

Pathways

Price £ 5.00 (Free to members)

The newsletter of Leger ME/CFS Supporting Myalgic Encephalopathy or Encephalomyelitis (ME), Chronic Fatigue Syndrome (CFS), Post Viral Fatigue Syndrome (PVFS), Fibromyalgia Syndrome (FMS), Patients & Carers

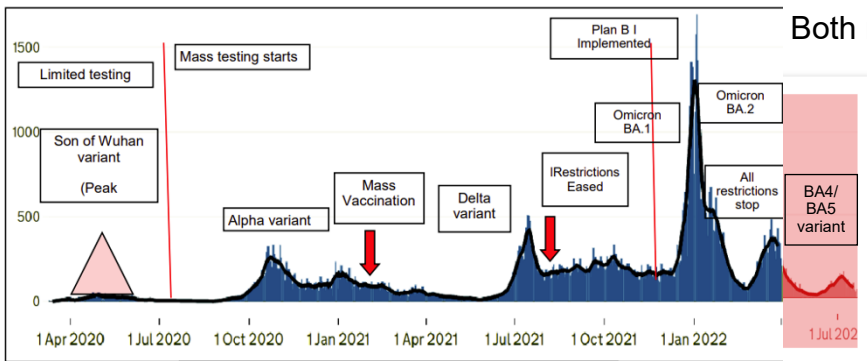
Welcome to Pathways No 72. Summer 2022 Edition.

A BDA diet for Long Covid Fatigue Syndrome



Cruising Derwentwater on a launch, See page 21

Doncaster Coronavirus Report



Both nationally and locally COVID rates are going up, with the current rate in Doncaster being almost 128 infections per 100,000 people. The red graph extension is the performance since Pathways 71. It is good that the rate is starting to fall but it is clear that as we spend more time attending events and activities over the summer we need to remember that COVID is still around. With this in mind we should

continue to protect ourselves and others by staying at home if we have symptoms or test positive, and not visiting healthcare facilities or vulnerable friends and family if we have COVID or, a possibility of having COVID.

There are simple things we can do in our daily life that will help reduce the spread of coronavirus and other respiratory infections, as well as protecting those at high risk. These include:

- Getting vaccinated
- Letting fresh air in if meeting others indoors.
- Practicing good hygiene.
- Wearing a face covering or a face mask in crowded, enclosed spaces.

Please remember that if you are visiting a hospital, you are required to wear an appropriate face covering. This rule also applies to our own group meetings.

If you're planning to travel abroad this summer, some countries may still have COVID restrictions. You can check travel requirements on vendors the website.

Practicing hands, face and space as well as reducing your contacts on the lead up to any travel can help to avoid being unwell on holiday or being unable to go.

The Leger ME Facebook Group By Sandra Brown.

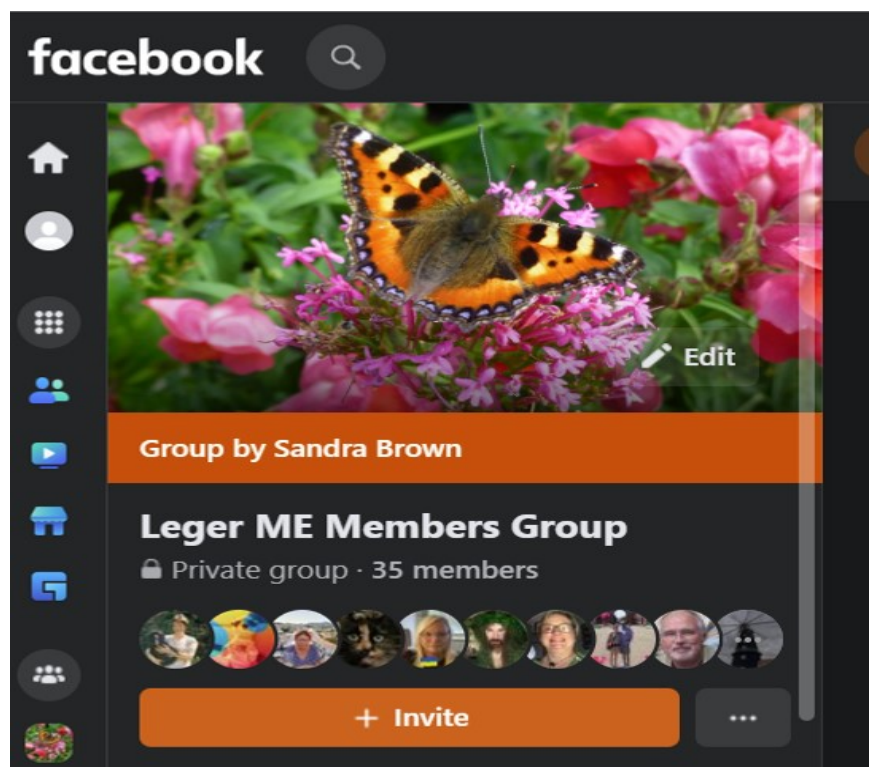
The Leger ME members Facebook Group is a private group for Leger ME members and invited guests. This is your social media site helping to support sufferers of ME/CFS/FMS/LCS and their carers.

If you wish to joined please contact the Leger ME by email office for further details. [Email: mike@danum.me.uk](mailto:mike@danum.me.uk)

If you join, you will find support, friendship, jokes, gardening tips, pets, hobbies and much more. There is always someone around, you will never be alone and there will always be someone with an answer, or who can help you find an answer.

Hoping to see you there!

Sandra



You Write In:

John Writes: *I am really worried about the recent hot weather which I found very debilitating and it increased my fatigue massively. I keep hearing about global warming, and wild fires in other countries. Is this really happening and will it continue ?*

Yes, and yes, very much so. We, in the UK, are an island nation. Our weather is very variable and is mainly dependent on which direction the wind blows. At school in geography we learned of Warm Wet Westerlies, and names such as like Beast from the East have recently emerged.

The UK is at the meeting point of several different types of weather from different directions. There are at least five main air masses that affect the UK. These are polar continental, arctic maritime, polar maritime, tropical maritime and tropical continental. Each brings unique weather to the UK. These are shown in the picture to the right. Due to global warming, there will be more energy within weather systems, and whatever the weather, it will be more extreme.

With reference to global warming, there is no doubt that it is true. Most of it is blamed on post industrialisation production of carbon dioxide which is a greenhouse gas. Methane is also a greenhouse gas, which is naturally produced from rotting vegetation and ruminating animals like cattle. While great political efforts are being made to reduce greenhouse gasses - this is something within our control as a population.

However, global warming is also dependent on things outside our control like solar activity. The sun has a 16 years activity cycle. The Earth has a natural cycle of precession where at least three cyclical changes affect our distance from the sun over hundreds of years and thousands of years. We are also told about ice ages at school. In Roman times, there was a warm period which enabled grapes to be grown in England as has been like what is happening recently. In the 1600's there are instances of the big rivers e.g. The Thames freezing over in winter. Reliable weather records only became available in the early 1800's. So what is new ?

Ben Writes: *On my usual repeat prescription for vitamin D3 on the label there was a message saying that I would have to buy them as an over the counter purchase in future. I understand that other Leger ME members are still receiving these on a prescription. Do you have any thoughts on the matter ?.*

Firstly, we find that almost all our members have vitamin D3 deficiency. We recommend that our members all have the vitamins D3 levels checked by their doctor as a matter of routine. The vast majority of the results come back as low or very low. We also know that when these people take vitamin D3 as a supplement where levels are low it reduces fatigue, brain fog and pain. Every doctor I know who seriously deals with ME/CFS cases checks D3 levels, and prescribe if necessary.

With NHS cutbacks and a general GP shortage, the NHS is looking at cutting off what it sees as unnecessary foods supplement. However in the case if ME/CFS (and MS), I think they are wrong to do this. It is *"throwing the baby out with the bath water"*.



A painting of the Thames Winter Fayre in the frozen river in midwinter around 1600. The old London bridge is visible in the back ground.

The latest NICE guidelines on ME/CFS are: Myalgic encephalomyelitis (or encephalopathy)/chronic fatigue syndrome: diagnosis and management (NG206)

And the following section is relevant

1.12.23 Be aware that people with ME/CFS may be at risk of vitamin D deficiency, especially those who are housebound or bedbound.

NICE have produced advice on vitamin D supplementation in their Public health guideline [PH56] Vitamin D: supplement use in specific population groups.

My view is that your doctors surgery are wrong. They are wrong to just cut you off without checking whether it is necessary or not. They should have checked your D3 levels first.

My advice is that you need to discuss this with your doctor and let me know the outcome. In the meantime, you can buy Vitamin D3 capsules 800 -1000 units from the various suppliers. One local supplier has been selling these for less the £2.00 for a months supply. If you want your D3 levels checking privately it costs £30-40.

Carolyn writes: *I have a top tip for temporary blackout blinds during heatwave conditions. Get two full length black bin bags and spread one out on a table top. Then place a second bin bag on top of the first one. Check the length and width of your door window to be sure the whole of the window is covered, then using Sellotape, tape them together to get the correct fit. Put a length of Sellotape across the top of the bin bags leaving enough at the top and either end to attach to the door. Put a small piece of Sellotape in the centre at the bottom of the bin bag to make sure the overall fit is good.*

Cost, nothing as the bin bags were already in the house as was the Sellotape. Efficiency, excellent, did a really good job in keeping three areas of the bungalow much cooler. Please note you could use duck tape but it might be harder to get off the door again without leaving marks.



Bin bags, not very elegant, but very effective

Heat from the sun is carried in the form of electromagnetic radiation, as a form of infra red light, most of which is invisible to our eye. We only feel this type of heat what it falls on our bodies or heats up an object it strikes. Going back to school physics, white objects reflect heat while black objects adsorb heat. That is why summer clothes are light and winter clothes are darker.

All I can say is that the bin bag blinds were very effective. When the temperature was 40°C outside the inside was a cool 30°C. Because the bin bags were black, they became too hot to touch and had to be left to cool overnight before they were removed.

Carol Writes: *I've been a school teacher for many years, and I am now 58. About ten years ago I got ME/CFS. I've been through the Sheffield ME/CFS clinic, and tried to return to teaching many times, but subsequently relapsed. Things are getting very tentative with my employers, and I've a feeling I'm being leaned on to resign. Have you any ideas about what I can do next ?*

What you are describing is relapse and remitting ME/CFS. In our experience this sort of start and stop strategy never works in the workplace and it is in your best interest to take time out.

Firstly, **you should not resign your job under any circumstances.** You could loose a lot of money from the state and private sector pensions. You need to take professional advice from your union and financial advisers regarding your early payment of pension options. Secondly, it is not in your health's interest to be working with children because they are carriers of Covid. We have several people whose ME/CFS has been made permanently worse after a mild Covid infection, possibly permanently. Thirdly, contact us for a Case Review and for help with your ME/CFS and what to do next.

Avoiding Dehydration Heat Exhaustion and Heat Stroke in hot weather.

During recent weeks the temperature has risen beyond all expectation. The temperature peaked over 40°C in Lincolnshire, and Doncaster was not far behind. The problem is that when the air temperature gets higher than our body temperature, it tends to heat us up. Fortunately, we have a strategy - and that is sweating. By sweating we use the latent heat of evaporation of water to cool us which works effectively. In order for that to happen, firstly you need enough water for your body to sweat, and secondly you need to be able to sweat. Some people have lost the ability to sweat and so cannot regulate their body temperature and can over heat with dire consequences. The sweat is produced via the autonomic nervous system which is innervated by cholinergic fibres. If these fibres are damaged as in some neurological disease or, if the person is taking an anticholinergic medicine, then this mechanism is compromised. In the case of ME/CFS people are more prone because to make sweat they need energy, which is always in short supply. Here is the NHS advice on how to deal with the problems.

Dehydration

Dehydration means your body loses more fluids than you take in. If it's not treated, it can get worse and become a serious problem. This is especially important for babies, children and the elderly are more at risk of dehydration.. You can become more easily dehydrated if you have:

- diabetes
- vomiting or diarrhoea
- been in the sun too long (heatstroke)
- drunk too much alcohol
- sweated too much after exercising
- a high temperature of 38C or more
- been taking medicines that make you pee more (diuretics)

Symptoms of dehydration include

Feeling thirsty
dark yellow and strong-smelling pee
feeling dizzy or lightheaded
feeling tired
a dry mouth, lips and eyes
peeing little, and fewer than 4 times a day

You can reduce the risk of dehydration by drinking fluids. If you find it hard to drink because you feel sick or have been sick, start with small sips and then gradually drink more.

Heat exhaustion.

Heat exhaustion is not usually serious if you can cool down within 30 minutes. If it turns into heatstroke, it needs to be treated as an emergency. If someone is showing signs of heat exhaustion, they need to be cooled down. Things you can do to cool someone down. If someone has heat exhaustion, follow these steps:

- Move them to a cool place.
- Get them to lie down and raise their feet slightly.
- Get them to drink plenty of water. Sports or rehydration drinks are OK.
- Cool their skin – spray or sponge them with cool water and fan them.
- Cold packs around the armpits or neck are good, too.
- Stay with them until they're better.

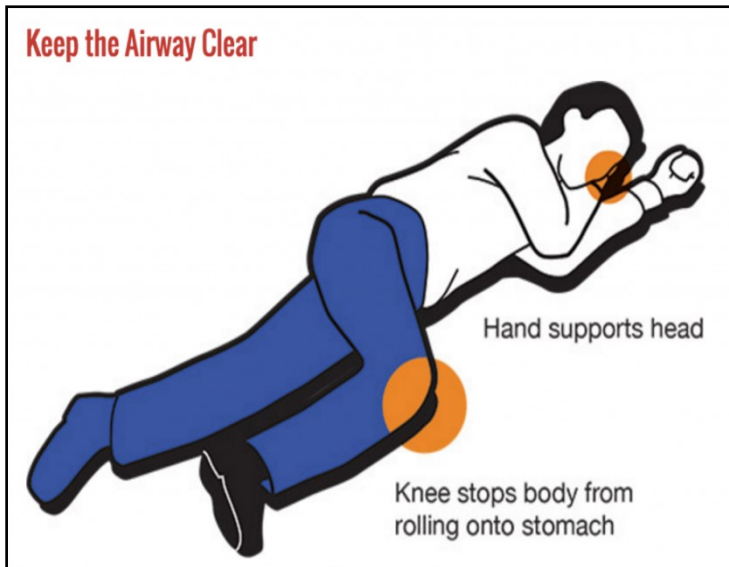
Signs of heat exhaustion include:

A headache
dizziness and confusion
loss of appetite and feeling sick
excessive sweating and pale, clammy skin
cramps in the arms, legs and stomach
fast breathing or fast pulse
a high temperature of 38C or above
being very thirsty
The symptoms are often the same in adults and children, although children may become floppy and sleepy.

**People with heat exhaustion should start to cool down and feel better within 30 minutes.
If not they may have heat stroke.**

Heat Stroke

Immediate action is required. Call 999. Put the person in the recovery position if they lose consciousness while you're waiting for help and keep cool if possible



Symptoms of Heat Stroke

Fast breathing or shortness of breath
 a fit or (seizure)
 loss of consciousness
 not responsive
 feeling unwell after 30 minutes of resting in a cool place and drinking plenty of water
 not sweating even while feeling too hot
 a high temperature of 38C or above
 feeling confused

Heatstroke can be very serious if not treated quickly.

Preventing heat exhaustion and heat stroke

There's a high risk of heat exhaustion or heatstroke during hot weather or exercise. To help prevent heat exhaustion or heatstroke:

- drink plenty of cold drinks, especially when exercising
- take cool baths or showers
- wear light-coloured, loose clothing
- sprinkle water over skin or clothes
- avoid the sun between 11am and 3pm
- avoid excess alcohol
- avoid extreme exercise

This will also prevent dehydration and help your body keep itself cool.

Keep an eye on children, the elderly and people with long-term health conditions (like diabetes or heart problems) because they're more at risk of heat exhaustion or heat stroke.

HEAT EXHAUSTION OR HEAT STROKE?

HEAT EXHAUSTION SYMPTOMS

1. Faint or dizzy
2. Excessive sweating
3. Cool, pale, clammy skin
4. Nausea, vomiting
5. Rapid, weak pulse
6. Muscle cramps

HOW TO TREAT IT

1. Move to cooler location
2. Drink water
3. Take a cool shower or use cold compresses

HEAT STROKE SYMPTOMS

1. Throbbing headache
2. No sweating
3. Body temp above **38°C**
Red, hot, dry skin
4. Nausea, vomiting
5. Rapid, strong pulse
6. May lose consciousness

HOW TO TREAT IT 999

1. Get emergency help
2. Keep cool until treated

ME/CFS and Politics Report Review: Rethinking ME.

A report by the All-Party Parliamentary Group on Myalgic Encephalomyelitis May 2022

**Introductions by Carol Monaghan,
MP for Glasgow North West**

Chair of the All-Party Parliamentary Group on Myalgic Encephalomyelitis

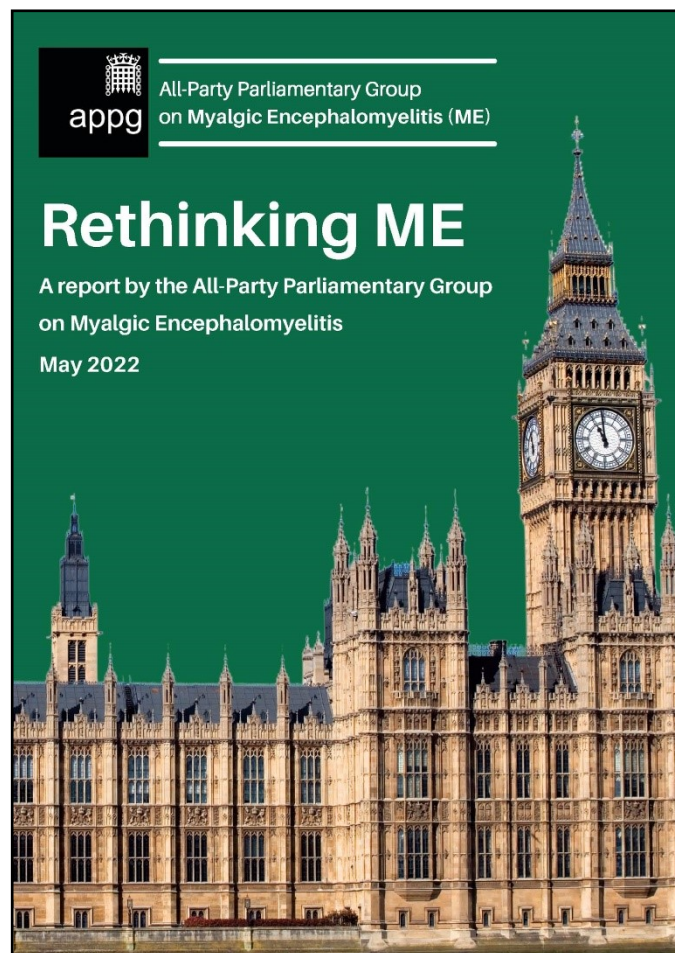
Although there is now a well-documented history of ME, progress in treatment has been hampered by a number of factors, including the outdated opinions of some influential psychiatrists and other healthcare professionals. Many people with ME have described the treatment they have received as exacerbating their symptoms, and some report such a decline in their health that they are now bed-bound following medical intervention.

Prior to my election in 2015, I had little knowledge of ME. If pressed, I would have given a basic response that it was a condition causing tiredness and lack of energy. The tenacity of my constituents in sharing their compelling testimonies ensured that my understanding was improved. Many other MPs have become involved in the APPG following similar interventions by their constituents, and I commend the ME community and charities on the work they have done in mobilising politicians from every political party to campaign for better outcomes.

Within healthcare, attitudes are slowly shifting, but it is clear that radical action, including mandatory education for relevant health professionals, is needed to ensure appropriate medical intervention and care. This must be coupled with far greater spending on high quality biomedical research. The new NICE guideline on ME/CFS, published in 2021, has the potential to transform approaches to ME, and patient groups and charities will be watching closely to see its impact.

The APPG on ME spent over a year taking evidence from patients, healthcare professionals and charities to produce this report. Our recommendations are considered the starting position for Government policy, and I hope these are taken seriously by those with the power to make positive change.

As far back as the 1930s, cases have been documented of individuals presenting with a spectrum of symptoms that have been difficult to attribute to a particular condition. For many of those affected, these symptoms - most notably, profound fatigue and pain, cognitive dysfunction, headaches and post-exertional



About the All-Party Parliamentary Group on Myalgic Encephalomyelitis (ME APPG)

Purpose:

To seek to improve health, social care, education and employment opportunities for people with ME and encourage biomedical research into the cause and treatment of ME.

APPG Officers:

Chair & Registered Contact: Carol Monaghan MP

Co-Chair: Baroness Finlay of Llandaff (recused)

Co-Chair: Baroness Scott of Needham Market

Co-Chair: Sharon Hodgson MP

Co-Chair: Stephen Metcalfe MP

Officer: Debbie Abrahams MP

Officer: Fleur Anderson MP

Officer: Dr James Davies MP

Officer: Ben Lake MP

Officer: Jason McCartney MP

Officer: Hywel Williams MP

APPG Secretariat:

Action for M.E.
The ME Association.

malaise - appeared after a viral infection. In the 1950's the term myalgic encephalomyelitis, or ME, was coined to describe this debilitating condition.

Foreword, Margaret Mar, Countess of Mar

Former member of the House of Lords and founder of Forward-ME

In 2006 I was a member of the Group on Scientific Research into Myalgic Encephalomyelitis (ME) when the late Dr Ian Gibson chaired an inquiry into the status of CFS/ME and research into causes and treatment. I have been saddened to read in this current report much the same as we heard and read from witnesses in 2006. There seemed to be little progress in 15 years. All is not lost, however.

Parliamentary interest and activity have increased considerably in the past three years thanks to the wholehearted interest of Carol Monaghan MP who has devoted much of her time to encouraging other MPs to come forward on behalf of those of their constituents who suffer from ME. Her active advocacy on behalf of people with ME has been remarkable. Under her leadership the APPG has been revitalised and people with ME are trusting her.

The Inquiry looked at 5 areas that are important to people with ME. Witnesses bore testament to the neglect that had persisted for years in biomedical research and research funding. They highlighted the absence of prompt and accurate diagnosis, the ineffectual and sometimes dangerous management of the illness with graded exercise therapy (GET).

As they heard, children and young people had a consistently raw deal which led to a loss of education and a social life. The biopsychosocial model of the illness has prevented many people with ME from obtaining welfare and health insurance-based benefits. The Report makes a number of very important action points that can no longer be ignored. It must not be left to gather dust as so many APPG reports do, for it makes an important contribution to the thrust of the new NICE guideline on ME/CFS in that the Report reinforces the guideline statements that ME is a physiological disease and people with ME should be listened to and respected. This is the time for a surge of progress and collaboration that must be to the benefit of all living with and working for ME.

APPG - Summary of Recommendations.

Executive summary

1) The UK and Devolved Governments must each conduct a comprehensive review of current ME service provision with a view to implementing the new NICE ME guideline recommendations in full and creating strategies to transform the approach towards ME in health, welfare, social care, research and education.

Chapter 1: Biomedical Research and Research Funding

1) The UK and Devolved Governments must each conduct a comprehensive review of current ME service provision with a view to implementing the new NICE ME guideline recommendations in full and creating strategies to transform the approach towards ME in health, welfare, social care, research and education.

2) Coordinated research strategies must be developed to encourage high quality ME research.

3) Government research bodies should ensure that there is a parity of biomedical funding between ME and other serious long-term conditions.

4) Centres of ME research excellence should be established to drive forward the development of effective treatments.

Chapter 2: Diagnosis, Symptom Management and Services

5) Health professionals should follow the new NICE guideline for ME and ensure that ME patients do not undergo any form of GET.

- 6)** Updated ME medical training should be provided by the Royal Colleges and medical schools to relevant health professionals and students.
- 7)** Health service commissioners should review the adequacy of current ME services and take steps to ensure that service provision is carefully planned, resourced, and implemented.
- 8)** People with severe and very severe ME should be provided with a care package based on the basic care principles detailed in the new NICE guideline.

Chapter 3: Children and Young People with ME

- 9)** Health commissioners should ensure that all children and adolescents with ME have access to correctly trained hospital paediatricians and long term community services.
- 10)** The Royal College of Paediatrics and Child Health (RCPCH) should ensure that all paediatricians receive specialised training on recognising, diagnosing and managing ME in children and adolescents.
- 11)** An independent second medical opinion obtained by a parent or guardian of a child with suspected or confirmed ME should be fairly considered in any decisions regarding diagnosis, treatment or welfare.
- 12)** The Chief Social Worker (or equivalent in the devolved nations) should ensure that the guide for social workers working with children and young people with ME or suspected ME (developed by social workers in partnership with Action for M.E.) is shared with all social care departments.
- 13)** Children and young people with ME should have a care plan, in accordance with national guidelines and/or statutory requirements, combining education and health.
- 14)** Schools, colleges and higher education institutions should make learning and assessment modifications for students with ME.

Chapter 4: Welfare and Health Insurance-based Benefits

- 15)** The Department for Work and Pensions (DWP) should ensure that people with ME have equitable access to welfare benefits by taking steps to (1) account for the impact of ME on the ability to engage with the application process and (2) minimise potential negative health effects associated with medical assessments.
- 16)** Health insurers should not require people with ME to undertake GET, CBT or health assessments that require levels of activity which could produce adverse health effects.

Chapter 5: COVID-19 and the ME Community

- 17)** Long-term health planning should consider the high number of individuals experiencing long COVID following a COVID-19 infection.
- 18)** Health service commissioners should ensure that there is cooperation ME and long COVID clinics to maximise patient benefit.
- 19)** Long COVID research projects should include ME patients as a comparative group.
- 20)** Further publicly funded biomedical and clinical research should be commissioned to investigate and compare a range of post-viral conditions, including ME.

You can download a copy from the following web reference:

<https://appgme.co.uk/wp-content/uploads/2022/05/Rethinking-ME-a-report-by-the-APPG-on-ME-2022.pdf>

Recipe Corner

With thanks to Jayne at the Linney Centre

Sweet and Sour Pork ((Serves 2))

Cooking Method

1. Using a non-stick pan, gently dry fry the Pork, Garlic and spring onion in (20-35mls) 1-2 tablespoons of water until browned. Add the peppers, mushrooms and grated ginger. Cook gently for about 5 minutes.
2. Blend ½ tablespoon of Cornflour with a little water to make a smooth paste. Add 1 tablespoon of tomato ketchup, 1 tablespoon of soy sauce, ½ tablespoon of vinegar and the tin of pineapple chunks including the juice.
3. Pour the sauce mix over the meat and vegetables. Cook for 5-10 minutes stirring gently until the sauce begins to thicken and the meat is cooked through.
4. Serve with boiled rice, couscous or noodles and mixed vegetables

Vegetable Lasagna (Serves 2)

Cooking Method

1. Pre-heat the oven to 180oC, 350oF, Gas mark 4.
2. Cook the lentils in a large pan of boiling water according to the manufacturer's instructions (don't add any salt), drain and set aside.
3. Meanwhile, using a non-stick pan gently fry the onion, garlic, peppers and mushrooms in 20-35ml (1-2 Tablespoons) of water until softened. Add the chopped tomatoes and 15ml (1 Tablespoons) of tomato puree. Cook gently for 5-8 minutes. Then stir in the cooked lentils and season with mixed herbs and black pepper to taste. Remove from the heat.
4. Mix 15ml (1 Tablespoons) of corn flour with a little milk to make a smooth paste. Heat the remaining milk in a pan and add the corn flour paste. Stir continuously until the sauce begins to thicken then remove from the heat.
5. Place a layer of lentil and tomato sauce on the bottom of an oven proof dish. Then add a layer of white sauce and lasagna sheets. Continue until finishing with a layer of sauce. Sprinkle the top with grated cheese then bake in the oven for about 20 minutes or until golden brown. Serve with a crisp green salad.



Ingredients

- ½ lb (225g) Pork cut into small cubes, any visible fat removed
- 1 clove garlic, crushed. ½ inch (1.25cm)
- Root ginger, grated
- 4 Spring onions ½ Green pepper, de-seeded and sliced
- 4 Mushrooms, sliced Small tin (200g) Pineapple chunks in juice
- 1 tablespoon soy sauce ½ tablespoon vinegar
- 1 tablespoon tomato Ketchup ½ tablespoon Cornflour



Ingredients

- 100g (4oz) Red lentils
- 50g (2oz) Mushrooms, sliced
- 50g (2oz) mixed frozen peppers
- 1 Clove of garlic, peeled and crushed
- 1 Onion, peeled and finely chopped
- 1 x 200g (1 Large) Tin of chopped tomatoes
- 15ml (1 Tablespoons) Tomato puree
- 300ml (10floz) Semi-skimmed milk
- 25g (1oz) Mature cheddar, grated
- 5ml (1teaspoon) Mixed dried herbs
- 15ml (1 Tablespoons) Corn flour
- Black pepper to taste
- Lasagne sheets

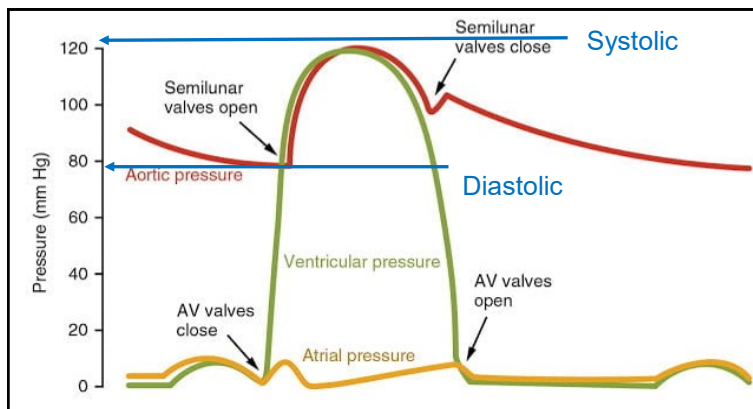
ME/CFS, Blood Pressure & Treatments

With thanks to Dr S Myhill for the main text.

Blood pressure is necessary for blood to circulate round the body. Too little pressure causes fatigue. Low blood pressure in this country is usually a cause for congratulation by the medical profession when for some people it makes them feel awful!

Blood pressure is created as a combination of three factors, in order of importance:

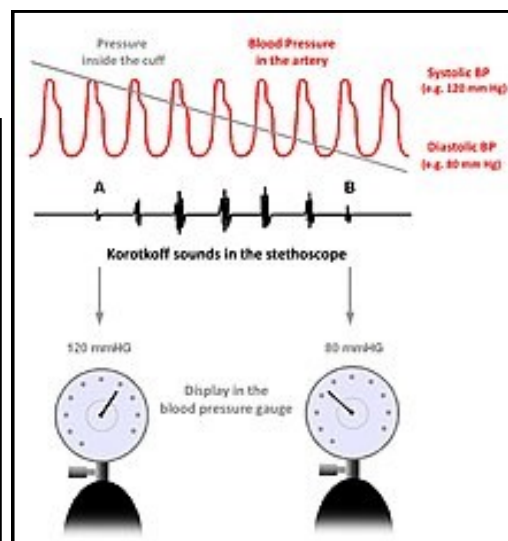
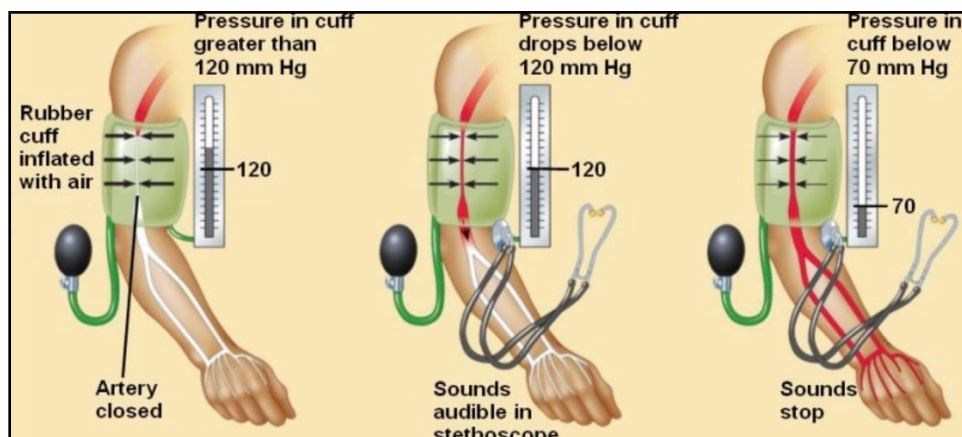
- 1) Peripheral resistance - i.e. how open are the arteries and smaller blood vessels?
- 2) The output of the heart. The heart is responsible for 60% of blood flow, the other 40% is generated by the muscular walls of arteries. Arteries pick up the pressure wave sent out from the heart and add their own booster in a wave of contraction that flows down arterial walls. If you could see arteries working, they would look like wriggly snakes!
- 3) The blood volume and to a lesser extent the "thickness" of the blood - if there is too much blood (as in smoking) the pressure will be high. Anaemia or diuretics reduce the blood volume.



The heart is best thought of as a muscular bag with one way valves, which acts as a pump. Blood pressure measures the peak pressure which is known as the systolic pressure, and the pressure when the heart is relaxed is known as the diastolic pressure. The blue lines show the two levels. When blood pressure is measured, it is two figures that are quoted (systolic / diastolic). In this case the reading would be 120/80, an ideal level for a healthy adult.

How is Blood pressure measured ?

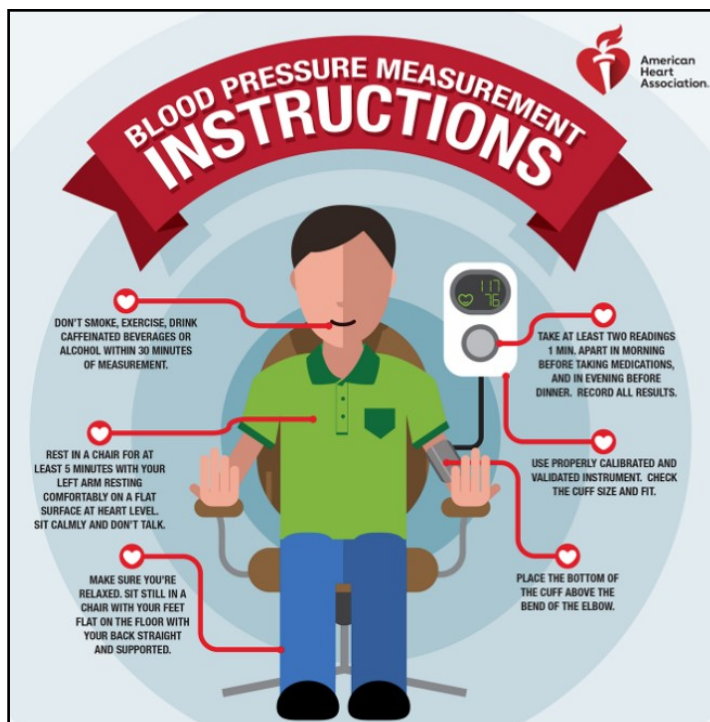
The most usual way to measure blood pressure is to use an instrument called sphygmomanometer. It consists of an inflatable cuff placed around the forearm level with the heart. There is a means employed for detecting blood flow at the lower end of the cuff either a stethoscope or electronic device. The cuff is inflated enough to stop blood flow, then the pressure is slowly released. The systolic reading is the pressure at which the blood starts to flow. This creates a sound in the stethoscope/detector. The cuff continues to deflate, the diastolic reading is the pressure when the sound stops.



Left. A traditional mercury Sphigmanometer. Until about 30 years ago, these were in common use. These have been replaced by aneroid devices with a large clock like dial. Skill is needed to use these devices.

Right. A modern electronic device for use in the home or sometimes in surgeries. These devices have memories and record the results. Once the cuff has been fitted correctly, the only action needed is to press the start button and wait.



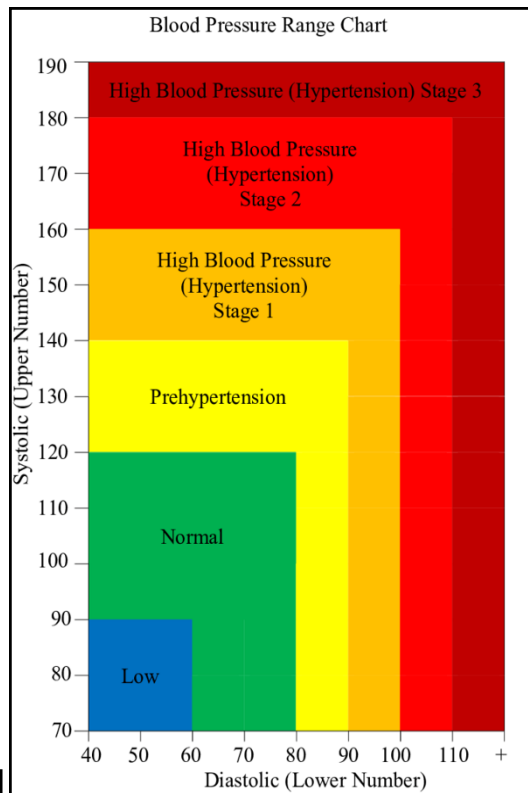
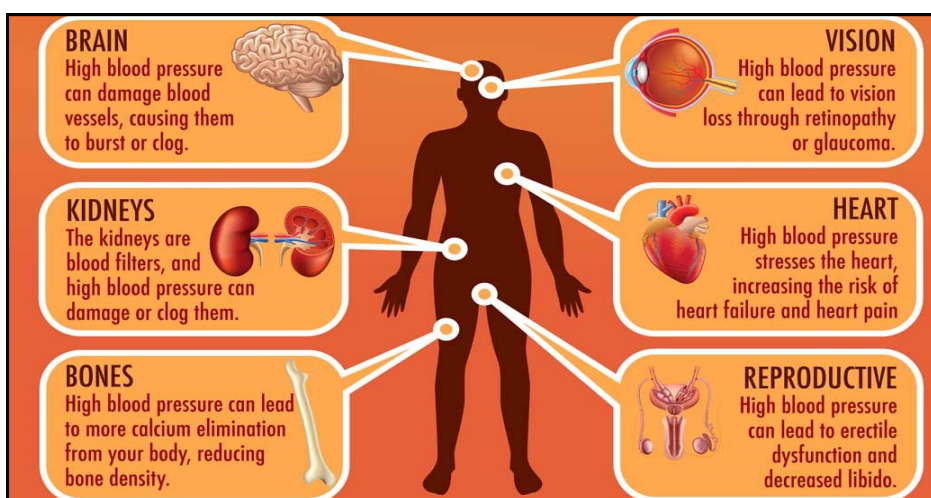


There are many things that can interfere with a blood pressure check, so when a blood pressure reading is taken it has to be taken sitting down the correct environment. The image on the left illustrated things that can go wrong and give false readings. Usually a series of readings are needed to form a conclusion. Locally a weeks readings are recorded on a form similar to the one below.

Patient Name: _____		Date of birth: _____	
How to write in the readings :		118	Day 1
Practice use only		78	Date: 26/09/2011
		70	118
			78
			70

	Morning Reading 1	Morning Reading 2	Afternoon Reading 1	Afternoon Reading 2
Day 1				
Date:	Pulse	Pulse	Pulse	Pulse
Day 2				
Date:	Pulse	Pulse	Pulse	Pulse
Day 3				
Date:	Pulse	Pulse	Pulse	Pulse

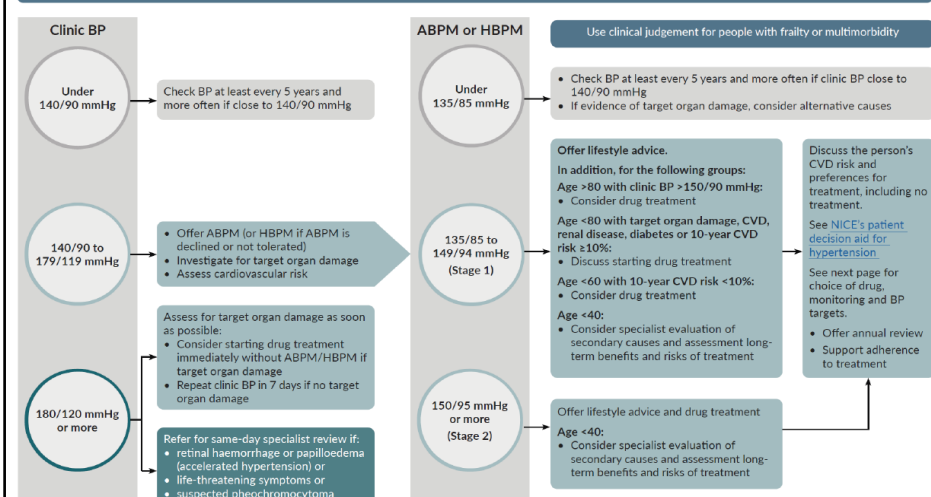
Based on a number readings, a persons blood pressure is allocated to one of the zones to the right by a doctor or other qualified healthcare worker. The problem with hypertension is that it is symptomless. Many people are reluctant to take medication or treatment for this reason. However the consequences can be catastrophic if the blood pressure is not controlled. Below are the main consequences of hypertension.



Hypertension in adults: diagnosis and treatment

NICE National Institute for Health and Care Excellence

Offer lifestyle advice and continue to offer it periodically



Locally the NICE guidelines are used as a basis for treatment. If hypertension is detected it is important to exclude other serious conditions which can cause it. For the vast majority of patients, no cause is found, and these cases are classed as Essential Hypertension,

Most of the treatment involves oral medicines, but lifestyle interventions may also be needed. The main ones are lifestyle, cessation of smoking and weight control.

More on the causes of high blood pressure (Hypertension) from Dr. Myhill.

Arterial narrowing: Arteries can be narrowed for two reasons:

Firstly, they may be narrowed and stiffened as a result of arteriosclerosis. If this is the case, then the blood pressure is fairly fixed and there is a wide pulse pressure reflecting stiff arteries - that is to say, the difference between the top reading (systolic) and bottom reading (diastolic) is high. A typical reading would be 170/100. Furthermore, every time it is measured it is about this level. These are the hardest patients to treat since all one can do is prevent deterioration by aggressively tackling the arteriosclerosis. These patients need drugs to keep their blood pressure down and prevent accelerating arteriosclerosis, whilst one puts in place nutritional interventions.

The second reason for arterial narrowing is spasm or thickening of the muscle walls. This is what happens in the early stages of high blood pressure, and this is reversible. There are several reasons for this spasm:

- Hypoglycaemia. Common in some cases of ME/CFS
- Stress - causing adrenaline release. Lack of sleep could do this, especially sleep apnoea syndrome.
- Allergies
- Mineral imbalance, especially magnesium deficiency and excess salt (sodium) in the diet. Common in some cases of ME/CFS
- Hypothyroidism. Common in some cases of ME/CFS
- Hormones - particularly female sex hormones as in the Pill and HRT - cause muscle thickening.

You can tell the difference between the two causes of blood pressure by measuring your blood pressure regularly. Arteriosclerosis causes a fixed blood pressure and wide pulse pressure (because the arteries are stiff and do not absorb the pressure wave created by the heart beating). Muscle spasm causes a variable blood pressure with a narrow pulse pressure (e.g., 120/90 one day, 135/104 another). In practice, the two problems often co-exist, and all the possible causes of high blood pressure need tackling at the same time.

The problem with spasm of the arteries is it creates local high blood pressure, this increases turbulence of the blood within vessels and this damages the delicate lining of the blood vessels. Arteriosclerosis is the body's attempt to heal and repair this damage. It is essential to do this to prevent the blood vessel bursting! The healing and repair involve sticking a fibrous patch over the damage and this scar tissue slightly narrows and stiffens the artery resulting in permanent narrowing. The point here is that the reversible reasons for arterial narrowing result in the irreversible reasons for arterial narrowing! Once one has this irreversible narrowing, prescription medication is an essential part of treatment otherwise further damage caused by high blood pressure results.

Hypoglycaemia

This, in my view, is the single most important cause of high blood pressure. The problem with sugar and carbohydrates is that they are addictive. In the short term a high blood sugar brings desirable effects on the brain because it allows the brain to work efficiently whilst at the same time releasing the happy neurotransmitters that improve mood. We all lead stressful lives and in stressful situations one needs one's brain to be working efficiently but feeling cool, calm and chilled out at the same time. To achieve this we go for our comfort foods which nearly always are comprised of carbohydrates such as chocolate, sweets, crisps, bread, bananas or whatever. The problem with running a high blood sugar is that it is potentially damaging to muscles. The little arteries that supply blood to muscles constantly monitor levels of blood sugar and if the levels rise too high then these arteries will contract, thereby cutting off the blood supply to muscles, increasing the peripheral resistance and this results in high blood pressure. At the same time insulin is released to bring the blood sugar down, which it does by shunting sugar into fat. So the sufferer tends to gain weight easily. As the blood sugar falls, the sufferer ends up with foggy brain and inability to think clearly combined with irritability and mood swings and therefore goes for their comfort food again, and so the cycle repeats itself.

Thus, the carbohydrate addicts end up with middle-aged spread, high blood pressure, mood swings and fatigue. In the longer term these are all major risk factors for heart disease, cancer and accelerated ageing.

Stress

Arterial muscle spasm is a normal response to stress. Homo sapiens evolved leading a very physical life fraught with danger. He had to be able to react, at a moment's notice, to physical danger. This would mean some intense physical activity - running, fighting or whatever. To prepare for this the heart would beat faster and stronger and the arteries would narrow to "hold back" the extra blood (thereby creating blood pressure) so that the blood could be made immediately available to wherever it was needed - usually the muscles. So, there would be a momentary rise in blood pressure, followed by a fall as the blood was utilised. These changes would be mediated by the stress hormones adrenaline, noradrenaline and in the longer term cortisol.

The trouble nowadays is that we have plenty of stress, which causes the "fight or flight" response, but we don't burn it off. See Exercise. So, we have high circulating levels of stress hormones which cause blood pressure through muscle spasm. This probably explains why the "type A" personality (the aggressive go-getter) is more prone to arteriosclerosis. The problem is compounded when the go-getter turns to sugar, fast carbohydrates and junk food or alcohol or smoking to help control his/her stress symptoms.

A certain amount of stress is good for you. It is a case of getting the balance right.

Allergies

Allergies to foods and chemicals can certainly cause arterial muscle spasm. Indeed, this is the mechanism by which allergies cause migraine. Allergies to foods can also cause the heart to go faster and, in some cases, palpitations.

Mineral imbalance

Magnesium is necessary for muscles to relax. So a deficiency will cause arterial muscle spasm with consequent rise in blood pressure. Calcium probably also has a lesser role. It has been known for years that drinking hard water (rich in calcium and magnesium) is protective against the development of heart disease.

Salt (sodium chloride) has long been recognised as a cause of high blood pressure. The trouble is that the food industry loves to add salt to food firstly because it disguises poor quality food, secondly because it makes you thirsty, so you then need to buy an expensive drink - wonderful for profits!

Kidney problems

Blood pressure is largely controlled by the kidneys - they do this partly because they must secure a good energy supply for themselves! The kidneys consume a lot of energy and are highly dependent and sensitive to regular good energy supply - if this falters the kidney fails. To prevent this, they will increase the blood pressure via hormones renin and angiotensin to secure a sure energy supply. Anything that compromises mitochondrial function therefore will impact on the kidneys and their response to this could result in high blood pressure.

Another issue has to do with heavy metals. The kidneys are a favourite dumping ground for heavy metals. This may cause problems for two possibly reasons - firstly direct toxicity by inhibiting mitochondria.

Secondly heavy metals may act as haptens (triggers) to switch on allergy and/or auto-immunity. This results in useless inflammation which gets in the way of normal renal function. The glomerular filtration rate will slow - an early sign of kidney disease.

Making the diagnosis of high blood pressure

Measure it. I would want to see at least 3 readings consistently high before diagnosing high blood pressure. You could leave this to your doctor. The only problem is that some people suffer from "white coat" hypertension, i.e. the stress of going to see their doctor puts their blood pressure up. The other possibility is to measure it yourself. There are now many excellent idiot proof blood pressure cuffs on the market and this is the best solution. It also helps you to identify situations where your blood pressure peaks - so, for example, you would be more likely to pick up an allergy problem (often allergic reactions are accompanied by an increase in pulse rate and this would also raise blood pressure).

In the early stages of raised blood pressure, it is possible to correct the problem with nutritional interventions. In the late stage, when the arteries are stiff with arteriosclerosis, the nutritional inputs will do no harm but may not reduce blood pressure. At this stage one is in a vicious cycle of impaired blood supply to the kidneys resulting in a release of hormones that increase blood pressure (in an attempt to increase renal perfusion). This causes further damage to blood vessels! So late stage high blood pressure, especially when accompanied by kidney disease, does require medication.

The problem is that most doctors treat all cases of blood pressure as if they are late stage problems, thus committing many people to lifelong medication when, in fact, simple nutritional interventions would do the trick. Again, early hypertension is a warning sign that not all is well!

Rare causes of high blood pressure

These should always be considered at the first sign of high blood pressure, but in practice they are often overlooked because they are uncommon causes. However, especially if your blood pressure does not respond to treatment, then they should be reconsidered as causes:

- Any kidney disease.
- Overactive thyroid - diagnosed by blood test for thyroid hormones.
- Overactive adrenal gland as a result of a tumour (phaeochromocytoma). Suspect this if there are recurrent odd attacks of flushing, sweating, anxiety, headache and/or palpitations. May be misdiagnosed as a panic attack.
- *Overactive adrenal gland as a result of autoimmunity* - Cushing's syndrome. This can be checked for by doing blood cortisol level.
- Overactive adrenal gland causing Conn's syndrome (very, very rare!) - causes low blood potassium levels. This test cannot be done on a sample sent to the lab in the post so you would have to travel to a laboratory to get the blood done
- Poor blood supply to the kidneys (renal artery stenosis) can present with high blood pressure. A narrow aorta causes the same problem for the same reason. These diagnoses are difficult to make - they must be suspected clinically and tested for by rapid magnetic resonance angiography. I would like to think that soon these scans should be available to make these diagnoses.

- Drugs - don't forget the Pill and HRT, monoamine oxidase inhibitors in conjunction with the wrong foods.

Drug group	Commonest side-effects	What to do?
ACE inhibitors and ARBs	Postural hypotension	Take initial doses in the evening when patient can check effect. Stand up slowly.
	Persistent dry cough	Refer to GP to try a low cost ARB.
	Angioedema with pruritus and urticaria	Refer urgently if angioedema suspected.
Calcium-channel blockers	Gastrointestinal disturbances	Advise patient these are short-lived effects. Use over-the-counter remedies.
	Facial flushing, headache, dizziness	Space doses as directed. Advise patient these are also short lived effects.
	Ankle oedema	Refer to GP
Diuretics	Gastrointestinal disturbances, high blood glucose, hyperlipidaemia, low potassium or sodium levels, gout	Refer to GP
	Postural hypotension	Take initial doses in the evening when patient can check effect. Stand up slowly.
	Cramp	Drink more fluids to rehydrate but not too much.
Beta-blockers	Cold extremities, chest tightness or breathing difficulty, thirst, tiredness, excessive urination, bradycardia	Refer to GP
	Sleep disturbances and nightmares	Refer to GP for switch to water soluble atenolol or sotalol.
Alpha-blockers	Drowsiness, 1st dose hypotension, headache, dizziness, dry mouth, blurred vision, gastrointestinal side-effects	Advise not to drive or operate machinery if patient thinks they are affected. Start with low dose and titrate up. Refer to GP if necessary.
Centrally acting antihypertensive drugs (eg, methyldopa)	Drowsiness, dry mouth, bradycardia, gastrointestinal side-effects	Advise not to drive or operate machinery if patient thinks they are affected. Refer to GP if necessary.

Right: Medicines used to control Hypertension

Low Blood Pressure (Hypotension) and Postural hypotension

During evolution a stage was arrived at when monkeys and apes decided to stand up. They also liked hanging upside down in trees! This presented a terrible problem for the circulatory system because unless blood pressure was kept constant, some parts of the body would get too much blood, some too little. The only way this constancy of blood pressure could be achieved was by allowing the brain to control blood supply. This control is achieved by nerves connecting to muscles in blood vessel walls telling them either to contract or relax. Contracting would reduce blood supply, relaxing would increase it. So when the ape stood up suddenly, the arteries to the leg and gut would contract a bit, the arteries to the head and arms would relax a bit. If this did not happen, the ape would fall over in a dead faint as blood followed gravity and pooled in the legs.

Control of blood pressure is done without us having to think about it - thank goodness! This automatic control is carried out by the autonomic nervous system. If the autonomic nervous system is damaged by pesticides, chemicals, free radicals or nutrient deficiencies then postural hypotension is one result. Symptoms of postural hypotension. You may faint if you don't sit down (or lie down) quickly. If you don't actually faint, blood supply to the brain is reduced resulting in feeling dizzy, "spaced out" or "not with it". Postural hypotension usually occurs when you stand up. It is worse if you are hot because blood is already diverted to skin and so it often happens to people when they are getting out of bed. There are some funny reflexes which can result in postural hypotension for example having a pee. This may explain why some men faint in the night when nipping out for a pee. Any drug for blood pressure could worsen a tendency to postural hypotension.

Treatment: Try to identify and avoid obvious causes - think about pesticides, chemicals, free radicals or nutrient deficiencies. Diabetics may get autonomic neuropathy because high blood sugar levels damage nerves. Give your body time to adjust - don't jump up too quickly. Work the muscles of your legs for a few seconds before standing up - this prevents blood pooling in legs as the muscles squeeze the blood out of the veins back to the heart. I would treat postural hypotension as a sort of peripheral neuropathy and use high dose B vitamins and possibly vitamin B12 injections to encourage the nerves to heal and repair. I would also check DHEA levels on the grounds that this encourages repair of tissues.

Postural hypotension could be caused simply by low cardiac output. It is much easier for the heart to pump blood on the flat (lying down) than up and down hills (standing up). Indeed we all feel more comfortable lying down or sitting rather than standing. In severe cases of chronic fatigue syndrome the heart is in a low output state, perhaps sufficiently so that it cannot pump enough blood round when standing. It can maintain blood pressure for a certain time, but then becomes fatigued and so the blood pressure falls. Clinically this is called Postural orthostatic tachycardia syndrome or POTs.

Postural Orthostatic Tachycardia Syndrome or POTs

This is a very common problem in people with severe CFS. It means the sufferer can only stand for a short time before having to lie down. POTs is reputed to result from autonomic neuropathy, but my view is that this is the response to falling blood pressure not the cause. Let me explain. As previously stated, it is much easier for the heart to pump blood on the flat (lying down) than up and down hills (standing up). Indeed we all feel more comfortable lying down or sitting rather than standing because the heart has to work less hard. In severe cases of chronic fatigue syndrome the heart is in a low output state, perhaps sufficiently so that it cannot pump enough blood round the body when standing. So when the sufferer stands, he or she can maintain blood pressure for a certain time, but then the heart muscle becomes fatigued because energy supply to the heart is impaired as a result of mitochondrial failure, so the blood pressure starts to fall. Initially the body tries to compensate by making the heart beat faster. However this too is unsustainable and a combination of weak heart beats which are too fast results in blood pressure falling precipitously. The patient has to lie down quickly to avoid blacking out. One can test for this by a TILT test - this can be done by Dr Julia Newton at Newcastle but other hospitals within the NHS may well offer the same.

Complications: After a prolonged period, untreated high blood pressure can cause heart disease and related complications such as heart attack, stroke, and heart failure. Other complications include: Fluid build up in the lungs, Vision loss, Kidney damage, Erectile dysfunction, and Memory loss.

Food Fact Sheet: Long Covid and Diet

Following a coronavirus (COVID-19) infection, symptoms can last for more than 12 weeks. This is called Long Covid. Symptoms vary a lot. They affect people differently and affect many different body systems.

What is Long Covid?

Long Covid does not seem to be linked to how ill you are when you first have COVID-19. Most people can expect to get better over time. It is important to check ongoing symptoms with your doctor, to make sure there are no other causes. Many of these symptoms can affect your ability to eat well.

What is the best diet for recovery?

Eating can be challenging when you are unwell. But your body needs a balanced and wide variety of vitamins, minerals, protein, energy, fibre and fluid to work best and help recovery. A good intake helps your muscles to rebuild, maintains your immune system and increases your energy levels.

Diets with this balance and diversity include the Mediterranean type diet (considered to be an anti-inflammatory diet) and the NHS

Common reported symptoms include:

- extreme tiredness (fatigue)
- memory and concentration problems ("brain fog")
- feeling sick, diarrhoea, stomach aches, loss of appetite
- changes to smell or taste
- shortness of breath
- chest pain or tightness, heart palpitations
- difficulty sleeping (insomnia)
- dizziness
- joint pain
- pins and needles
- depression and anxiety
- tinnitus, earaches
- high temperature, cough, headaches, sore throat

Mediterranean Diet Pyramid



Eatwell Guide.

- Base your meals on potatoes, bread, rice, pasta or other starchy carbohydrates, as they are a good source of energy.
- Wholegrain types are good for fibre and often release energy more slowly: this is known as having a low glycaemic index and
- may help when struggling with fatigue
- Each day, aim to have at least five portions of a variety of fruits and vegetables, for vitamins minerals and fibre. Fresh, frozen, tinned or dried all count
- Beans, pulses, nuts and seeds, fish, eggs and meat are good sources of protein. Eat red meat less often and small portions
- only, especially processed types like sausages, burgers, bacon.
- Fish is low fat and good to include twice a week, especially oily types such as salmon, and sardines, which are rich in omega-3. Plant-based sources of omega-3 include certain nuts, seeds, oils, soya and omega-3 enriched foods - check out our Omega-3 fact sheet for more info
- Milk, cheese and yoghurt are sources of protein and some vitamins. They're also an important source of calcium, which keeps bones healthy.
- If choosing dairy alternatives, make sure they are fortified with calcium
- Choose unsaturated oils and spreads in small amounts
- Drink plenty of fluids, especially water, milk or sugar-free drinks. Fruit juice and smoothies also count, but limit these to 150ml per day

What if I am losing weight and have a poor appetite?

Try smaller amounts more often, and include easy snacks and nourishing drinks. For more ideas see NHS Your COVID Recovery. If you continue to lose weight, ask your doctor to refer you to a dietitian, who can tailor advice to your needs and help you meet your goals. You may be prescribed nutritional drinks to help boost intake and your weight.

What might help with smell and taste changes?

Some people experience loss or change in smell and taste, following a COVID infection. These changes usually don't last long, but can affect your eating. There are helpful tips at NHS Your COVID Recovery, and the charity AbScent. For instance, adding strong flavours such as spices, or sharp and bitter tastes like citrus may help. Some people find that varying the textures of their food keeps it interesting. Food served cold or at room temperatures are often better tolerated.

What can I do to help my gut health?

Common gut symptoms in Long Covid are feeling sick, bloating, pain and diarrhoea. These are irritable bowel syndrome (IBS) type symptoms. If these persist, speak to your doctor, as it's important to rule out other causes like Coeliac disease. They can also refer you to a dietitian. The BDA Food Fact Sheet on IBS has useful tips to help you manage the different symptoms.

There is emerging evidence that the gut microbiome, (bacteria and small organisms in the gut), plays an important role in our health. Eating for gut health involves a varied and diverse range. Eat lots of different colours of plant-rich foods providing fibre, such as fruit, veg, nuts, seeds, beans, pulses and wholegrains.

Probiotics are also worth considering to help gut symptoms, although there is no evidence that these help Long Covid. A trial of one month only is recommended to test if it's beneficial.

Find out more in the BDA's probiotics fact sheet. Stress, anxiety and sleep disturbance can all affect your gut health, making symptoms worse. Psychological or talking therapies can help with this.

Vitamin D is needed for bone and muscle health, as well as immunity. A daily vitamin D supplement of 10 micrograms or 400IU is recommended for all UK adults from October to April. If you have little or no sunshine exposure because of Long Covid, and are spending most of your time indoors, you should take the supplement all year.

If you are only eating small amounts, or are unable to eat well, you risk a low intake of vitamins and minerals. You may wish to take a one-a-day A-Z multivitamin and mineral supplement, of no more than 100% recommended intake.

Some people with Long Covid believe that high doses of vitamins, such as niacin (vitamin B3), vitamin C, vitamin D, quercetin and zinc improve their symptoms. However, there is no scientific evidence that these supplements work, and taking high doses can harm you. It is best to take a one-a-day multivitamin and mineral supplement, rather than large doses of individual vitamins or minerals.

What about a low histamine diet and Long Covid?

It has been suggested that some people with Long Covid may become sensitive to histamine in food. This may be either because the body's histamine levels rise during inflammation or because it may struggle to break down dietary histamine. As yet there is no evidence that a low histamine diet helps most people with Long Covid. A low histamine diet involves a two to four week trial period. Many foods high in histamine are restricted. They are then reintroduced systematically, one-by-one, to test tolerance. If you do this, we recommend support from a dietitian, to minimise nutritional risk.

This diet is time-consuming to prepare. Many have found it difficult to follow, especially with their fatigue and other debilitating symptoms. Although there are online lists of histamine content in foods, the reported levels are not consistent. Additionally, the low histamine diet goes against the principles of the Mediterranean type diet, by avoiding such foods as oily fish and some fruits and vegetables. The Mediterranean type diet is much healthier and easier to follow.

How a dietitian can help

Ask your GP or doctor to refer you to a dietitian if you are:

- Losing or gaining weight unintentionally
- Unable to eat well due to smell or taste changes, fatigue, nausea, gut symptoms, or other Long Covid symptoms
- Following a restrictive diet

Alternatively, you may wish to see a private dietitian.

Top tips

- Plan ahead, if possible, for easy, quick snacks, meals and nourishing drinks.
- Eat regularly.
- Avoid restrictive diets.
- Aim for a Mediterranean type diet, including a diverse range of plant-rich food.
- Check for any unwanted weight changes - aim to keep a steady healthy weight.
- Be kind on yourself. Eating can be difficult enough when you are unwell. Small changes often work best.

Other BDA factsheets are available through the Leger ME office

Editors Comment: *Post Covid syndrome is a Post Viral Syndrome, and from the point of view of Leger ME, we see very little difference between this and ME/CFS. Regular reader of Pathways will recognise that the advice given in this feature from the British Dietetic association DBA is very similar to that for ME/CFS.*



Leger-ME:

www.danum.me

Mutual Support and Signposting Group for people suffering with Fatigue Syndromes *

Meetings are held,
on the 3rd Thursday
of each month between
1pm and 3:30pm
@ The Linney Centre,
Weston Road (behind the shops),
Balby Doncaster DN4 8NF.

1 to 1's sessions are available by appointment only.

For more information contact: Mike at Leger ME, Doncaster

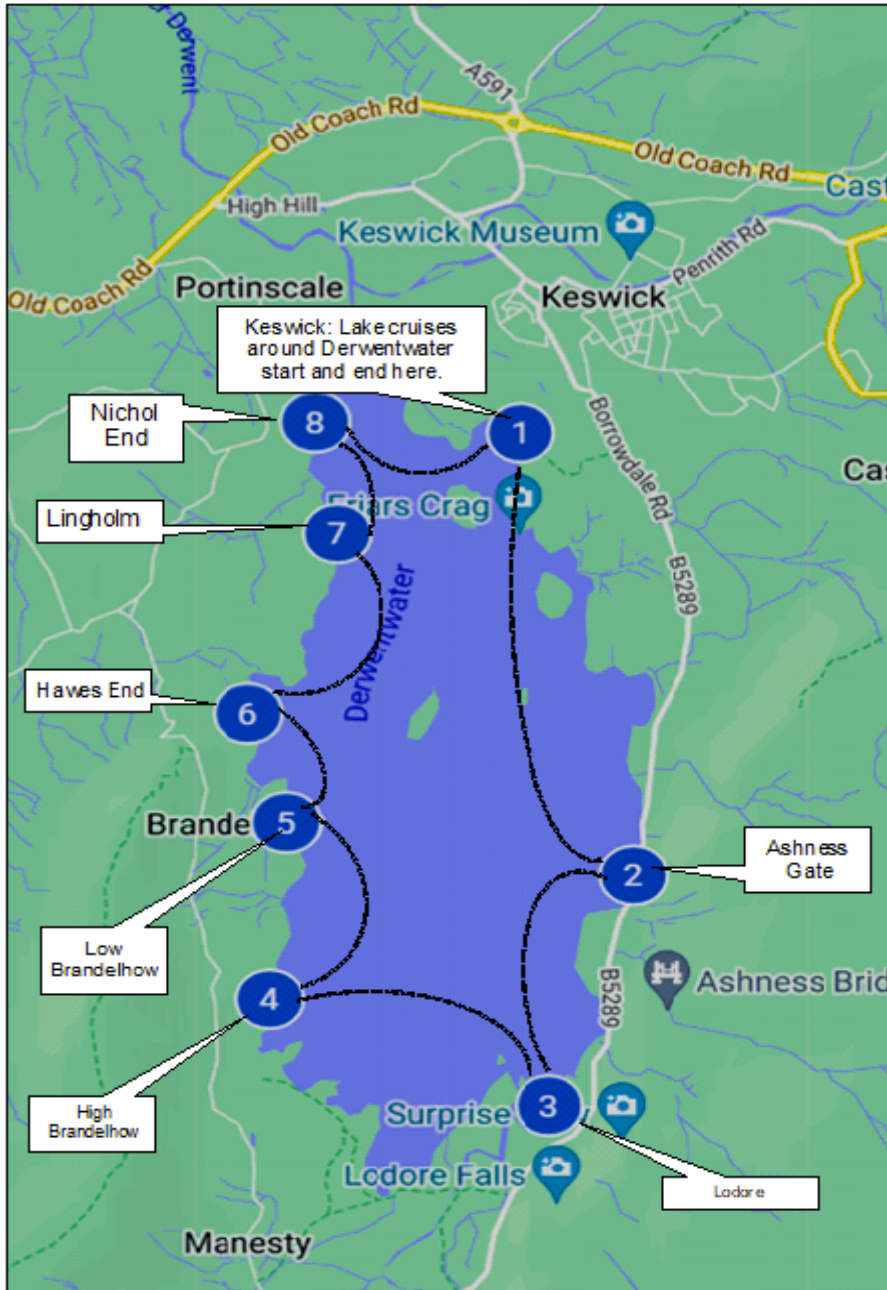
✉ mike@danum.me.uk 01302 787353 (Please leave a message)

We have of policy of not accepting unregistered calls,
with all calls being logged.

* Fatigue Syndromes are long-term health conditions and where Fatigue and Pain are the primary symptoms which include ME/CFS, Post Viral Fatigue Syndrome, Fibromyalgia Syndrome and Post/Long Covid Fatigue Syndrome.

Out and About: Cruising on Derwentwater

Derwentwater is one of the smaller lakes in the Lake District. It is situated south of Keswick. Derwentwater is 3 miles long, 1.5 miles wide and 72 feet at its deepest point. Some of the lakes in the area are reservoirs and some have restricted activity. Derwentwater is one of the four lakes which provide a



passenger launch or ferry service. There are two routes around the lake, one clockwise and the other anticlockwise. Either route takes around 50 minutes. There are jetties, which are like bus stops, where people can board or disembark the launch. There is also a conductor to take fares on the launch. There is a timetable, but this varies according to the season and lake conditions. For example, on windy days when the water surface is choppy, services are suspended.

A cruise on Derwentwater is a very special way of discovering the Northern Lake District scenery. You can experience the beauty of Derwentwater with breath-taking views of the surrounding fells, with special views of Skiddaw, England's fourth highest mountain, Catbells, and the 'Jaws of Borrowdale'.

On our trip we went by car. There is no specific place to park for boarding the launches. We had to use the public car park next to the theatre. The launch jetty is around a 300 yards walk from the car park. You buy tickets from a small building by the lake, and then wait for you launch. In high season these are every half hour. There are places to sit and wait. The only toilet facilities are in at the car park. Although there are free disabled parking places, on our visit they were all full up. Parking is expensive in the Lake District everywhere.



We boarded the launch from the jetty via steps. For someone with mobility problems they have a ramp suitable for wheelchairs to gain access to Pier One at Keswick Boat Landings, however it is not possible to board the launch in a wheelchair. People with limited walking ability may be able to descend the four steps into the launch themselves.

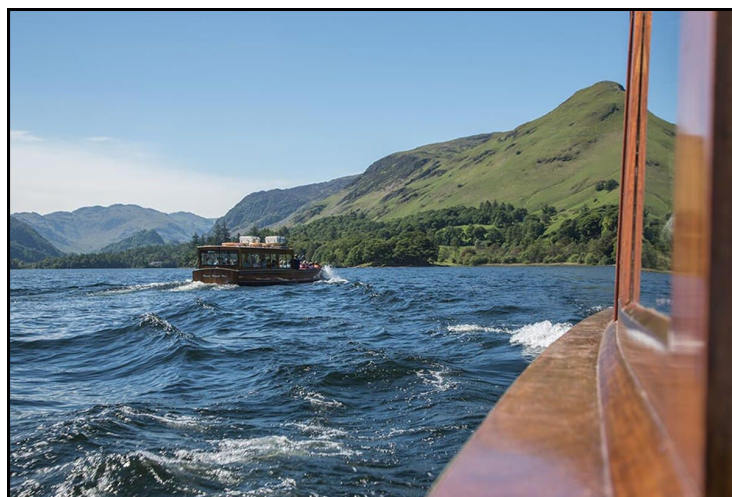
The launch carries about 90 people. Half sit in the front open part, while half sit in the covered part. We decided to sit in the front. The problem is that if you sit in front, you are likely to get drenched by waves and backwash from the boats. We passed the well known landmarks of Ashness Bridge, Lodore Falls, Grange in Borrowdale, Brandelhow and Lingholm, holiday home of Beatrix Potter. We passed the four islands owned by the National Trust, Derwent Island, Lord's Island, Rampsholme and St Herbert's Island.



One leaving the sixth stop, the boat started to go around in tight circles. There was another boat close by and its and our backwash spray us. There was obviously something wrong. The wind had blown the conductors hat onto the water, and the pilot was driving in circles trying to retrieve it, but it sank very quickly..



On approaching each jetty, the pilot slowed the boat and asked if anyone wanted to disembark. If no-one was waiting on the jetty, he just passed it. Where people were waiting to board, the pilot had to carefully manoeuvre the launch by means of forward and reverse gears. When the launch got near enough, the conductor lassoed a rope to a post on the jetty, and tied for boarding. On setting off they played a recording about what to do in an emergency. This got a bit monotonous, because it was played after each stop.



On many attractions, dogs are welcome. On our trip, there were at least half a dozen dogs of all shapes and sizes. Roo quite enjoyed his boat ride.

Overall a great day out. However it is not suitable for anyone who can't walk up steps, or has to use a wheelchair. The care parking charges are expensive, and the public toilets are also 50p pay toilets. The round trip for adults cost £12.50 per person.

If someone is really disabled, there are special facilities in other parts of the lake.

North of Doncaster

Personal comment by Trevor Wainwright

In this issue a bit of local history from Wakefield the city where I was born, I have chosen Sandal Castle, the only remaining castle of two built in the 12th century the other being, Lowe Hill or Lawe Hill was a castle built on a hill on the north side of the River Calder near Wakefield, England. Its name derives from the Anglo Saxon "hlaew" meaning a mound or cairn, possibly a burial mound North of the Calder, in what we now know as Thornes or Clarence Park, believed to have been destroyed by the great gale of 1330. Sandal to the South, both Castles were a mile apart and were said to be there to control river traffic the river running between them both occupying strategic high ground affording good views of the river and surrounding countryside, but with urban development over the centuries the river is only visible looking East from Sandal Castle towards Denby Dale, it is also said that castles were where the local people paid their taxes.

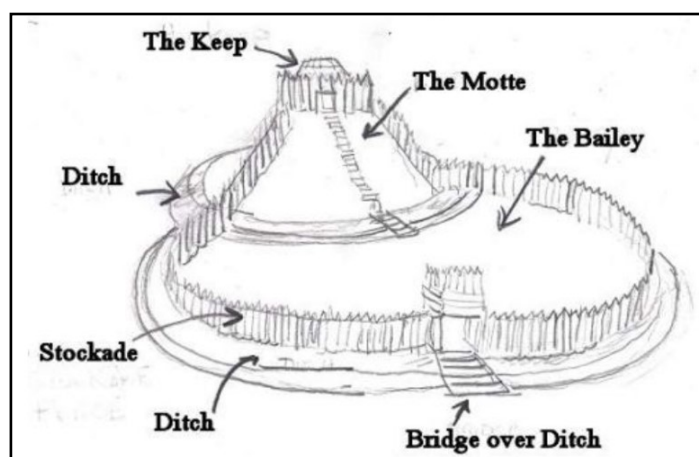
Sandal Castle although known for its involvement in the War of the Roses, was for many years some small remains of the castle walls and the moat, although the hill offered wonderful views of the surrounding countryside there was not much to show of its history, but it was a great place to play after cycling there on a weekend or school holidays.

There had been some attempts at excavation but nothing like the final one that brought it to the great tourist attraction that we have today, it began in the summer of 1964 a partnership between Wakefield Corporation, Wakefield Historical Society, and the University of Leeds. Starting as an experiment in adult education, which with the help of over a hundred local volunteers, grew into a complete and rigorous excavation that continued for nine years. Whilst excavating the bailey, archaeologists found remains of flint tools suggesting a Mesolithic encampment was there in about 5,000 BC. But what of how it came about?

Started and completed in the early 12th century by William de Warenne, 2nd Earl of Surrey, who supported Robert Curthose (Robert II of Normandy), eldest son of William the Conqueror against Henry I and was banished from the kingdom for two years. Later he was given the Wakefield manor after he had been granted the manor of Wakefield. The castle would remain in de Warrenne hands Initially an earthwork motte and bailey castle built on the Oaks Rock a natural sandstone ridge it was probably completed by about 1130. Locals would have lived in the bailey, look out kept from the motte on top of the hill, in the event of danger the alarm could be sounded so the locals could seek safety in the motte until safe to come out again.

Archaeological evidence suggests that the rebuilding in stone started at the very end of the 12th century and continued throughout much of the 13th century. The only documentary records relating to the building work are references to materials being supplied for building work in 1270 and 1275. Timber motte and bailey castles were often converted into stone if they were in use for long periods; Sandal is a particularly good example of this, having its motte raised to 10 metres (33 ft). The double-walled keep would have had guardrooms, storerooms and servants' quarters on the ground floor, the main hall above and private apartments on the second floor. The tower rooms had garderobes, (lavatories) that discharged on the outer walls of the keep.

Apart from a brief period after 1317 when the castle was attacked and captured by Thomas Earl of Lancaster the castle continued to develop under the de Warennes. Until the 7th Earl died, his sons John and Thomas became Knights Hospitaller in the Holy Land, predeceasing their mother. In 1347 the lands passed to Edward III. The de Warennes also had castles Lewes in Sussex and Reigate in Surrey, Castle Acre Castle in Norfolk, and more locally, Conisbrough in Yorkshire.



A motte-and-bailey castle is a European fortification with a wooden or stone keep situated on a raised area of ground called a motte, accompanied by a walled courtyard, or bailey, surrounded by a protective ditch and palisade. Relatively easy to build with unskilled labour, but still militarily formidable, these castles were built across northern Europe from the 10th century onwards.



Left: Sandal Castle, Wakefield, and its history, makes a good start point, in the distance is The Keep. In the foreground, there are the earth works forming the moat.

Below: A close up of the surviving masonry. Historically, ancient ruins were sources of local building stone, and were often plundered by builders for other buildings.

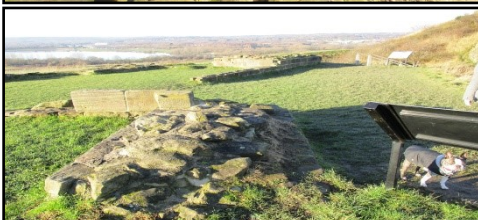


Left: A view from The Keep looking East, the lake is used for water sports with another to its left as a waterfowl sanctuary. Castle were always built on the top of high point so they could see what was going on around them, and were a dominant feature in the landscape.

Right: In the Inner Moat area the door is blocked but was above the moat water level possibly used as a means of escape



Left: Looking from the Keep looking across The Barbican to The Great Hall

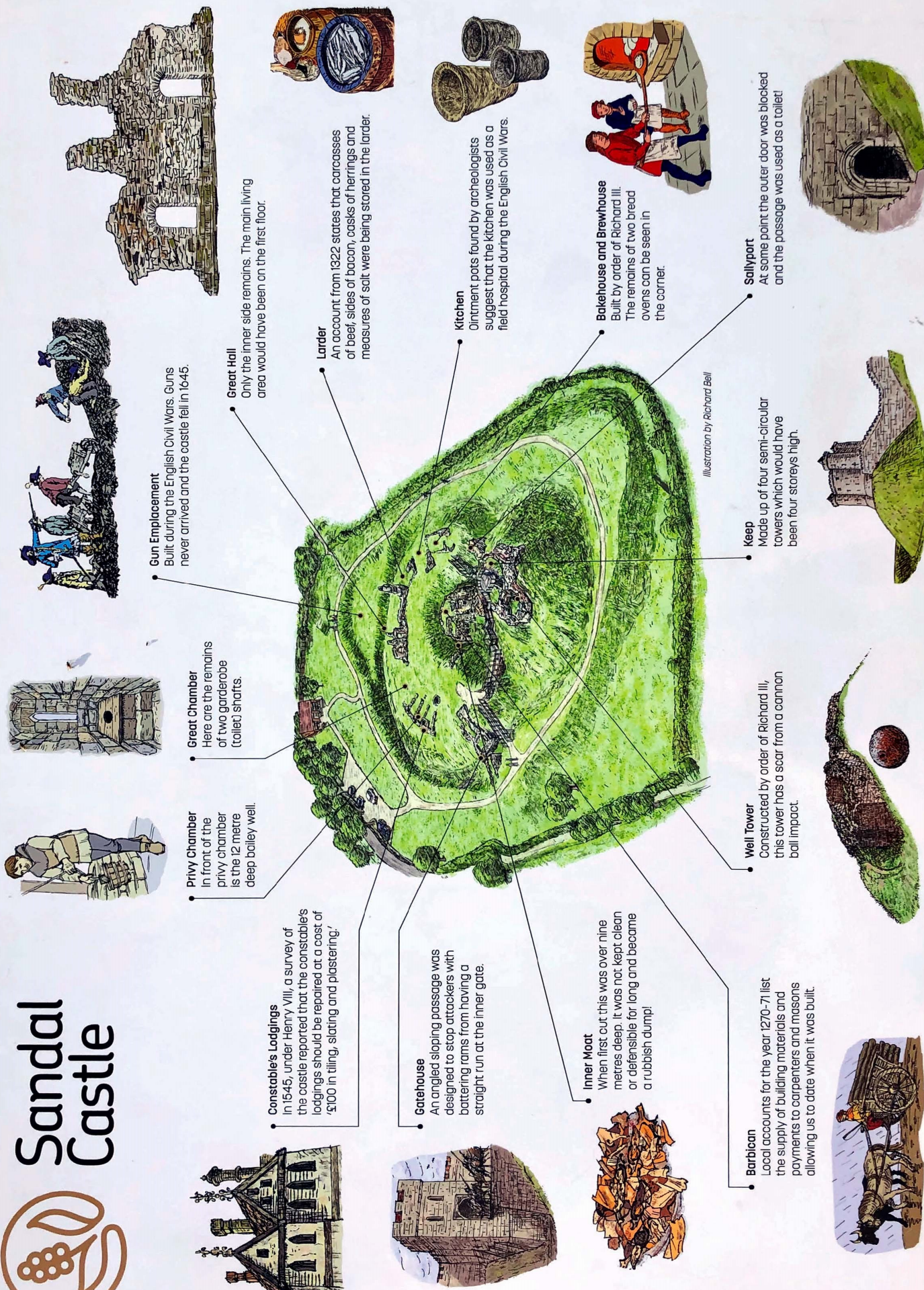


Left: Looking from The Well to Barbican & Keep



Above: The Well near the living quarters

Sandal Castle



Gun Emplacement
Built during the English Civil Wars. Guns never arrived and the castle fell in 1645.

Great Chamber
Here are the remains of two garderobe (toilet) shafts.

Privy Chamber
In front of the privy chamber is the 12 metre deep bailey well.

Constable's Lodgings
In 1545, under Henry VIII, a survey of the castle reported that the constable's lodgings should be repaired at a cost of '£100 in tiling, slating and plastering.'

Gatehouse
An angled sloping passage was designed to stop attackers with battering rams from having a straight run at the inner gate.

Inner Moat
When first cut this was over nine metres deep. It was not kept clean or defensible for long and became a rubbish dump!

Barbican
Local accounts for the year 1270-71 list the supply of building materials and payments to carpenters and masons allowing us to date when it was built.

Well Tower
Constructed by order of Richard III, this tower has a scar from a cannon ball impact.

Keep
Made up of four semi-circular towers which would have been four storeys high.

Bakehouse and Brewhouse
Built by order of Richard III. The remains of two bread ovens can be seen in the corner.

Kitchen
Ointment pots found by archeologists suggest that the kitchen was used as a field hospital during the English Civil Wars.

Larder
An account from 1322 states that carcasses of beef, sides of bacon, casks of herrings and measures of salt were being stored in the larder.

Great Hall
Only the inner side remains. The main living area would have been on the first floor.

Sallyport
At some point the outer door was blocked and the passage was used as a toilet!

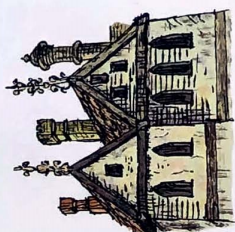
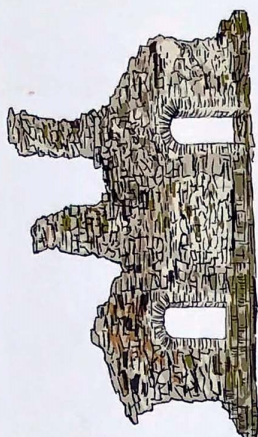
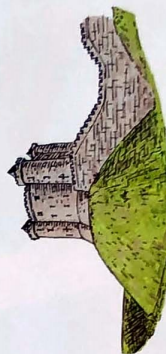


Illustration by Richard Bell

And so, to war for several years before the battle, the Duke of York had become increasingly opposed to the weak King Henry VI's court. After King Henry became his prisoner for the second time, he laid claim to the throne, but lacked sufficient support. Instead, he accepted the title of Protector, and a promise that he or his heirs would succeed Henry. Margaret of Anjou and several prominent nobles were irreconcilably opposed to this accord and massed their armies in the north. Richard of York marched north to deal with them, but found he was outnumbered.

The Battle of Wakefield took place on 30th December 1460. Taking place outside the Duke of York's Sandal Castle, it was a resounding Lancastrian victory. The Battle saw the death of Richard Duke of York in the fighting. Edmund, Earl of Rutland, and the Earl of Salisbury were captured after the battle and executed. The victorious Lancastrians displayed the heads of the dead Yorkist lords on spikes at York. Evidence about why York chose to take the field of battle outside his Castle is conflicting.

It is known that messages were sent by York to his son, the Earl of March, asking for extra troops to be sent to Sandal. Richard was clearly intending to build up forces. However, he did not wait for them to arrive. Instead, he took to the field of battle outside the safety of his Castle's defences. Nobody is entirely sure why. Sources suggest that he may have been tricked. There are some chronicles that suggest that Lancastrians pretended to be part of the reinforcements that Richard had called for, then simply switched sides once he had committed to battle. Another source suggests that he saw it as right and proper to fight a female commander, the queen, on traditional battlefield. Another source suggests that his men left the castle to try and protect a foraging party that had come under attack.

The Battle itself was one of the first of the Wars of the Roses to see high casualty figures. York led a column of men to assault the Lancastrian army that was visible to him. As he attacked, other Lancastrian forces emerged and assaulted the Yorkist army from the flanks. Surrounded by a larger Lancastrian army, the Yorkists stood little chance of victory. Richard was killed on the battlefield. Yorkist troops died in large numbers, estimated to a fatality rate of just under 50%.

The battle of Wakefield left the Yorkists virtually powerless in the North. They still had the large forces commanded by Warwick and the Earl of March. These armies were separated, and both threatened by Lancastrian forces that were increasing in numbers and confidence.

There is the story including the lead up to the battle, in greater detail on the following website
<https://alchetron.com/Battle-of-Wakefield>

During the English Civil War Sandal Castle was Royalist, although its neglected state left it out of the major conflicts. In 1645 however it was besieged at least three times by Parliamentary troops. Having been assured that they would receive a safe passage to Welbeck House in North Nottinghamshire. The garrison consisting of 10 officers and 90 men with two of the men called "seniors" implying that they were professional soldiers rather than just non-commissioned officers surrendered the castle at 10 o'clock on 1 October 1645. They also surrendered 100 muskets, 50 pikes, 20 halberds, 150 swords and two barrels of gunpowder: no pieces of artillery are mentioned.

As a result of this capitulation, only Bolton Castle in Wensleydale and Skipton Castle remained in Royalist hands in Yorkshire, but Sandal "was the most resolute of all the three northern garrisons" and its fall caused great rejoicing among the parliamentary forces. By the siege's end, it was a ruin. The following year, Parliament ordered that it be made untenable. Now it is an ideal leisure spot to catch up on part of Wakefield's history, have a picnic, or meal at the cafe and enjoy the views.



A Victorian impression of Sandal Castle based on information known at the time.

In the next issue: North of Doncaster goes South and a more peaceful part of Wakefield's history