes on page 18, plus a healthier alternative to salt called LoSalt on page 22.

The diets don't work

New study finds the short-term benefits of diets don't last

International researchers have compared 14 popular diets including Atkins, DASH and Zone and found that they all lead to weight loss and lower blood pressure in the short term, but the effects wear off within a year.

Results from 121 trials showed that in the first 6 months, dieters typically lost 4-5Kg, compared to people eating their normal diet. Their blood pressures also fell by around 5mmHg systolic (the top number) and 3mmHg diastolic, and all the diets had similar effects. But six months later these benefits had largely disappeared. It is unclear whether people were sticking to the diets or not.

 *Rather than 'go on a diet', it's better to make healthy changes that you can turn into habits in the long term.*



MORE EVIDENCE SUPPORTS RUNNING FOR HEART HEALTH

New research shows running lowers your blood pressure and the 'age' of your arteries

Not one but two new studies suggest running can improve the health of your arteries and stave off fatal illnesses.

One study reviewed all the evidence on running and the risk of dying during the following years. The result from nearly a quarter of a million people showed that even running once a week reduced the number of deaths from heart attacks, stroke and cancer during the study period.

The other, smaller, study gave clues about how running helps. A group of 138 (very committed) people took on a Marathon for the first time, training three times a week. After six months, their artery walls were less stiff, lowering the 'age' of their blood vessels – blood vessels tend to get stiffer with age. Their blood pressures were also 3-4mmHg lower on average.

 *Almost any form of exercise is good, it doesn't have to be running. Why not use your daily outing for a walk, jog or cycle outside? If that's not possible, walking about the house or garden, dancing in the kitchen or even doing the vacuuming are all still good for your heart.*

Our new website is going live!

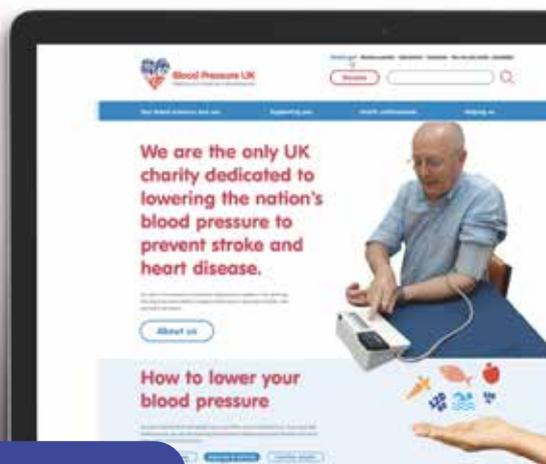
Our website has a shiny new look and is about to launch

After a thorough review and a very exciting design process, we're happy to let you know that our new website will be up and running this summer. We can't wait!

- **Enjoy the fresh, calm new look**
- **Find what you're looking for easily**
- **Read easy-to-understand, simple information**
- **Find all you need to know about managing your blood pressure**

Would you like to take it for a test drive?

We're now testing out the site to check that everything is running smoothly. If you would like to help, there's still time. Simply email us at info@bloodpressureuk.org And of course, a huge thank you to all who have volunteered so far.



Take part in Know Your Numbers! Week 2020

This September, help us spread the word about monitoring blood pressure at home

Know Your Numbers! is the nation's biggest blood pressure testing and awareness-raising campaign. Due to social distancing measures we won't be able to offer free pressure checks in our community 'Pressure Stations' this year, but we can still encourage the whole of the UK to Know Their Numbers! And we need your help!

Home monitoring offers a way to take control of your health, feel confident, and take the pressure off the NHS at the same time. It gives people a practical way to Know Their Numbers! without visiting their GP or pharmacist, and it really can save lives.



WILL YOU SUPPORT OUR 'PRESSURE PARTNERS' (THIS YEAR'S VIRTUAL 'PRESSURE STATIONS') AND HELP SPREAD THE WORD THIS YEAR? YOU COULD:

- ♥ host a 'Home Pressure Station' and measure the blood pressures of people in your 'social bubble'
- ♥ encourage friends and family to buy or borrow a blood pressure monitor and start measuring their blood pressure at home
- ♥ speak to community groups about home monitoring, such as your local Rotary, library or patient groups
- ♥ start a group chat called 'We Know Our Numbers' where you can share healthy living ideas
- ♥ tell us your blood pressure story (anonymously if you wish) so we can inspire others to know their numbers
- ♥ direct people to our website and helpline.



Know Your Numbers! Week will take place on 7-13 September

By taking part, you will be providing a great service to your community. We will support you with suggestions and resources. Visit our website at www.bloodpressureuk.org or email us at kyn@bloodpressureuk.org to get involved. You can register to take part until the end of August.

A few thank yous for our helpline

“ Thank you ever so much for your reply. I am pleased to tell you my blood pressure is now in the healthy range. This has been achieved with a total lifestyle change – no salt, no rubbish food, fruit, vegetables and fish daily, one-hour walks, and no alcohol or cigarettes. So yes, good times are coming.

“ I appreciate your attention during what is a very worrying time for all care-givers. I am reassured by your advice, and will certainly act upon it, particularly doing a couple of home blood pressure measurements a few minutes apart and taking an average. Having someone to seek advice from is a great help. Thank you.

“ Thank you again for spending time and effort answering my query in such a detailed and helpful fashion. Advice from organisations such as yours is to be trusted, whereas random searches can be misleading. I am truly grateful.



Our Hypertension Nurse Specialist, Nirmala, who runs our helpline

Your support can make all the difference

If you have not been affected financially by stay at home measures and you're able to make an extra donation, your support will go a long way. It will help keep our helpline running and fund our much-needed support services.

You can make a donation online or by cheque, you'll find our address on the inside front cover.



What does coronavirus mean for people with high blood pressure?

Our Hypertension Nurse Specialist, Nirmala, answers your questions

Does high blood pressure mean I'm 'high risk'?

High blood pressure by itself is not on the Government's list of 'high risk' health conditions. The most recent evidence from hospitals around the world shows that people with high blood pressure are not more likely to catch coronavirus or have a more severe reaction to it. As this is a new virus the evidence is still evolving and could change, so our advice is to follow the Government's social distancing measures closely to be on the safe side.

If you are over 70 or have a long-term medical condition such as heart disease, kidney disease, heart failure, diabetes (type 1 or 2), or you are heavily overweight (obese), coronavirus could be more serious if you do catch it, so do stick to the stay at home and social distancing measures.

What should I do if I have coronavirus symptoms?

If you have a fever, cough or difficulty breathing, tell your doctor or call NHS 111. Make sure you tell them that you are taking medication for high blood pressure – tell them the names and the dose, as this will help the doctors adjust the medicines if necessary.

Should I keep monitoring my blood pressure at home?

Yes. If you monitor your blood pressure already, continue to do so as normal, whether that's once a week or once a month. There is no need to check your blood pressure more often unless your health professional has advised you to.

Don't worry about one-off high readings, these are normal. It's only if you notice a consistent rise over several weeks that you should contact your GP or practice nurse.

What do I need to know about measuring my blood pressure?

To take your readings, take a few minutes to relax first. Sit comfortably with your feet flat on the floor with your back supported and your arm resting on a table at heart height. Stay still and quiet because moving or talking can affect the reading. Record two to three readings 1-2 minutes apart. Ignore the first one as it can be higher, then average the others. Use this as your reading and write everything down as it appears.

Should I keep taking my blood pressure medicines?

Yes. Keep taking your medicines as normal unless your doctor advises you otherwise. Stopping them can mean your blood pressure is no longer under control which could lead to serious health conditions.

There have been some unfortunate headlines claiming that ACE inhibitors (which have names ending in 'pril' e.g. ramipril, lisinopril, perindopril) or ARBs (ending in 'sartan' e.g. losartan, candesartan, valsartan) could mean you're more likely to catch coronavirus or make it more serious, but current evidence suggests this is not the case, and could even be protective.



on the screen to keep track.

Measure your blood pressure at around the same time of day each time. Blood pressure varies throughout the day, so if you measure it at different times you won't be comparing like with like. Your numbers will also be affected by things like when you take your tablets, eat, exercise, and if you feel stressed or worried. It's good to have a routine – like measuring your blood pressure before breakfast.

What if I'm new to home monitoring?

Measuring your own blood pressure means you can keep an eye on your numbers without leaving the house. It gives you a sense of reassurance, confidence and empowerment. You can then call your doctor if there are any notable changes which could need attention, and schedule an appointment at the surgery if needed.

You can buy a home monitor online or from some pharmacies for around £30 – there's no need to spend a fortune. Choose a fully automatic (digital) one with an arm cuff as these are more reliable than wrist or finger cuffs. You'll need a cuff size that fits your arm well, the pharmacist should be able to help with this. Make sure it's validated – you'll find a list of validated monitors from the British and Irish Hypertension Society at www.bihsoc.org or simply call us.

Most people find home monitoring

What should I do about other health problems?

If you have other health problems that you are concerned about that are not related to COVID-19, or you have signs or symptoms that are unusual for you, do contact your doctor or another NHS service by phone. It is OK to seek help for medical problems even while the NHS is busy.

very helpful but a small number find it makes them feel more anxious. If you would like to discuss whether it's right for you, feel free to contact us.

If you have atrial fibrillation (a type of irregular heart beat), you may need to have your blood pressure measured in person by a nurse or pharmacist.

Is it OK to call 999?

Yes. If you were to have a serious problem such as a heart attack or stroke, it is essential that you call 999 – even if you're not sure whether it really is a heart attack or stroke. The NHS would much rather you call and it turns out to be a false alarm than for you to miss the treatment you need.

It may help to be aware of the signs:

The signs of a heart attack vary and are not always obvious, and you may have one or a combination. They include chest pain or a feeling of squeezing or pressure on your chest, which may radiate through your neck, jaw, arm, back or tummy. It may be mild or severe. Lesser known signs include feeling breathless, suddenly feeling deeply anxious or panicked,

sweating, feeling lightheaded or dizzy, feeling or being sick, coughing or wheezing.

The most common signs of a stroke can be summarized with the 'FAST' acronym.

Face – your face may droop on one side, including your eyes and mouth, and you may not be able to smile

Arms – you may not be able to lift one or both arms

Speech – speech may be slurred or talking difficult

Time – time to call 999 – even if the symptoms disappear.

We hope you will have no need for this information, but it's best to be aware.

What can I do to look after my health generally?

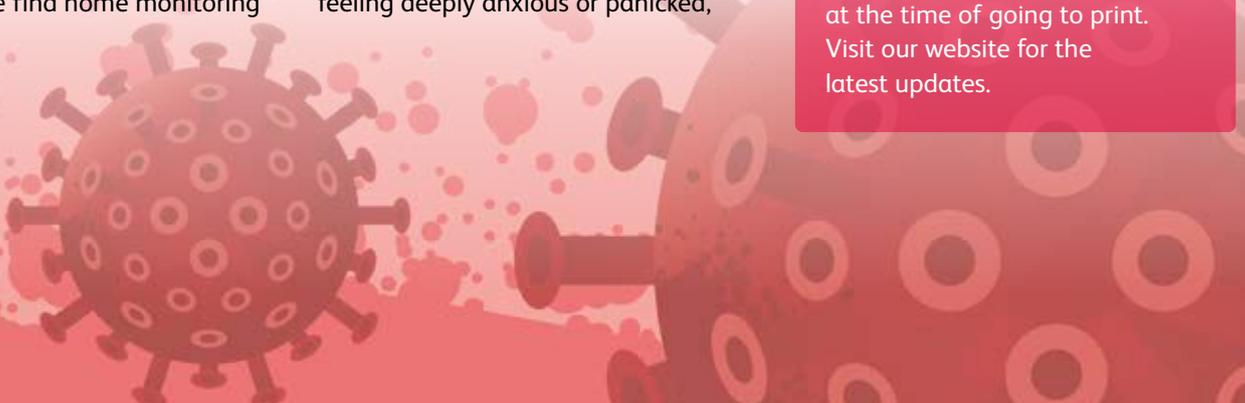
Pay attention to all the usual advice for looking after your blood pressure and your health. Eat healthily, be active, look after your weight, avoid alcohol beyond the recommended limits and try to stop smoking if you smoke. Have a look at our ideas on the next page.

What if I still have questions?

Feel free to contact our helpline on 020 7882 6218 or help@bloodpressureuk.org

We are happy to help.

All information was correct at the time of going to print. Visit our website for the latest updates.



Staying healthy while staying home

All areas of our health can affect each other, and now's the perfect time for a 'whole health' check

Physical activity

Have you done at least 150 minutes of moderate intensity activity this week?

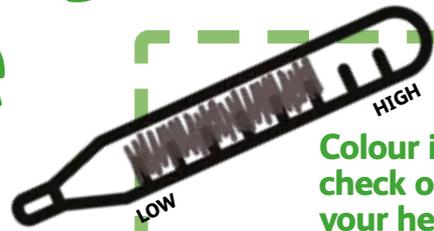
- Make the most of your daily outing if you can and enjoy a walk, jog or cycle outside. You'll get extra benefits like vitamin D from sunlight and potentially better sleep too.
- Use NHS Couch to 5K to get you up and running 5K in just 9 weeks.
- Get up and move about throughout the day – walk around the house or march on the spot. Set a timer to remind you.
- Do some simple exercises such as squats, arm raises to the side while holding food tins (palms down), bicep curls with tins (palms up), standing on the balls of your feet and lowering down again, or press-ups against a wall.
- Try Joe Wicks' Home Workout for Seniors on YouTube.



Alcohol

Have you stayed below the recommended maximum of 14 units of alcohol this week?

- Alcohol can affect your health, your sleep, your mood and even your immune system. A lot can raise your blood pressure.
- Keep track of what you're drinking, as it can easily creep up.
- 14 units is about 6 glasses of wine or 6 pints of beer.
- Have some alcohol-free days each week.
- Try an alcohol-free beer or wine, or low strength options.
- Make sure you're drinking enough water too.
- If you'd like support with cutting back, contact Drinkline on 0300 123 1110.



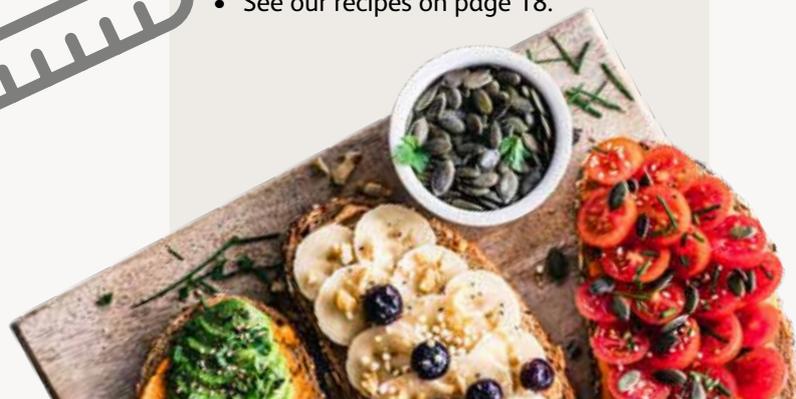
Colour in to check on your health

Mark on the thermometers how well each of the following areas have gone for you this week. If something's gone well it gets a high temperature. If anything gets a low temperature, pay particular attention to that area of your life this week and use the tips to help you. You can do this exercise again in future to help focus your attention where it's needed.

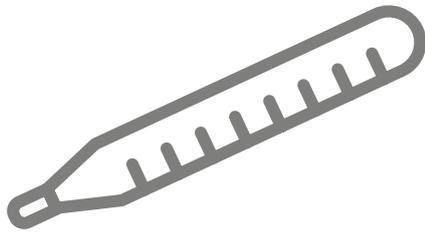
Food

Have you eaten your five fruit and veg a day and lots of fibre? Are you aware of your salt intake?

- Make a meal plan for the week to plan your shopping, and get creative with what's in your pantry.
- Prioritise fruit, veg, pulses (such as beans, peas and lentils) and grains. They can be frozen, dried or tinned without added salt – they don't all have to be fresh.
- Watch the hidden salt content of food – check the labels and eat less than 6g a day. Download the FoodSwitch app to help.
- Avoid ready-made, processed and takeaway foods where possible, including sauces, soups, processed meat and baked goods.
- See our recipes on page 18.



Sleep and relaxation



Have you been falling asleep quickly and sleeping well?

- Make space in your day for some relaxation – try deep breathing, meditation, mindfulness exercises, a warm bath or listening to relaxing music.
- Try these as a wind down before you go to bed.
- Introduce a screen curfew and remove all screens from your bedroom at night – the light affects your sleep hormones.
- Try sleep and mindfulness apps such as Calm and Headspace.
- If you wake up in the night and can't get back to sleep, get up and do something else until you feel tired again, like a jigsaw puzzle or colouring in book for adults.
- Limit the amount of news coverage you consume – just check in once or twice a day – and only follow trustworthy sites including the BBC.



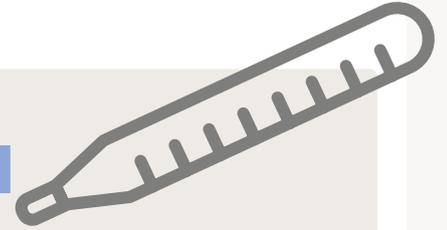
Keeping in touch with friends and family

Have you spoken to other people this week?

- Keeping in touch can make you feel better, and talking things through can help if you're feeling down or anxious.
- There are several apps and services for keeping in touch with friends and family with video chat. Zoom, Houseparty, Skype, Whatsapp video and Google hangouts are all popular and free. (Always make sure you review the security settings.)
- Age UK have a free telephone service called Call in Time where over 60s can be matched up with someone else looking to make a friend and arrange a weekly call. Visit ageuk.org or call 0800 678 1602.
- The Silver Line has a free helpline for people aged 55 and over, providing information, friendship and advice. Call 0800 470 80 90, open 24/7, or visit www.thesilverline.org.uk
- There are organisations including Mind on 0300 123 3393 and Samaritans on 116 123 if you are struggling and need extra support.

Do you have any tips to share?
We'd love to hear them.

Fun and entertainment



Have you done anything fun or entertaining this week?

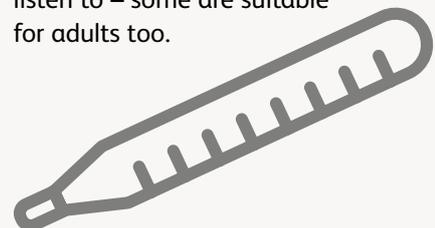
- Have fun with video apps. Try a dining room disco and dance around your living room while your friends do the same. Or play games! Quiz, Pictionary and charades-style games all work a treat.
- Engaging with the arts has been linked to better health and wellbeing. Many theatres, operas and museums are streaming performances and tours online. Try the National Theatre, the Royal Opera House and the British Museum. There's more ideas on our website.
- Sow seeds. It's surprisingly uplifting. It's not too late to plant beetroot, carrots and turnips, peas and beans, salad leaves, kale and Swiss chard.
- Get dressed up! It can make you feel better.



Keeping your brain active and being creative

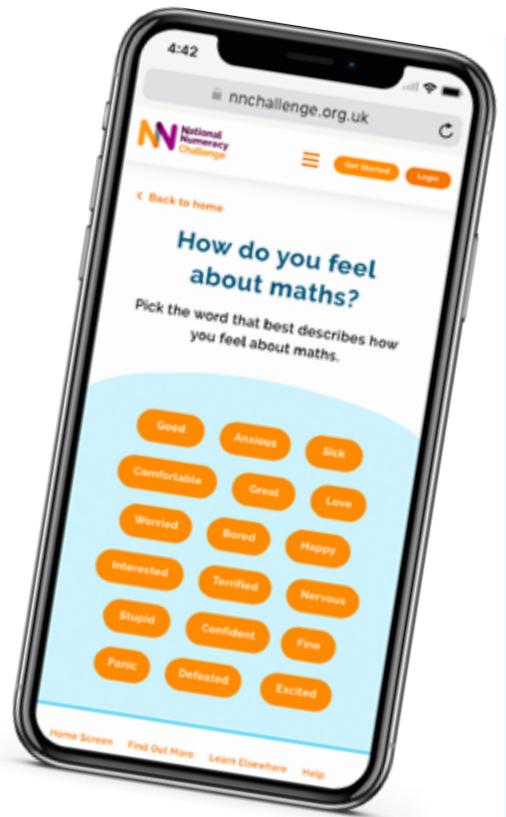
Have you tested your brain or indulged a hobby this week?

- Now's the ideal time to pick up a new hobby or creative outlet. Write a poem, draw a picture. Just think of some ideas you fancy trying and get started – it doesn't need to be 'good' and you don't have to show anyone, it's whether you enjoy it that counts.
- Find pursuits which flex your intellectual muscles too, like crosswords or sudoku.
- Brush up on your maths skills with the National Numeracy Challenge (see page 12).
- www.audible.co.uk are making children's books and learning resources free to listen to – some are suitable for adults too.

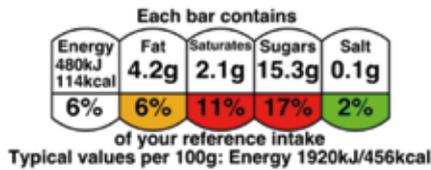


Get confident with numbers with National Numeracy

We often talk about how important it is to Know Your Numbers! but it's not only your blood pressure numbers that count. Here, National Numeracy explain how confidence with numbers can help you to stay healthy.



Understanding food labels is key to understanding what we're eating, but these are crammed with numbers, which can be daunting. In a YouGov survey for National Numeracy, only one in four adults were able to calculate the total recommended daily allowance of sugar from the food label for a chocolate bar. **Give it a go!**



When taking medication for blood pressure, you probably want to understand the risks involved. This means having confidence with numbers too. For example, if a tablet has a side effect which impacts 1 in 1000 people, how likely is it to affect you? Cancer Research UK found that nearly half got the answer wrong when asked which was the highest risk out of 1 in 100, 1 in 10, or 1 in 1000.

There are countless more examples of where you might want to use numbers in your daily life – such as monitoring your blood pressure at home. Many adults find this causes great anxiety, stress or fear. Often, we are tempted to avoid doing the maths altogether.

The National Numeracy Challenge is an online learning resource which helps you get the maths skills and confidence you actually need for everyday life, and leaves behind the more abstract skills you might

remember from school, like algebra and trigonometry. You can take a quick 10-minute check of how you feel about numbers as well as your skills, then be pointed towards the learning resources that will help you the most.

Have a go at the questions below, and register for free to get the full learning experience at: www.nnchallenge.org.uk/bpuk

QUESTION	A	B	C	D
1. An adult playing sports should drink at least 2 litres of water each day. <i>How many half-litre bottles is this?</i>	2	6	8	4
2. Mike's lunch contains 480 calories of energy. <i>What percentage is this of his target daily intake of 2000 calories?</i>	96 %	48 %	24 %	36 %
3. A dose of medicine is made by diluting one part of concentrate to 5 parts of water. <i>How much of the concentrate should there be in a 90ml dose of medicine?</i>	18ml	15ml	9ml	20ml
4. A fitness programme recommends walking 10000 paces a day, or about 60km a week. <i>According to this, what is the average length of one pace?</i>	1.02m	0.94m	86cm	70cm

Correct answers 1.D, 2.C, 3.B, 4.C



Cheltenham, a typical spa of the nineteenth century.

A history of blood pressure reduction

The consequences of a large volume pulse were known to the Chinese and the Greeks thousands of years ago, but it wasn't until 1896 that it became possible to measure blood pressure in clinical practice. There was, however, still no method to lower blood pressure by, and considerable doubt whether it would even be worthwhile. Professor Gareth Beevers takes a look at how modern blood pressure medicines came to be.

Back in the 1930s, there was great resistance to treating high blood pressure. The distinguished American cardiologist Paul Dudley White speculated that high blood pressure might be some sort of compensatory mechanism and that lowering it might be harmful. One British physician went further, commenting:

“...the greatest danger to a man with a high blood pressure lies in its discovery, because then some fool is certain to try to reduce it.”

The evidence for problems caused by raised blood pressure was, however, increasing. In 1945 the President of the USA, Franklin Roosevelt, died of a stroke just before the end of the war – his blood pressure was 240/130mmHg.

Then, in 1959, a study of untreated hypertension (high blood pressure) in patients in their 50s in Sheffield revealed that 88% of those with “malignant hypertension” (very high blood pressure and bleeding at the back of the eye) were dead within two years. Most died from strokes, kidney or heart failure.

Early attempts to lower blood pressure

The lack of effective medicines prompted many physicians to try other manoeuvres and diets to lower blood pressure, but few seemed to work. One diet that did work was the Kempner rice and fruit diet. Patients were instructed to eat nothing more than boiled rice and fruit, mainly prunes. It is doubtful whether many could tolerate the monotony for long.

There is a story that at St Mary’s Hospital a patient complained that there was a dead beetle in his rice. When told of this, his learned professor, Sir George Pickering, commented that it was all right as long as it was a salt-free beetle. One hopes he was joking.

As dull as the diet was, it was clear that salt restriction did lower blood pressure, and it remains an integral part



Early attempts to treat high blood pressure

- Calcium salts with atropine
- Five grains of blue pill and saline draft
- Trunck’s solution, which contained sodium chloride (salt!), sodium sulphate, sodium bicarbonate and potassium sulphate



of hypertension prevention and treatment today.

The first blood pressure medicines

A breakthrough was clearly needed, and this came in 1952 in the form of chlorothiazide, the first of the thiazide-type diuretics. They work by stimulating the kidneys to remove salt and water from the body. They are rarely powerful enough to control blood pressure alone and are mainly used with other drugs, so, more powerful drugs were needed.

It was known that the surgical removal of the autonomic ganglia (nerves) on each side of the spine lowered blood pressure, and this operation had been used in desperation to treat very severe hypertension. These nerves control the involuntary muscles in the small blood vessels and intestines.

“...the greatest danger to a man with a high blood pressure lies in its discovery, because then some fool is certain to try to reduce it.”

In times of “fight or flight” they reduce blood flow to the intestines, diverting blood to the muscles of the arms and legs, raising blood pressure. After food, they do the reverse.

The principle of blocking the autonomic ganglia made sense, but a simple drug was needed to replace such an extreme operation.

The first oral ganglion-blocking drug was pentolinium. It did lower blood pressure but had the unfortunate side-effects of blocking all autonomic nerves,



- Oil of thyme
- Benzyl benzoate
- Garlic
- Dilute hydrochloric acid
- Effervescent baths
- Take the waters at Harrogate, Cheltenham or Leamington Spa

All these treatments have been recommended in various parts of the world, they were surely ineffective.

causing dry mouth, dry eyes, blurred vision, constipation, urine retention and, in men, impotence.

There was a joke at the time of a worried patient asking for information:

“Will this treatment make me live longer, Doctor?”

“Possibly, but it will certainly seem longer.”

However, these drugs did save lives in people with very severe hypertension. In the mid-1950s, even though there were no formal trials to see how well the drugs worked, many case studies were published showing that they had positive effects on kidney function, eye damage, stroke and heart failure, and saved lives. It was unethical to withhold them in patients who otherwise would be dead within a few years, so no trial was done.

The Ganglion blocking drugs

- Hexamethonium
- Mecamylamine
- Pempidine
- Pentolinium

All were intolerable but they did save lives.

At St Mary’s Hospital a patient complained that there was a dead beetle in his rice. When told of this, his learned professor, Sir George Pickering, commented that it was all right as long as it was a salt-free beetle.

But is it worthwhile to treat less severe hypertension?

The next question was whether antihypertensive drugs were worth using in patients with less severe hypertension – around 120mmHg – who were not (yet) clinically unwell. Would it prevent strokes and heart failure?

The first trial, now largely forgotten, was published in 1964 in Chelmsford, Essex, by Dr Michael Hamilton. Hamilton opted to prescribe active treatment (pempidine) to half of his patients and just monitored the others carefully. Nowadays we would prefer to give them a placebo (a dummy drug) so that they would not know whether they were receiving the real treatment or not, making the results more reliable. Hamilton told me that there was no point in a placebo group as everyone knew if they were on the active treatment as they felt so awful.

There were 61 patients in Hamilton’s trial, and in both men and women there were significantly fewer strokes if their blood pressure was reduced. This was the only trial to include women until 1980.

The resistance to giving treatment in milder cases remained

In 1963, when I was a third-year student at The London Hospital, the consultant physician to whom I was attached declared that there was “no evidence that antihypertensive drugs are of any value and none of my patients are to be given them”. There was a rumour that his patients had two treatment cards: one listed the drugs he thought the patients were receiving, and the other the drugs they were actually being given. I can’t vouch for this scurrilous allegation.

The results of Hamilton’s study were later confirmed in a larger trial called the US Veterans Administration (VA) trial in 1967,

and later in the 1970 VA trial in milder patients. Strokes and heart failure were being prevented. Heart attacks were too, to a lesser extent. The men in the studies had been given free cigarettes in their “rations” during their military service which may explain why the effects in heart attack prevention weren’t stronger.

No further studies investigated the value of treating milder hypertension until two Australian and British trials in 1980 and 1985. Why the delay? Well, mild hypertension is very common, and from a population point of view, is a major cause of heart disease and strokes, but because the personal risk is low, many patients will not suffer the consequences

even if they receive no treatment. So, to prove that treatment is worthwhile, large numbers of patients have to be studied over several years. Such trials are consequently very expensive.

A study known as the MRC trial required 17,000 patients to be followed up for five years. In 1985, this finally proved the benefit of treating mild hypertension (with diastolic readings of 90-109mmHg).

Should older people with hypertension be treated?

The next question was the issue of hypertension in the elderly. Older people are at higher risk of strokes, heart attack and heart failure, so reducing blood pressure would, in theory, be useful. But there was always the concern that it might be harmful.

As late as 1982, when I was lecturing at Birmingham University, I commented that I thought that lowering blood pressure in older

patients might be very worthwhile. A member of the audience, a well-known professor, jumped up and interrupted me, shouting:

“No, no, you must not say that, old people need their raised pressure to perfuse their brains. Lowering pressure could reduce blood flow and cause falls, mental confusion and strokes.”

We now know that he could not have been more wrong. Careful blood pressure reduction does

greatly reduce the risk of heart disease and strokes in older people, including those over 80.

The first European trial looking at older people, published in 1986, included 840 men and women over the age of 60, with diastolic pressures

of 90 to 119mmHg. The trial was positive. Those who were given a thiazide diuretic had a 32% reduction in stroke deaths and a 38% reduction in deaths due to heart disease compared to those given a placebo. Above all, there was no evidence of harm. This reassured at least some of the doubters, and the results were backed up by another study in Bollington, Cheshire that same year.

In the 1990s, a US and an Anglo-European study both clearly showed that lowering blood pressure in older people with raised systolic blood pressure lowered the risk of stroke. But still the doubters persisted in publishing articles in the newspapers distorting the published research and telling dodgy anecdotes about a lady from Neasden who suffered “as a result of” drug therapy or some such.

What is almost certainly the last trial comparing active treatment versus placebo was published in 2008. This was the UK-based Hypertension in the

Very Elderly Trial. 3,845 patients with hypertension, who were over the age of 80, were randomly allocated to treatment with a thiazide-like diuretic called indapamide, or to placebo tablets. If necessary enalapril was added. The results were spectacular. After five years there was a 30% reduction in strokes, a 64% reduction in heart failure and a 23% reduction in deaths from disease of the heart and blood vessels.

The end of an era

This trial represents the end of an era. We now know that blood pressure reduction is validated in women and men of all ages and our drugs are very tolerable. There remain, however, a great many unanswered questions. More long-term trials are necessary, but they will need to be large, very expensive and difficult to carry out.

Unanswered questions

- How low should we lower blood pressure?
- How should we manage hypertension in people who also have diabetes or kidney disease?
- How useful is blood pressure reduction in children and adolescents?
- Does blood pressure lowering reduce dementia?
- What will be the role of any new class of antihypertensive drugs?
- How do we deliver our validated treatment to the millions of people with hypertension?
- Can we prevent hypertension in the first place?

Professor Gareth Beevers is a Trustee and Medical Advisor for Blood Pressure UK. He is Emeritus Professor of Medicine, University of Birmingham and retired consultant physician, City Hospital, Birmingham.

The results were spectacular. After five years there was a 30% reduction in strokes, a 64% reduction in heart failure and a 23% reduction in deaths from disease of the heart and blood vessels.



Modern medicine – much more scientific than in Hamilton's days.

How progress is made in medicine

Up until the 1960s, medical knowledge came from textbooks and the opinions of teaching hospital consultants, who were treated like gods. What they said was true and woe betide any junior doctor or student who dared to query their edicts. Those days are now gone.

Nowadays we demand very high-quality trials done under strict conditions, known as randomised

controlled trials. Each patient has a random chance of receiving active treatment or dummy (placebo) tablets. Alternatively, patients may be randomly allocated to one treatment versus another. Preferably, such trials are “double blind” so that neither the patient nor the nurse or doctor knows who is getting the real treatment. Only the scientists behind the scenes know who is receiving

what and what the results are – making the results more reliable. Ethics committees oversee the whole operation, and huge amounts of information are collected and analysed by medical statisticians.

All too often the didactic opinions of the great and the good are shown to be incorrect. We now rely on evidence-based medicine, and thank goodness for that.

A tribute to Dr Michael Hamilton OBE

In November 2019, as this review was being finalised, I heard the sad news that Michael Hamilton died at the age of 96. He had already seen my first draft and had corrected the anecdote about the salt-free beetle. I had thought it was a cockroach.

Michael was the last of a group of able men who worked under Sir George Pickering at St Mary's. He conducted the trial described here, and was responsible for major studies looking into the treatment of heart attacks, and the value of blood pressure lowering following a stroke.

Michael must also be revered for the support he gave to his junior staff. I was one of four he sent on the Medical Research Council in Glasgow, and many more of his registrars went on to prestigious centres as well.



Hamilton, possibly telling one of his famous anecdotes.

Let's have a garden picnic!

Make a date to share a picnic with your friends on a video-calling app like skype, zoom, or social distanced outside.

Put down the salami and step away from the ham sandwiches. Whether you're staying home or venturing out to the park, this summer, rustle up a fabulous and healthy spread. These ideas are adaptable to whatever you have to hand. So, dust off your blanket and let's have a garden picnic, or even a carpet picnic.

VEGETABLE CRUDITÉS

Slice up whatever summer vegetables you have into sticks and serve with your pick of these delicious dips. Choose from cucumber, carrot and peppers. Baby sweetcorn, mange tout, cherry tomatoes and radishes are also ideal.

These are a much healthier and more colourful option than savoury snacks such as bread sticks or crisps.

BROAD BEAN DIP

Broad beans make for a wonderful summery dip to go with your crudités. Start by choosing olive oil or crème fraîche to mix with the broad beans, then mix with flavours of your choice.

Ingredients, serves 4

- 250g broad beans (out of their green pods), fresh, frozen or tinned

For the olive oil option

- 2 tbsp olive oil
- 1 tbsp lemon or lime juice or more to taste
- 1 tbsp water to loosen
- 1 tsp cumin powder
- ½ tsp paprika
- Black pepper
- Pinch of chilli (optional)

For the crème fraîche option

- 4 tbsp low fat crème fraîche
- 1 tbsp lemon or lime juice or more to taste
- 1 tbsp chopped mint or another herb like dill
- 1 tsp cumin
- Pinch of chilli or paprika (optional)

Method

Boil the beans for about five minutes or until tender. Drain and refresh them



under the cold tap. Blend them with the ingredients of your choice in a food processor or with a stick blender, but stop before it's completely smooth.

GUACAMOLE

This very simple dip goes down an absolute storm. The only essential ingredient is the avocado, fresh or frozen, you can vary the others depending on what you have.

Ingredients, serves 4

- 2 ripe avocados
- Half a small red onion, very finely chopped (white or spring onions will work too)
- A small ripe tomato, finely chopped
- 2 tbsp lemon or lime juice, fresh or bottled

- Handful chopped fresh coriander
- Black pepper
- Pinch of paprika, chilli or cayenne

Method

Mash the avocados with a fork until they are almost smooth but still have some texture. Then simply mix in everything else.

SOUR CREAM AND CHIVE DIP

There's no messing around with this simple dip, and making it yourself cuts down on the salt compared to buying one ready-made. Perfect.

Simply stir 2 tbsp of chopped chives into 150ml low fat sour cream. You can then vary it however you like, for example with chopped spring onions, a little grated garlic, a squeeze of lemon, or black pepper.

FRITTATA WITH SUMMER VEG

Frittatas are a lot like Spanish omelettes but you finish them off under the grill so they go a bit fluffy. You can use whatever vegetables you like. You can cook them fresh or use leftovers, and use a combination or just one type of veg. Green veg like courgettes, leeks, peas and broccoli are all wonderful, but you could also use peppers or squash for example. Add herbs for extra flavour and finish with a strongly-flavoured cheese if you like, such as blue cheese or mature cheddar.

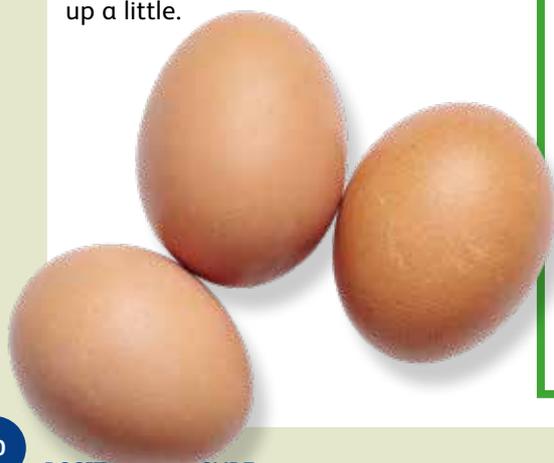
Ingredients

- 200-300g chopped veg (fresh, frozen or tinned without salt)
- 6 eggs
- A handful of fresh chopped parsley (or another herb, dried will do)
- Black pepper
- A little cheese of your choice (optional), chopped or crumbled

Method

If you are starting with raw vegetables, gently cook them with a little oil in a non-stick frying pan until cooked through and turning golden brown. If they are already cooked, simply warm them up.

Beat the eggs in a bowl and add the herbs and black pepper. Add the eggs to the pan and stir once to mix everything. Leave the pan over a medium-low heat until the egg is about half set but still runny on top. Sprinkle a little cheese on top for flavour, then finish cooking under the grill until it's all set. It will puff up a little.



EASY MARINATED CHICKEN

Create flavoursome and succulent chicken pieces by making your own marinade. Choose from yoghurt or olive oil as a starting point, then add flavours of your choice. There's no need to stick with the ones listed here, or even the quantities – experiment with what you have.

Marinated chicken is nice made in advance, so you can serve it cold for your picnic.

Ingredients, serves 2-4

- 4 chicken breasts or other pieces of chicken with the skin removed

For the olive oil marinade option

- 2 tbsp olive oil
- 1 tbsp lemon or lime juice (fresh or bottled)
- 1 clove garlic, finely chopped
- ½ tsp each of sage, thyme and parsley (or other herbs)
- Pinch of ground chilli or cayenne pepper (optional)
- Black pepper

For the yoghurt marinade option

- 3 tbsp low fat natural or Greek yoghurt or crème fraiche
- 1 tbsp lemon or lime juice (fresh or bottled)
- ½ tsp turmeric
- 1 tsp each of cumin and coriander
- Pinch of ground chilli or cayenne pepper (optional)
- Black pepper
- You could also try garam masala or ginger



TIP

You could make chicken skewers instead if you have some kebab sticks, or cut the chicken into strips before adding the marinade and reduce the cooking time. You can also grill if you prefer.

Method

Mix together the marinade ingredients. Make small slices in the chicken breasts so that the marinade has more surface area to cover, then coat with the marinade. Leave them in a covered bowl or a sealable bag in the fridge for at least an hour or overnight.

Preheat the oven to 200C/180C fan/gas 6. Roast the chicken on a baking tray or roasting dish for 20-25 mins for breast pieces, or 30-40 for thighs and drumsticks, until cooked through. Check by poking a knife or skewer into the centre to make sure the juices run clear.

Leave to cool and store in the fridge. If you're using breast pieces, slice them when you're ready to serve.

POPCORN

Popcorn can be super healthy or super salty, fatty or sugary depending on how you cook it and coat it. For a healthy option, buy uncoated popping corn online or from health food stores – just search for ‘popping corn’ – and ‘pop’ them in a pan. You don’t even need any oil – it’s called air-popping.

You’ll need a nonstick pan with a tightly fitting lid. Heat the pan over a medium heat (not high), add the corn and heat with the lid on. The trick is to shake the pan every few

seconds so the kernels at the bottom don’t burn. Heat for a few minutes and enjoy the popping.

Serve with a sprinkling of chilli, cinnamon, or a little LoSalt – which is a healthier, low sodium alternative to salt (page 22).

SHOP BOUGHT POPCORN

If you would rather choose a readymade option, just check the labels and choose a low salt option. You can get them with less than 0.2g salt per serving.



TIP
Use your popping corn fairly soon after buying because older corn kernels don't pop so well.

CHERRY AND COCONUT BLISS BALLS

These fruity treats are a fun and healthy way to satisfy your sweet tooth, and they’re also easy to make. They’re a bit like breakfast bars so you can have them as snacks too.

Ingredients, makes about 12

- 150g frozen cherries or other summer fruits, just thawed
- 150g rolled oats or muesli
- 2 tbsp honey or maple syrup
- 1 tbsp chia seeds
- 50g desiccated coconut, plus extra for coating

Method

Simply whizz everything together in a food processor or with a stick blender. Put the mixture in a container in the fridge to set for a few hours. Then take small handfuls, about a tablespoon, and shape them into little balls. Roll them in the extra coconut on a plate for decoration. And that’s it!

TIP
You’ll find chia seeds in the supermarket with the other seeds. They work like an egg in binding things together.

SUMMER FRUITS DIPPED IN CHOCOLATE

You could simply serve some attractive-looking fruit for your picnic, but you can easily make it a bit special by dipping some in dark chocolate. Try it with fresh strawberries, fresh or dried apricots, apple slices (dipped in lemon juice) or nuts like Brazil nuts.

Simply melt some dark chocolate gently in the microwave or in a glass bowl over a pan of simmering water. Remove the bowl from the heat. Dip the fruit pieces into the chocolate and place on some greaseproof paper, then place in the fridge to set. Alternatively, you could stick cocktail sticks into the fruit pieces so that you can spike them into a potato to dry – no mess!

AND TO DRINK...

Go for a glass of beetroot juice or a chilled green tea, as this could even help with your blood pressure.

TIP
Roll the chocolate-coated fruit in finely chopped nuts while the chocolate is still melted for extra wow factor.



LoSalt, the UK's leading reduced sodium salt, are encouraging people to #SeasonWithSense when it comes to home cooking and have developed this tasty vegetarian, low fat, low sodium Beetroot Bourguignon.



Advice from Harriet Smith, registered dietitian and advisor to LoSalt

Beetroot is an ideal food to include in your diet for healthy blood pressure. Harriet Smith, LoSalt advisor highlights: "There is a growing body of research which suggests eating beetroot can help widen our blood vessels, which in turn may lead to a reduction in blood pressure. This is because beetroots, along with certain root vegetables (i.e. turnips) and green leafy vegetables (i.e. lettuce or spinach), are rich in compounds called nitrates. The body converts nitrates from food into nitric oxide, which dilates (widens) our blood vessels. Beetroots are also a good source of important vitamins and minerals such as vitamin C, folate, iron. An 80g portion of beetroot (or 150ml beetroot juice) counts as one of your 5-a-day for fruit and vegetables."

BEETROOT BOURGUIGNON



Serves: 4



Prep: 15 mins



Cook: 40-45 mins

INGREDIENTS:

- 1 tbsp oil
- 1 onion, chopped (180g)
- 1 carrot, sliced (180g)
- 1 leek, thickly sliced (170g)
- 1 bunch raw beetroot, approx. 600g, peeled and diced
- 3 sprigs thyme, plus extra for garnish
- 150ml red wine
- 1 very low salt organic vegetable stock cube
- 400g can chopped tomatoes
- ½ tsp LoSalt

METHOD:

Heat the oil in a large saucepan and fry the onion, carrot, leek, beetroot and thyme for 10 minutes, covered. Stir in the wine and cook until reduced by half. Dissolve the stock cube in 300ml boiling water.

Add the tomatoes, stock and LoSalt and season with black pepper. Cover and simmer for 40-45 minutes, stirring occasionally until tender. Serve with mash or rice sprinkled with extra thyme leaves.

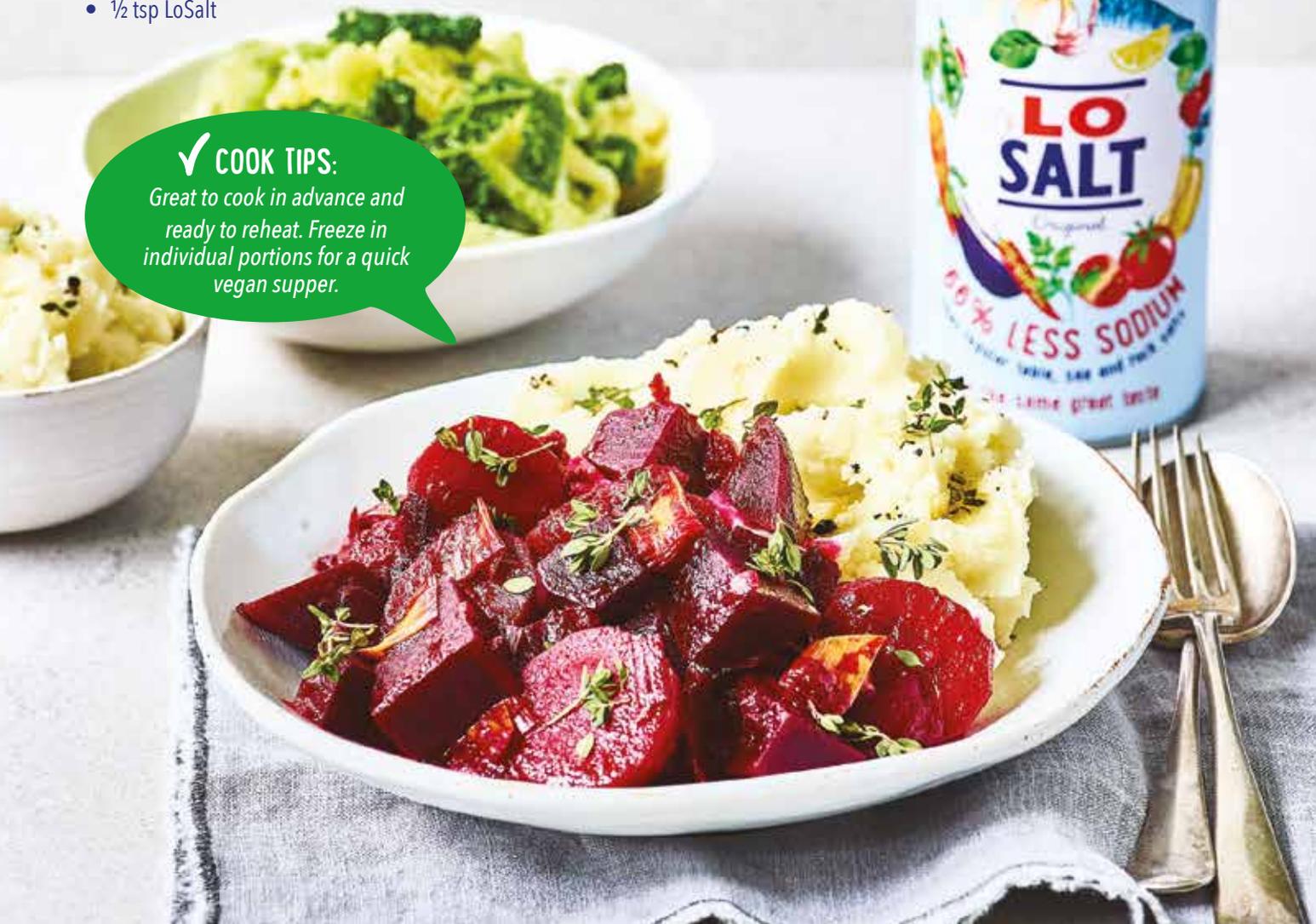
INSPIRATION:

For more simple, healthy meals, please visit our new look website: www.losalt.com



✓ COOK TIPS:

Great to cook in advance and ready to reheat. Freeze in individual portions for a quick vegan supper.



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

A lasting way to help others with high blood pressure

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



Blood Pressure UK

Helping you to lower your blood pressure

Blood Pressure UK is here to help. With our information packs, range of leaflets and our helpline, we provide reassurance and support to those who need it. All of this work is expensive, and while membership subscriptions and donations help enormously, leaving a gift in your Will can help us make a bigger difference.

Leaving a gift isn't as complicated as you might think. It doesn't have to be a large amount, and it will give you the assurance that our work will continue long into the future.

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

We have put together a simple leaflet to guide you through the process. You can get a copy by telephoning (020) 7882 6255, visiting our website at www.bloodpressureuk.org or by writing to Blood Pressure UK, Wolfson Institute, Charterhouse Square, London, EC1M 6BQ.



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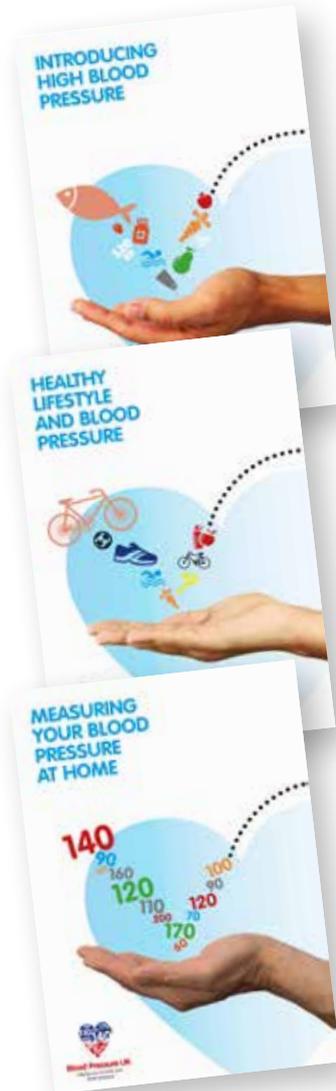
www.losalt.com



Information & publications

LOTTERY FUNDED

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 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.

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.



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.

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.



With great thanks to the Big Lottery Fund, we have been able to translate our award-winning 'Introducing high blood pressure' leaflet into 32 languages. They are all available to download from our website only.



Blood Pressure UK

Helping you to lower your blood pressure

Our full range of resources includes 'Love your heart: a South Asian guide to controlling your blood pressure' and factsheets on all the common blood pressure medicines.

All these publications are free to Blood Pressure UK members. Visit www.bloodpressureuk.org for your copy.