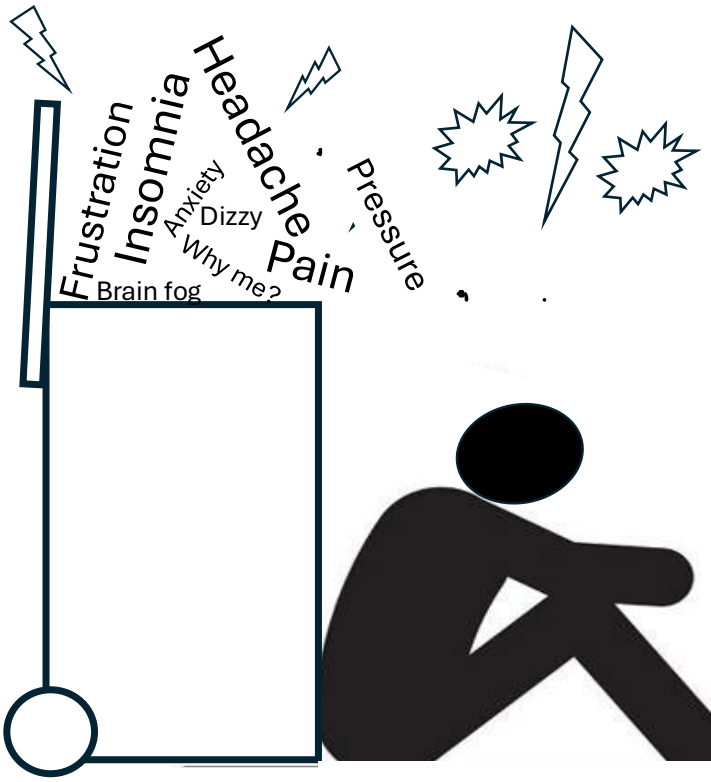
Manage your migraine holistically

Time to take back control



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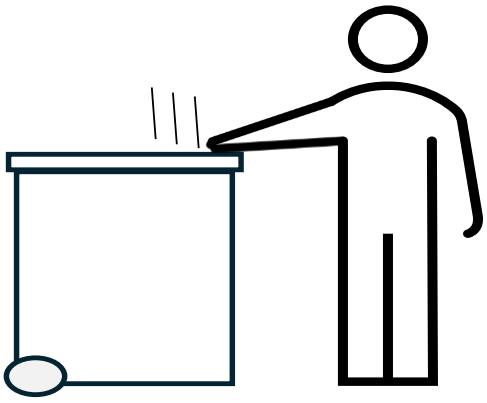
Exeter Headache Care

Outline of handbook

Edition 1 January 2026



Introduction to the handbook

Fortunately, I don't get headache. If I saw someone with migraine in the early part of my career, I am ashamed to say I would not have taken them very seriously. Since accidentally drifting into the area 25 years ago and leading an NHS headache clinic for that time, I now realise what a very significant impact it has on the lives of so many people and how poorly their needs are addressed.

Unfortunately, little headway has been made in reducing the burden of migraine. A recent study suggested that less than 15% of people with migraine have their needs adequately addressed. You may have to take responsibility for addressing your problems and taking back control.

Modern medicine is certainly very effective but overlooks the insight that the body has an intrinsic ability to heal itself. We see this routinely in medical trials when the action of a dummy drug or placebo is never far from the active drug. But rarely do we ask, "what's going on here and how can we mobilise this effect?"

This project is designed to create a space to support you on a journey to take back control of your migraine. It combines best medical practice combined with approaches that mobilise the body's intrinsic ability to heal itself. There is not one approach that is right for everyone as each person's migraine will be different. You must follow the path of what feels right for you.

The handbook has at times taken on a life of its own. In the spirit of holistic practice, it is produced from both head and heart and from a very personal perspective. I must apologise if falls short of design and editorial rigour at times.

I am very grateful to Georgina Rose for the audio practices in the handbook. Georgie has a deep knowledge of holistic practices, and her support has been invaluable.

David Kernick. January 2026.

How to navigate the handbook

The aim of the project

Who the project is appropriate for

How to use the handbook

The basics of what is on offer

How the handbook is structured

What is the aim of this project?

To combine best medical practice with the body's intrinsic ability to heal itself.

There is a bewildering array of self-help gurus, books, web sites, videos and podcasts out there. I want to explore a combination of medical treatment, environmental management and holistic practices that are appropriate for migraine. At times, I wade out into deeper theoretical waters which may be of interest to some readers, but these areas are tucked out of harm's way in an online appendix.

The project consists of four parts. All are free to download, and the handbook can be purchased in hard copy.

1. *Manage your Migraine Holistically – the Essentials*. This summarises the contents of this handbook and may be all you feel you need to know without being overwhelmed with too much information.

2. *Manage your Migraine Holistically – the Handbook*. This is an extensive and detailed approach to explaining and managing migraine.

3. *The online course*. This is a series of online videos that support the handbook.

4. *Appendices*. These provide more detailed and theoretical support to the handbook.

Who is the handbook appropriate for?

The handbook's contents are relevant for everyone, wherever they are in their migraine journey. If you have infrequent migraine, then a simple medical approach may be all you need. However, with increasing frequency of migraine comes other physical, psychological and social challenges and a more holistic approach using a range of options will be more appropriate.

How do I use the handbook?

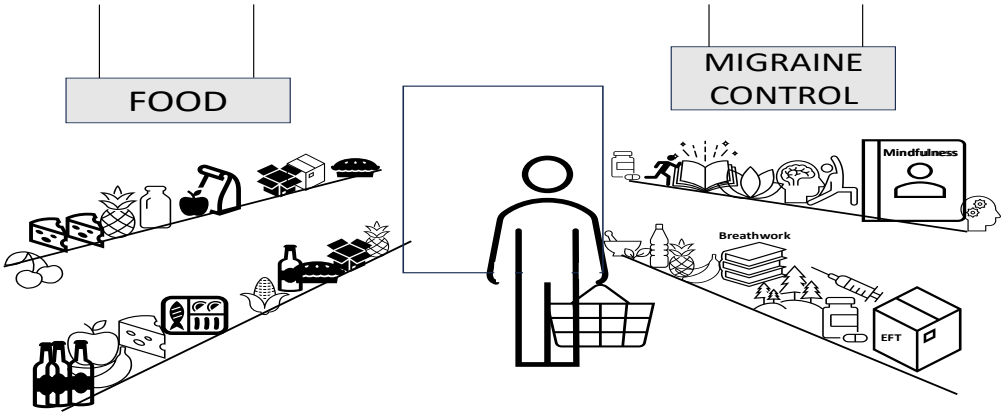
You may feel overwhelmed by the amount of information to take in. There is certainly too much to assimilate in one go, and you can't explore the holistic practices all at once.

You may like to look at "Manage your Migraine Holistically – the Essentials" in the first instance, referring to the main handbook where appropriate and then ready the handbook in more detail if you think it is for you.

The best approach is to view the programme as a supermarket. Have a wander down the aisle first, reading through the material to get a feel of it. What resonates with you? Once you have done this, you may like to follow the online programme. This gives a more structured and measured way forward.

Don't underestimate the challenges. Change is not going to happen overnight. It takes time and considerable effort.

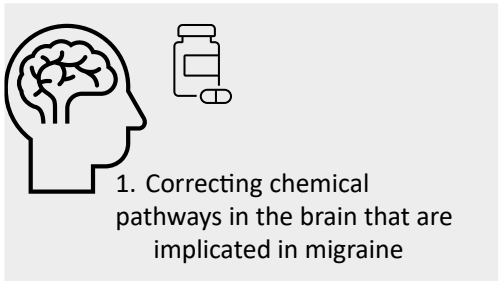
It may be better to have a hard copy of the handbook. The online course will be easier to follow if you do, and you can scribble notes on it as you go. Any profit will go towards the education initiatives of our Headache Clinic, Exeter Headache Care.

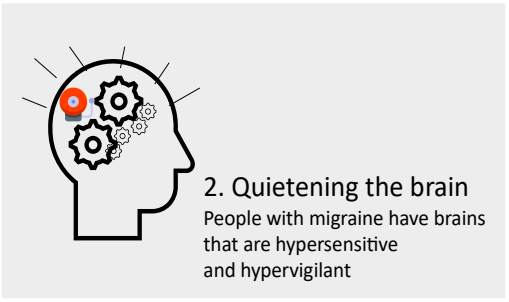


Look at the handbook as a supermarket shelf, not a cookbook. What feels right for you from the produce on offer?

The basic principles of what is on offer (and a word of caution).

Three basic themes run through the handbook to help you to take back control:





Physical, psychological and social stressors can cause chronic inflammation which can make migraine and other associated problems worse. Lifestyle and holistic practices can help.

How is the handbook structured?

The handbook is in three parts:

Part 1 gives an overview of the terrain to be covered. It includes some important theory which underpins holistic practice. It may be heavy going in parts but it's important to get to grips with the basics if you want to get the best out of this project.

Part 2 maps out options for management of your migraine.

Part 3 covers other issues relevant to migraine including the medical problems that are associated with it. The areas of women's health and children are explored. Also included are issues around managing migraine in the workplace and how migraine care is delivered in the health service focussing on how to manage the migraine consultation with your doctor.

This manual often draws upon metaphor, either written or visual. Metaphor asks us to think about one thing in terms of another, opening new insights and inviting us to see things in different ways. A useful metaphor is to view this handbook as a house. (See figure 1.)

On the ground floor can be found five pillars. These are the five approaches to taking back control. In the basement, the focus is on how migraine can affect your sense of self and approaches to address this challenge. The cellar contains theoretical underpinnings which you may find interesting but not necessary for the journey. These are tucked away in a separate appendix online. The annexe contains other relevant information for people with migraine.

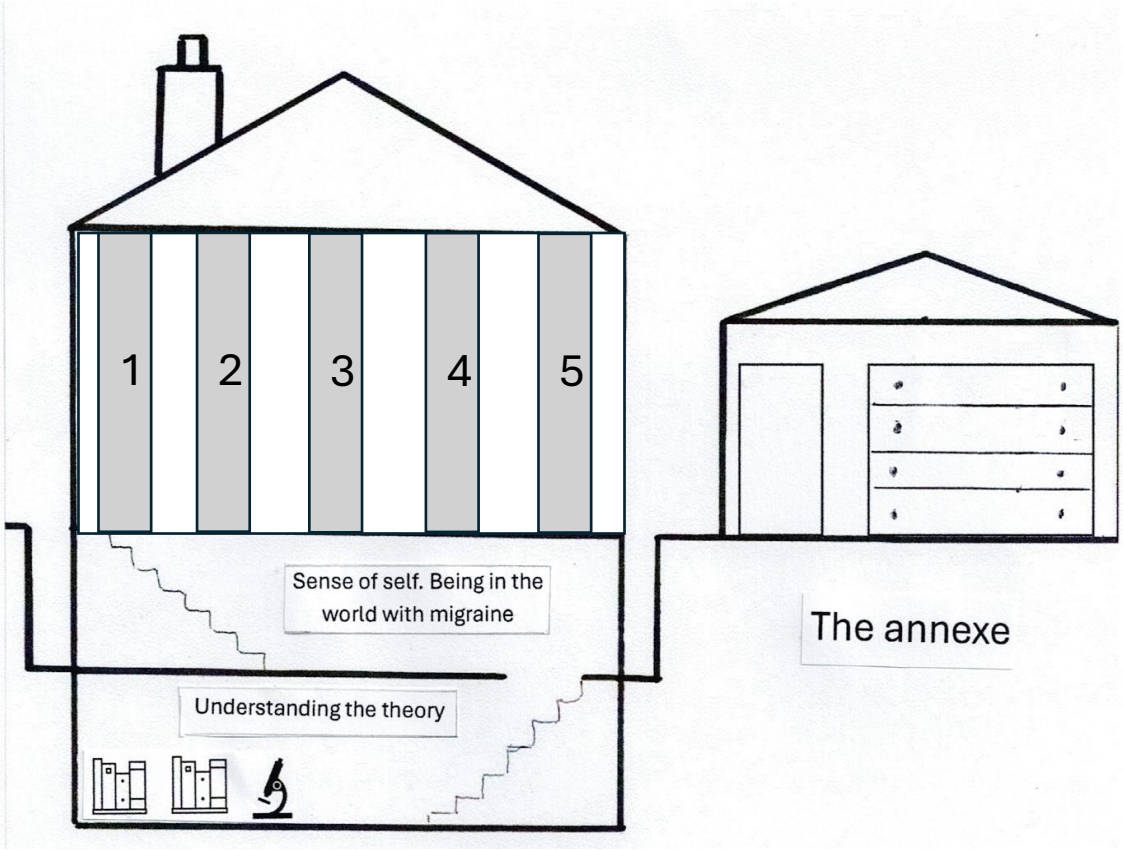


Figure 1. An outline of this handbook.

The ground level. Taking back control**.**

1. The Medical approach.
2. The Psychological approach.
3. Getting the external environment right.

4. Managing interactions in the internal environment.
5. Managing interactions between internal and external environments.

The basement. Reclaiming sense of self and how you are in the world.

The cellar. Appendices that contain theoretical underpinnings and further discussion.

The annex. Additional material you may find useful:

- Managing other conditions associated with migraine.
- Migraine and Women's Health.
- Migraine and children.
- Migraine in the workplace.
- Navigating the health service
- How to manage your headache consultation with your doctor

Figure 2 describes the ground floor and basement in a little more detail.

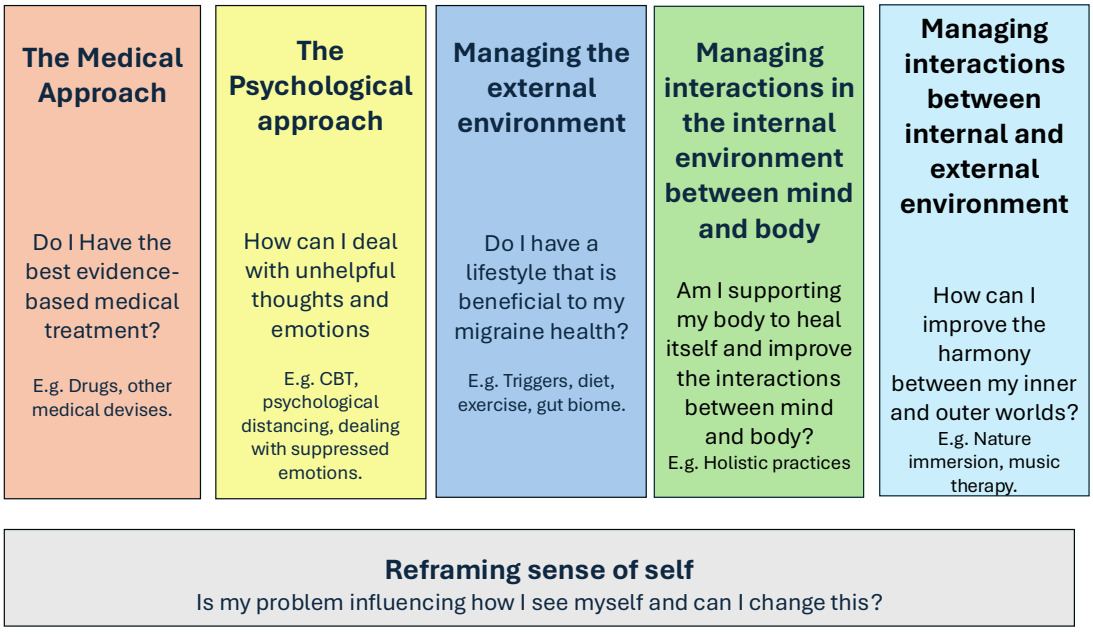


Figure 2. The five pillars of a holistic approach underpinned by a solid foundation.

Want to know more?

In some areas I give references to further reading, podcasts or scientific papers which you may like to look at, but the handbook is not a referenced work. Other useful resources are given at the end of the handbook. Appendix A3 explains how the scientific literature is constructed and can be assessed.

PART 1. GETTING TO GRIPS WITH THE BASICS.

There is quite a bit of background to cover before we get to explore how to manage your migraine. It is important to have a good understanding of the basics before moving on.

Section 1 offers an overview of the migraine landscape to help you identify where you are and give you some context. It also helps you to identify some realistic intentions and expectations.

Section 2 describes migraine in more detail, why it occurs, and the mechanisms involved in its production.

Section 3 explores the meaning of “holistic” and its interpretations from the context of this handbook.

Section 4 may be more challenging and looks at some of the important theory that underpins migraine management. Three key areas are considered.

- How the nervous system works, how things can go wrong with migraine, and how they might be alleviated.
- The suggestion that the mind and body are not separate units but are all part of one interconnected whole. This is an important concept for many holistic practices and finding support in mainstream medicine.
- Chronic inflammation results from a wide range of physical, social and psychological challenges or stressors. This can lead to important consequences not only for migraine, but our general health.

Finally, in Section 5 we get back down to earth and start with some basic practical first steps to move forward.

Section1. Some important starting points.

In this section I want to lay out some important starting points and principles for the journey. Many people will have spent years looking for the right treatment without success. But you are not alone, and it is not your fault you have migraine. There is much you can do to move forward.

1.1. Migraine is not just a headache

Migraine is a complex condition. There can be symptoms in between attacks; it can be associated with a number of other physical and psychological challenges; it can impact on how you feel about yourself and who you are. Unfortunately, it is often stigmatised and carries a negative label. We don't like diseases we can't see, confirm with a test, or put a number on.

1.2 It's not your fault you have migraine

Migraine runs in families, and a strong genetic link drives a susceptibility to migraine. This susceptibility interacts with factors inside and outside of the body leading to the migraine attack and its associated problems.

1.3. You are not alone

In the UK 14% of people have migraine, twice as common in females than males. It can occur at any age (11% of school age children have migraine) but is most common between 25-55 years as shown in figure 1.1.

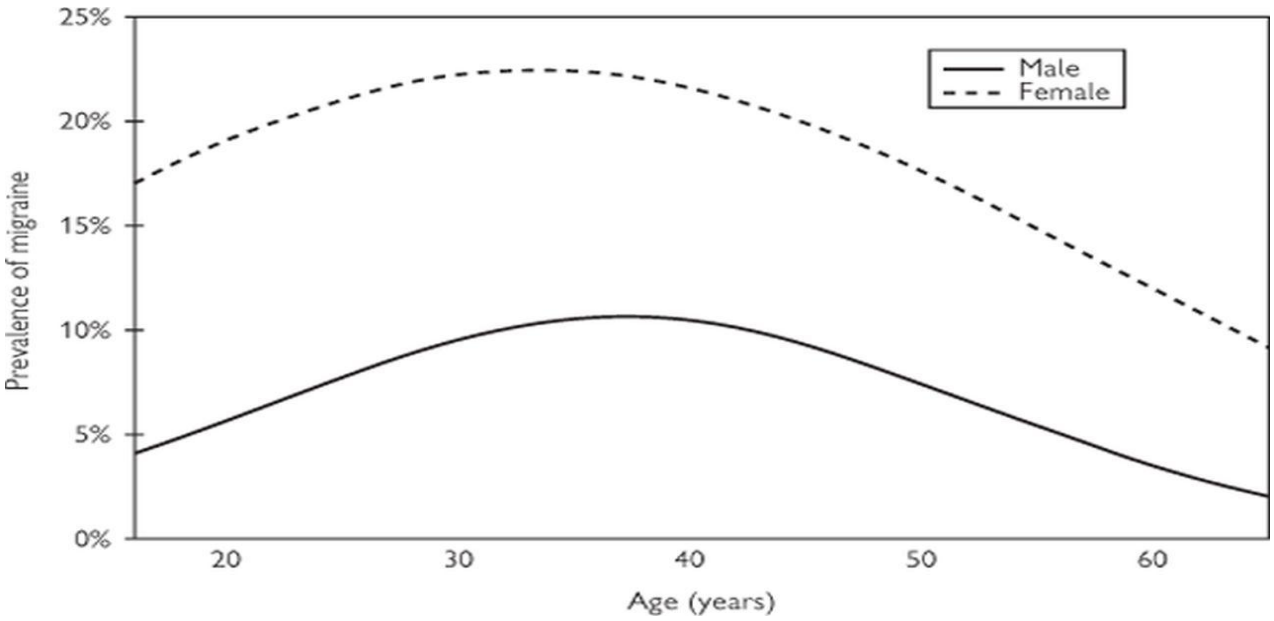


Fig.1.1. The percentage of the population who have migraine in England with age.

1.4. Where have you come from on your migraine journey?

Figure 1.2 shows a typical migraine journey with its ups and downs.

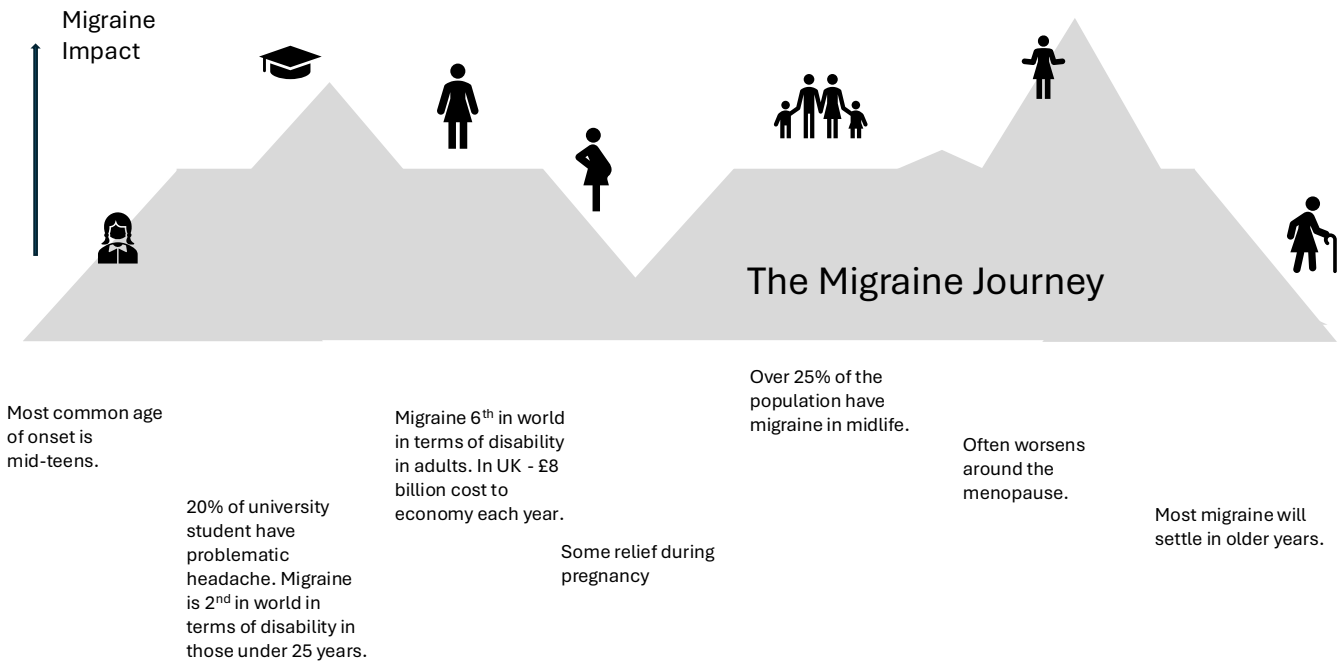


Figure 1.2. A typical lifetime migraine journey.

It is likely that your journey will have taken you on a long and winding road with many blind alleys – a continual search for the right solution that seems forever out of your reach. Frustration and often despair is common. Less than 15% of people will be receiving optimum migraine management. See figure 1.3.

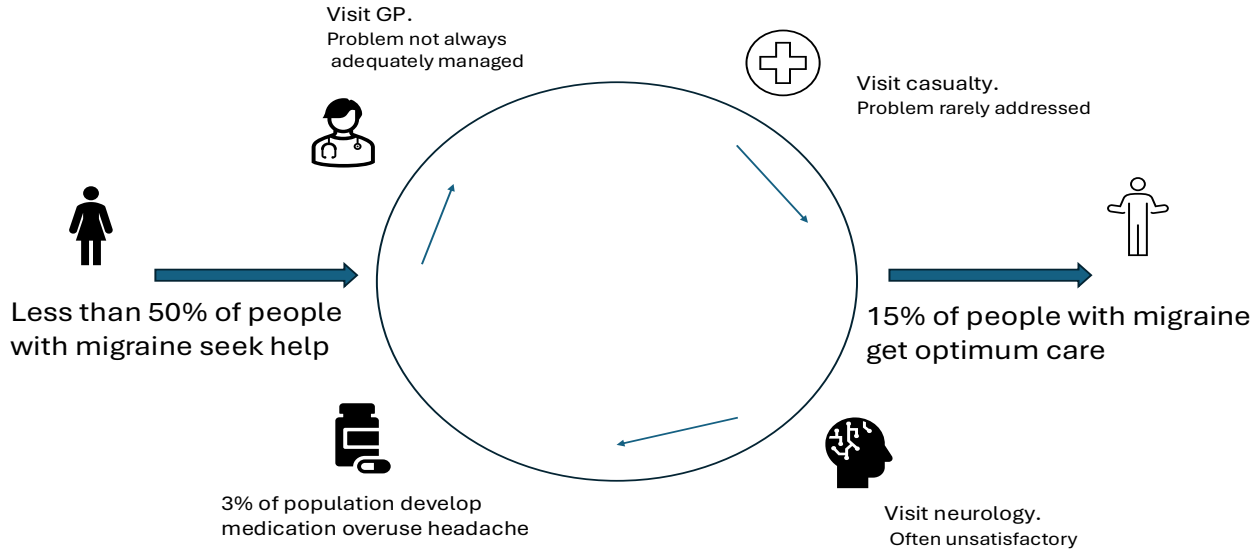


Figure 1.3. The endless search for relief on the health system roundabout.

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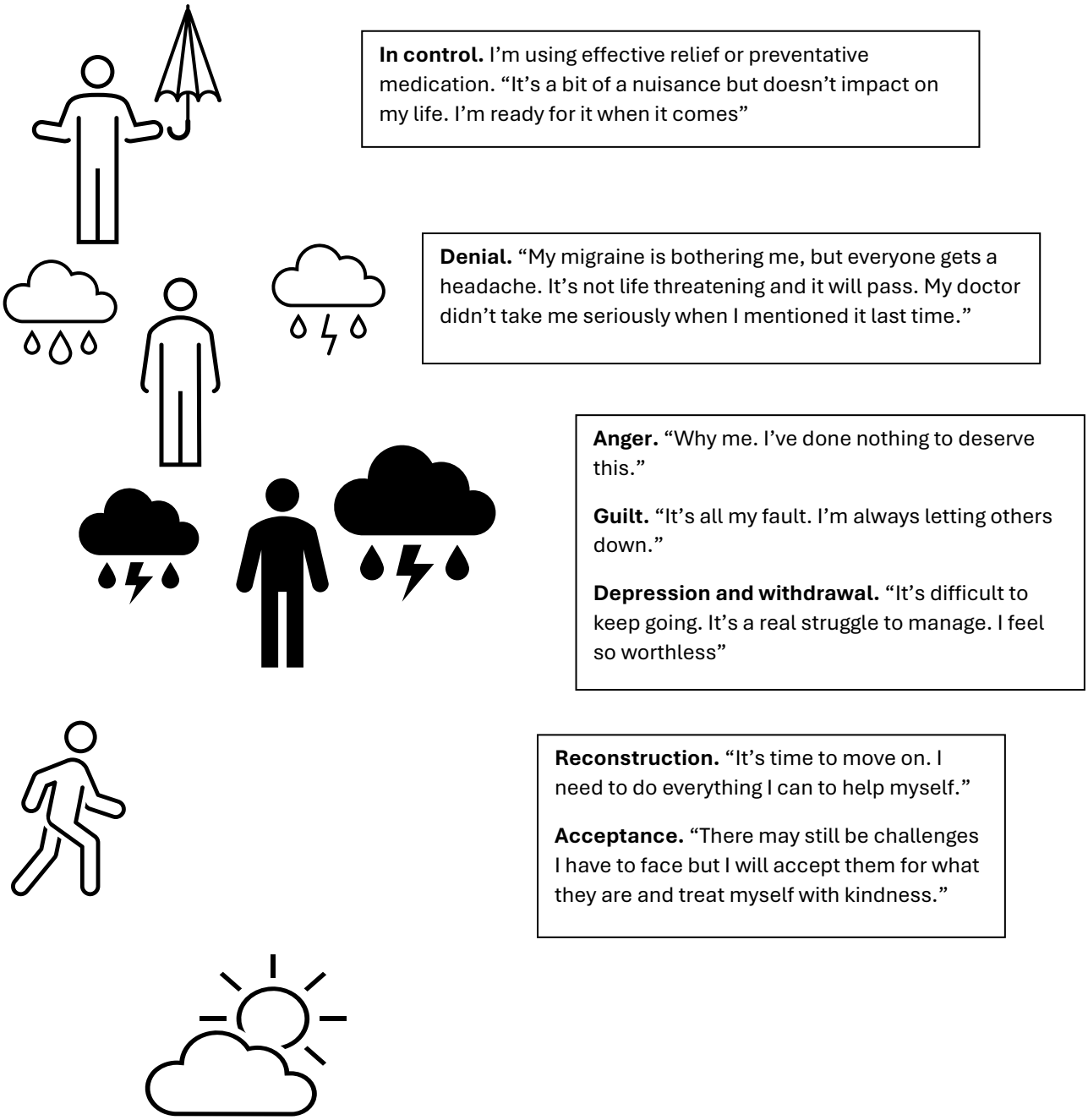
1.5. How are you feeling about your migraine?

Four landscapes can be recognised in a migraine journey. Where are you?



In control. I'm using effective relief or preventative medication. "It's a bit of a nuisance but doesn't impact on my life. I'm ready for it when it comes"

Denial. "My migraine is bothering me, but everyone gets a headache. It's not life threatening and it will pass. My doctor didn't take me seriously when I mentioned it last time."

Anger. "Why me. I've done nothing to deserve this."

Guilt. "It's all my fault. I'm always letting others down."

Depression and withdrawal. "It's difficult to keep going. It's a real struggle to manage. I feel so worthless"

Reconstruction. "It's time to move on. I need to do everything I can to help myself."

Acceptance. "There may still be challenges I have to face but I will accept them for what they are and treat myself with kindness."

Figure 1.4. You do have a choice. No one is stopping you from taking a new journey and rewriting your story. This handbook will help you take the first steps.

1.6. What is causing my migraine attack?

An over-sensitive brain and a modern unfavourable environment is the most important story. How people with migraine generate and store energy in the brain is also an important factor.

The nerve pathways and control systems of our bodies developed hundreds of thousands of years ago when we were evolving on the plains of East Africa. It was an advantage to have a brain that was both vigilant and sensitive. You would have a better chance of survival if you

could track your prey quickly or spot the ever-present danger from lurking predators.

These advantageous characteristics developed against a background of a quieter environment – wide horizons, big skies and soft natural outlines.

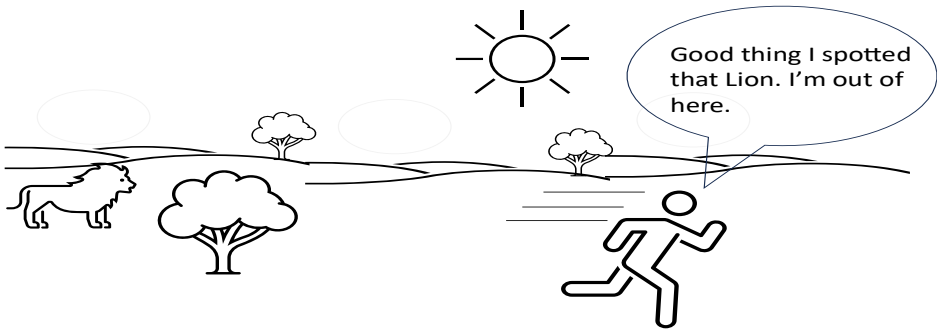


Figure 1.5. The environment where our brains evolved. It would be an advantage to have a sensitive brain.

Figure 1.6 shows the differences between the migraine and non-migraine brain. The migraine brain has:

- A wider focus of awareness and a higher sampling rate of the environment (hyper-vigilance).
- Sensory signals less filtered (hyper-sensitive).
- Higher computing speed of the brain (hyper-responsive).

Because of this, the brain is more sensitive to overload and shut down – the migraine attack.

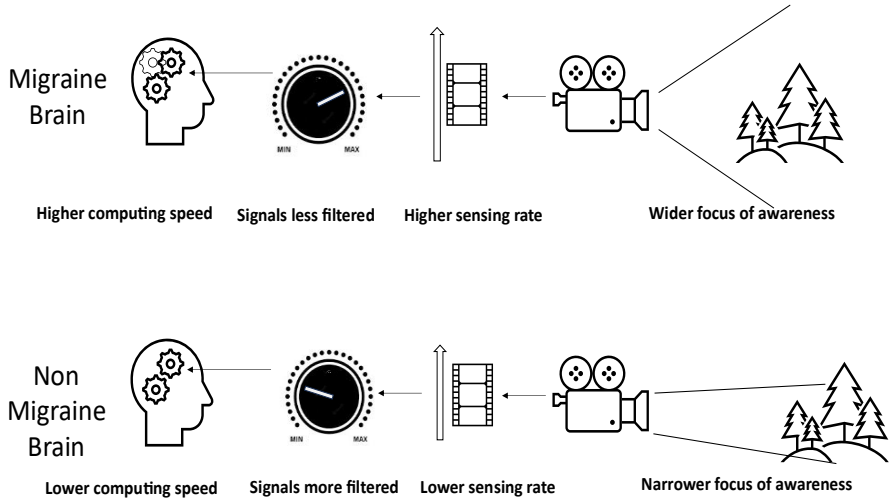


Figure 1.6. The differences between the migraine and non-migraine brain. The brain becomes more easily overloaded.

When the hypersensitive brain becomes overloaded it attempts to withdraw itself from its surrounds, manifesting as the migraine attack. The system crashes and a period of enforced rest ensues, allowing the brain to recover. Some important causes of overload are:

i). The brain is unable to deal with a specific single trigger causing a biochemical cascade that starts an attack. For example, a foodstuff such as cheese or alcohol.

ii). The brain is overloaded with sensory information. The main challenge for the migraine brain is accommodating things that

change, in either the external environment (for example changes in sounds, shapes, movement, weather patterns), or internal environment (for example hormone changes, irregular sleep patterns, fluctuating levels of hydration.)

iii). There may be unprocessed emotions from current or past experiences overloading the brain. Your migraine is trying to tell you something. Take a few moments to ask yourself, “is my migraine is trying to tell me something?”

Figure 1.7. Same hypervigilant brain, different unfavourable environment

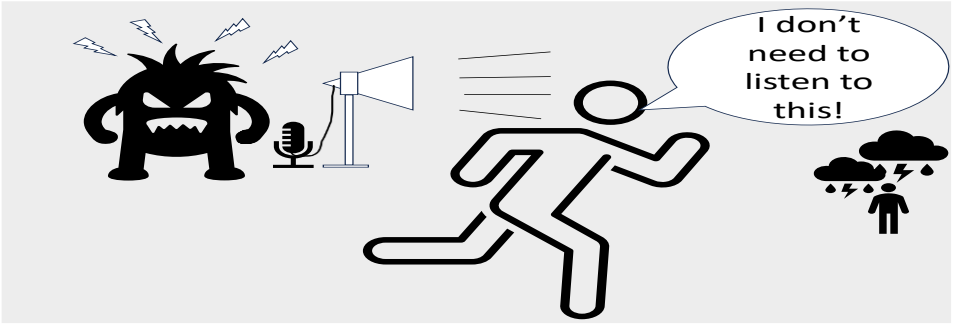


Figure 1.8. Is your migraine trying to tell you something?

There are two further compounding problems

i). *Problems with energy production*.

Although the brain is only 2% of the body’s weight, it is energy hungry and accounts for 20% of the body’s energy requirement.

The energy producing components of the cell are called mitochondria which combine oxygen and glucose to provide energy. The fuel produced is a chemical known as ATP. When the brain becomes more active with tasks such as thinking or ruminating, this power requirement can increase by up to 10%. This can be much higher during short bouts of energy requirement such as psychological stress.

Evidence suggests that the process that produces energy does not work as efficiently in people with migraine. This energy deficiency combined with a brain that is already working at a higher energy demand due to its increased sensitivity can exacerbate migraine further and may contribute to lethargy and brain fog that can occur.

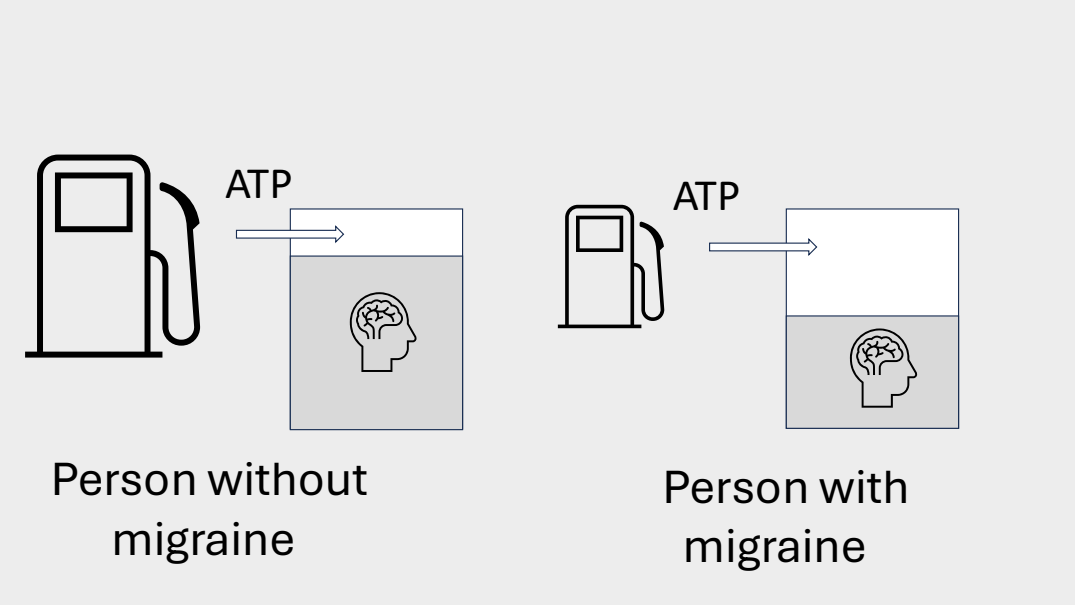


Figure 1.9. Energy production in the brain may be compromised in people with migraine. ATP is the fuel that drives all body processes.

il). *The impact of chronic inflammation*. This can be caused by a wide range of physical, psychological or social factors. This further increases the brain sensitivity. This is a theme that runs throughout the handbook and we will explore this concept in more depth in section 4.

Let's try and put this into an overarching framework. Figure 1.10 shows the four relevant factors: *predisposing factors* (why me?); *precipitating factors* (why a migraine attack now?); *perpetuating factors* (why does it continue?); and *protective factors* (what can I do to prevent it recurring?)

Factor	Input	Mediated by
Predisposing factor	Family predisposition	**Genetics**
Precipitating factors		**Specific triggers.** **Sensory overload.** Changes in internal and external environment.
Perpetuating Factors	• Physical, social and psychological stressors. Unprocessed emotions. Our "stress bucket." • Problems with energy production	**Mediated by chronic inflammation.** **Low levels of fuel for the brain**
Protective factors	Medical treatment, healthy lifestyle, holistic practices, resilience.	Addresses unhelpful chemical pathways. Improve brain energy production. Quietens the brain. Reduces the impact of inflammation.

Figure 1.10. The four "P" s of migraine.

Take a moment to think about where you are.

Predisposing factors - “Is there a migraine disposition in the family?”

Precipitating factors - “Is there anything or any circumstances that set off my migraine?”

Perpetuating factors - “Are there any stresses in my life, current or past. Is there anything I have not fully come to terms with?”

Protective factors - “Have I got the best approach to managing my migraine?”

1.9. Cure sometimes, understanding and being in charge always

Is it possible to cure migraine? It can be in some circumstances. For example, if you have a single, well recognised trigger, removal may cure your migraine. If migraine causes anxiety which then makes the migraine worse, a migraine drug may break this vicious cycle, allow you to address your anxiety and get back to a normal life.

However, as attacks becomes more frequent and associated with other problems, a realistic goal is to get back in charge of your migraine.

People with migraine describe it as a beast sitting on their shoulder – always ready to pounce at an unwanted moment. My aim is to give you an understanding of what is going on and a set of tools to take the beast under control - a shift from your migraine being in charge of you to you being in charge of it.

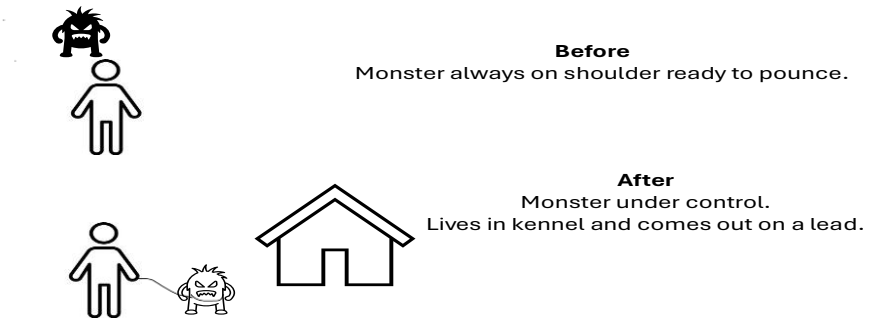


Figure 1.11. Shifting who is in charge of your migraine.

An important concept is your approach to control over your health and wellbeing or where your “locus of control” sits.

Do you feel in control of your circumstances and able take charge of your direction, or do you see yourself a passive victim of forces beyond your control?

Figure 1.12 shows these two extremes, and you may be somewhere on this spectrum. Moving forward with your migraine will need active control. This will need commitment, time and effort. It may not your fault that you find yourself where you are. But you do have a choice how you move forward.

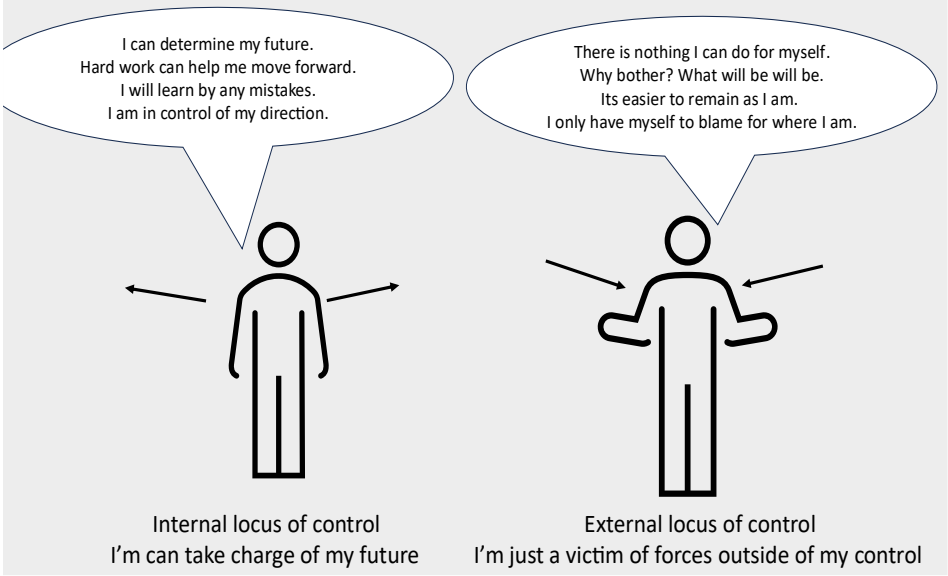


Figure 1.12. How much control do you feel you have over your problem. You do have a choice how you move forward.

1.8. Everyone is different. Your body will know what it needs.

Because migraine is a complex, shifting interaction of genes, environment, social and psychological factors, no two people are the same in how their migraine effects them and how the suggestions in the handbook will help them. So, there are no straightforward solutions that are right for everyone. You must decide what feels right for you and chart your way ahead appropriately.

This handbook does not offer one simple solution. But more of a toolkit of approaches and their rational that you can explore with the aim of finding what feels right for you. Your body will know what it needs. Don't underestimate the healing potential that is held within it.

1.9. Needing an open mind for the journey

Holistic practices require a mind more open to approaches that our culture has made it difficult for us to accept. We are educated within the rigid framework of modern science, and its undoubted success has crowded out other world views. (How we come to know the world and the basis of the scientific approach is discussed further in appendix A1.)

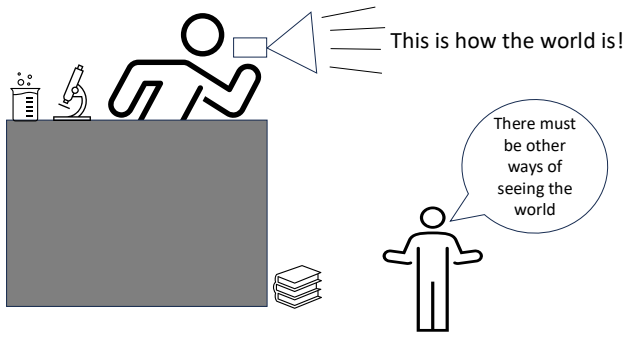


Figure 1.13. We need to mindful that there may be more than one way of seeing the world.

Holistic practices have been used for thousands of years by other cultures. Many are finding a home in modern medical practice, particularly in the areas of chronic disease, pain management and mental health and evidence is emerging to support their benefit.

Approach each suggestion with an open mind and try it out. If it's not for you, then move on. Take what resonates for you and leave what does not. If you are finding you are resisting, perhaps just ask yourself why.

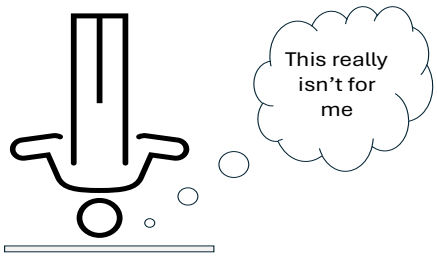


Figure 1.14. The latest Holistic Practice.

1.10. Don't underestimate the challenges.

If you have had severe migraine for some time, change may be challenging. Our bodies hold on to what we know, and any challenge can be perceived as a threat.

It is easier and safer to continue to replay the old familiar record. And how much easier is it just to pop a pill?

It's understandable that you want to get on with a normal life as much as you can in between the troughs of migraine. But this may be perpetuating the story you may be feeding off and prevent you from moving forward.

And don't be afraid what others may think about you as you try out new things.

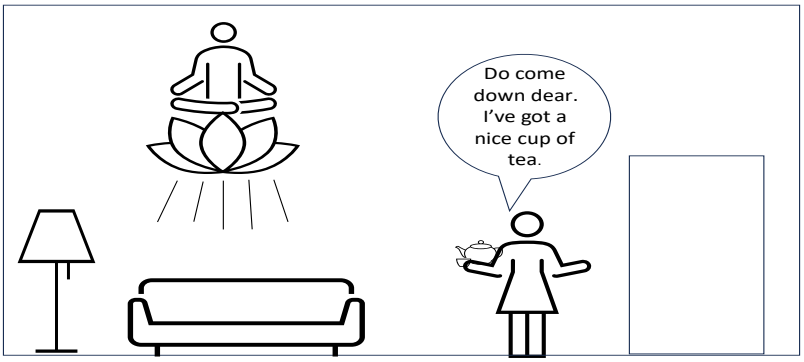


Figure 1.15. Keep an open mind and don't worry what others might think about what you are exploring.

Are you caught in the boom-and-bust cycle? Understandably when you are better you just want to get on with life. Take a moment to step back and think about a new journey. if you keep doing the same things, you'll always get the same outcomes.

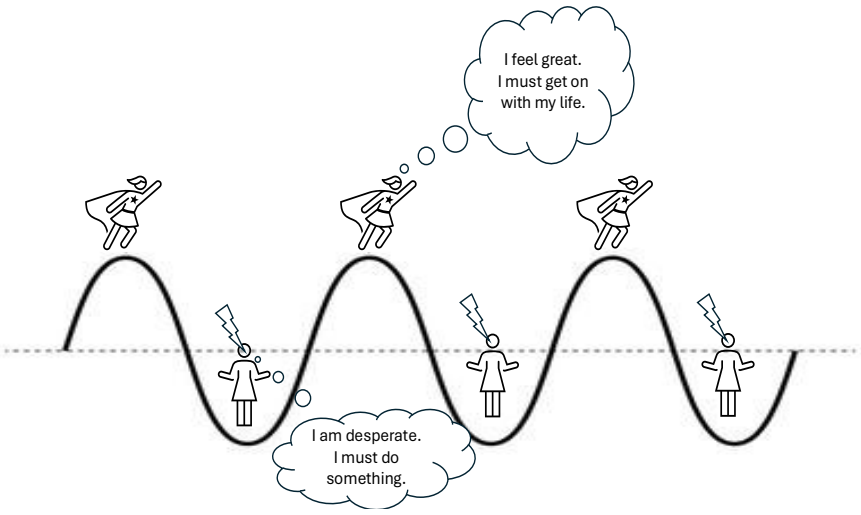


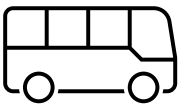
Figure 1.16. The boom and bust cycle

Conclusion to section 1.

This section has set out the migraine landscape and established some basic principles. You are likely to recognise where you are on your migraine journey. In the next section we explore migraine in more detail.

Section 2. Understanding Migraine

This section aims to give you a better understanding of migraine. The first step is to make sure you have the correct diagnosis and whether your migraine is exacerbated by medication overuse headache. We then explore why migraine occurs and the mechanisms that underpin it. Finally, several practical issues around the migraine attack are considered.



2.1 Am I on the right bus?

All headaches are classified into two main types:

- *Secondary headache* (less than 5% of headaches). These are headaches where a well identified problem can be identified. These are often more serious. For example, haemorrhage, blood clot, head injury, brain tumour, infection.
  or
- *Primary headaches* (>95% of headaches.) These are headaches where no clear underlying cause can be identified in the brain. The diagnosis is made on recognising the pattern of the headache. The three main primary headaches are tension type headache, cluster headache and migraine. (See table 2.1). A comprehensive description of all headache types can be found at:

https://ihs-headache.org/en/resources/guidelines/

Features	Tension Headache	Migraine	Cluster Headache
People experiencing each year	Common 70%	14%. Females>males.	0.1%. Males>females
Location	Often at the back of the head or around it	Anywhere in the head. Can be in the face. One or both sided	Always one side, usually around the eye
Characteristic of pain	Dull or tight like a band	Severe, often throbbing	Excruciating
Duration	Very variable. Minutes to days	4-72 hours (shorter in children)	15 minutes to 2 hours
Associated features	None	Aura in 30%. Nausea or vomiting, light, sound, movement touch sensitivity	Red, drooping or watery eye; runny or blocked nose; swelling of face or inside ear. Agitation.

Table 2.1. Some differences in the common primary headaches.

2.2. Confirming the diagnosis of migraine

The pain of migraine is often pulsating and can occur on one or both sides of the head or be felt in the face. (Studies suggest that 80% of pain diagnosed as chronic sinusitis is migraine).

The formal criterion, used for research studies is shown below. This is rarely used in practice where - **any episodic and problematic headache that has features of nausea or enhanced sensitivity with the pain to light, sound or movement is very likely to be migraine.**

I. At least 5 attacks fulfilling criteria II-V
II. Headache attacks lasting 4–72h (untreated or unsuccessfully treated)
III. Headache has at least two of the following characteristics:
- o One sided
- o Pulsating quality
- o Moderate or severe pain intensity
- o Aggravating or causing avoidance of routine physical activity

IV. During headache, at least one of the following:
- o Nausea and or vomiting
- o Photophobia and phonophobia

V Not attributed to other disorder

Formal criteria used for diagnosing migraine. This is rarely used in practice.

Tension headache and migraine in the same person is common, particularly with increased migraine frequency. When migraine becomes chronic i.e. persistent, tension headache, stabbing pain and migraine like pain can all coexist, and the picture is often complicated by medication overuse headache. Very rarely, a person can experience both cluster and migraine or can switch between the two.

2.2. The stages of the migraine attack

Four stages can be recognised. Not all phases will be experienced during every attack or some not at all.

i). The pre headache or prodrome. This is a warning sign and consists of non-specific features search as yawning, lethargy, mood change, restlessness, food cravings, thirst etc. It can occur many hours even days before the onset of pain. Often prodrome features can be mistaken for triggers.

ii). The aura. Experienced by 30% of people. See below.

iii). The headache phase. Often pulsatile in nature. Most commonly on one side of the head but can be on both sides or radiate into the face or neck.

iv). The post headache or postdrome. Often lethargy and lack of energy but can include high levels of energy or elation.

Sometimes symptoms can be bothersome in between attacks. (Known as inter-ictal symptoms). The brain is still not functioning normally. Symptoms can include brain fog, memory problems, word finding difficulties, dizziness and sensory sensitivities.

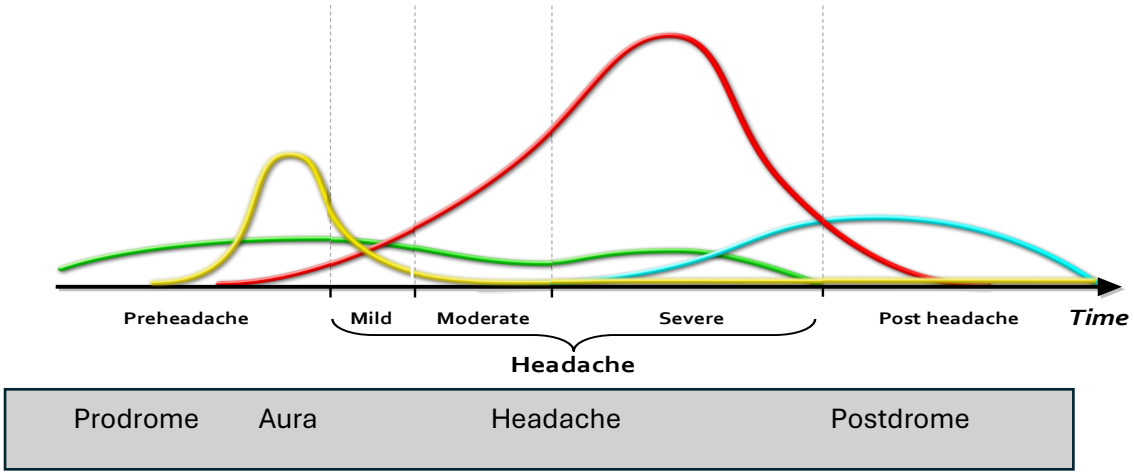
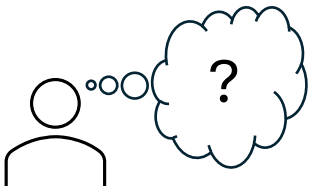


Figure 2.1. Stages of the migraine attack



Want to know more about the phases of migraine?

National Migraine Centre Heads Up Podcast. Series 1, episode 1.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

Peng KP. Redefining migraine phases - a suggestion based on clinical, physiological, and functional imaging evidence. Cephalalgia. 2020 Jul;40(8):866-870. doi: 10.1177/0333102419898868. Epub 2020 Jan 13. PMID: 31928343; PMCID: PMC7366426.

2.3. What type of migraine do you have?

Migraine is classified as *episodic or chronic* and *with or without aura*.

Episodic migraine - distinct migraine attacks with pain free intervals. The most common migraine frequency is 2-3 a month.

or

- *Chronic migraine i.e. persistent migraine* – Headache on more than 15 days of the month of which at least eight days are migraine or migraine like. Approximately 10% of people with migraine will have chronic migraine.

Over time, episodic migraine can become more frequent transforming into chronic (more persistent) migraine (see figure 1.4.). Often other types of headaches can also develop. For example, a dull background headache (often called a tension type headache) or a sharp stabbing headache. It is best to think of all of this as part of a migraine spectrum. Headache caused by overuse of medication can also add to the mix.

Both types of migraine are associated with other medical conditions that can become problematic. These associated problems are explored in section 12 and are particularly common with chronic migraine.

For people with occasional episodic migraine, simple medical treatments and lifestyle approaches may be sufficient. However, as migraine becomes more frequent, the focus shifts from a simple physical fix to an approach that includes a broader holistic framework that seeks to integrate a body that has become out of harmony.

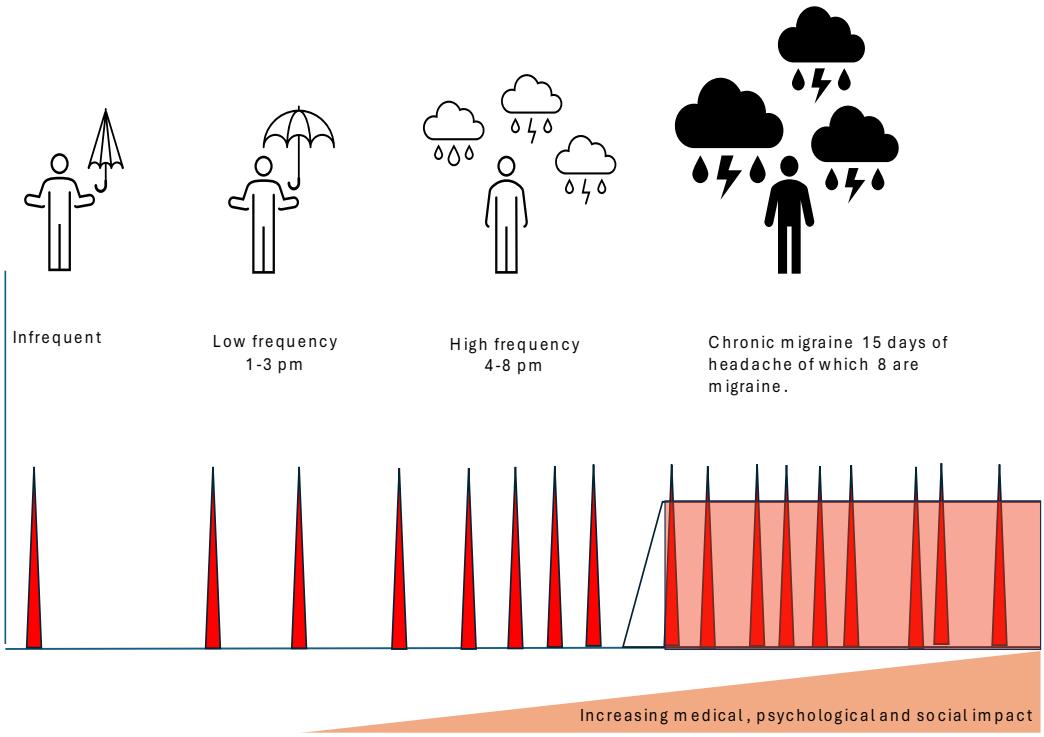


Figure 2.2. With increasing frequency of attacks (red spikes), migraine can transform into chronic or persistent - background headache (red shading) on top of underlying migraine. Other associated medical, psychological and social problems become more common. Medication overuse headache due to taking too many pain killers is common.

The second classification of migraine is

ii). Migraine with or without aura

An aura is a passing neurological sensation caused by a wave of electricity travelling at approximately 3-6 mm per minute across the surface of the brain. It occurs in up to 30% of people with migraine.

Migraine with or without aura may fluctuate during a lifetime as can the type of aura. Auras are usually of one type but can be mixed with more than one type experienced. Features of aura are shown in table 2.1:

- Develops gradually over 5–30 mins. (In contrast to abrupt-onset stroke or transient ischaemic attack (TIA)).
- Typically comes before the headache phase but less frequently can occur at any time during the migraine attack.
- Aura symptoms can occur in the absence of headache in 20% of people with migraine but also in people who do not have migraine, particularly above the age of 50.

- Auras typically last less than 60 minutes but can be longer. In rare cases they can go on for days.
- Visual aura is the most common. They can migrate across the visual field, rotate, oscillate or flicker, and be of varying brightness. Areas of blindness can occur.
- Pins and needles are the second most common aura. Usually starts in the hands and migrates up the arm. It can involve the face, lips and tongue and is often followed by numbness.
- Speech and language problems occur in 10% of auras.
- Muscle weakness including paralysis can occur (hemiplegic migraine).
- Delusions and disturbed consciousness are particularly distressing but are rare.
- More than one type of aura can occur in a migraine attack.

Table 2.1. Features of aura.

2.4. What's going on inside the brain during an attack?

Five areas of the brain are implicated in the migraine process as shown as figure 2.3. However, how these processes interact to cause the migraine phenomenon is poorly understood.

1. Hypothalamus. The prodrome or pre-headache symptoms originate from here.

2. Migraine midbrain centre or "migraine generator." This is triggered in a migraine attack sending out signals along the Trigeminal nerve to the lining of the brain.

3. This activation of the Trigeminal nerve causes inflammation and pain of the brain lining. There are no pain fibres in the substance of the brain. Only the brain's lining can feel pain.

4. A wave of electricity across the surface of the brain causes an aura. Not everyone with migraine will get this.

5. There is increased sensitivity of the nerves on the outside of the head in the scalp. This is called "peripheral sensitisation."

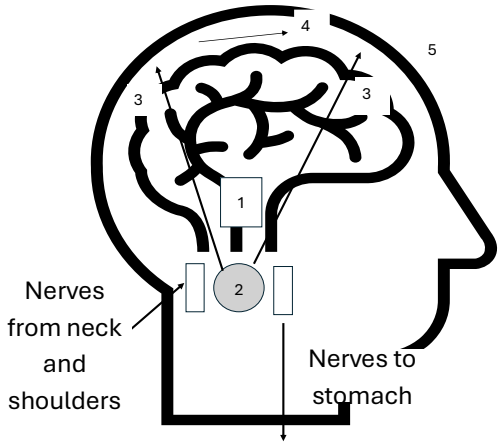


Figure 2.3. Important areas of the brain implicated in the migraine episode.

2.5. Migraine and the neck and shoulders

Over 80% of people with migraine experience neck or upper shoulder pain. This is due to the nerves of the ligaments and muscles of the neck and upper shoulder ending in the same area of the brain as the migraine generator. (See figure 2.3).

There are rarely problems with the neck, but the pain reflects low level firing of the migraine centre, not sufficient to generate an attack but enough to send pain signals to the neck and

upper shoulders. This can cause trigger spots and muscle spasm which in turn feeds back into and stimulates the migraine centre. Massage can help to alleviate this cycle, but other therapies are unhelpful.

2.6. Migraine and the stomach

The nerves that control the stomach originate in the brain close to the migraine generator. (See figure 2.3). When this generator is triggered, these nerves are activated causing nausea or vomiting. This has an important implication for treatment, as drugs taken by mouth will not be absorbed well.

2.7. Migraine and your genes

A predisposition to migraine is predominantly genetic although it can be difficulty untangling the impact of genes from the environment. If you have a close family member with migraine, you have up to an 80% chance of having the problem.

Apart from a rare condition called familial hemiplegic migraine which is regulated by a single gene, many migraine genes interact in a complex manner to causes a migraine disposition but how they do so is poorly understood.

It was always thought that the way genes control our cells is fixed, but the emerging science of epigenetics suggests that the action of genes can be enhanced or suppressed by a range of factors including hormones and chronic inflammation. This adds even more complexity to an understanding what is going on.

2.8. Does my migraine need investigating?

There is always a concern that headache reflects a serious underlying cause, particularly a brain tumour.

Why not scan everyone with headache? There are two considerations:

i). Incidental abnormalities are deviations from normal but of no relevance to the migraine or cause for concern. They occur in over 15% of scans and can be a cause of considerable unnecessary anxiety.

ii). Health care resources are limited, and money invested in one area will always be at the expense of spending it elsewhere.

When a person with migraine presents to their GP, the chances of an underlying tumour are less than 1 in 1000. If there are no abnormal neurological symptoms and examination is normal, the chances of a tumour are very small.

An important examination is identification of raised pressure in the brain by looking at the back of the eye. This can be done very effectively by an optician, particularly if an optical coherence tomography (OTC) instrument is used.

If you are concerned that things aren't right, discuss things with your doctor.

Two approaches to investigation are available. I). A computerised axial tomography (CAT scan) is based on multiple X rays of the brain, combined into a picture using a computer. It is quicker and more accessible than magnetic resonance imaging (MRI).

ii). MRI is a more sensitive test but takes longer and often less accessible. It is based on analysing the signal from water molecules in brain tissue as they relax following alignment in a strong magnetic field. 10% of people find claustrophobia in the scanner a problem.

2.9. Is my migraine being made worse by taking too many painkillers?

If you take too many painkillers including the migraine specific drugs Triptans, this can sensitise the pain pathways in the brain and lead to additional headache, a phenomenon known as medication overuse headache.

It will occur if over a three-month period you:

- Take any painkiller or anti-inflammatory medication for more than 15 days of the month.
- Take a Triptan on more than 10 days of the month.

The number of days is important and not the number of tablets.

This is a common problem affecting 3% of the population and most people with chronic migraine will experience it at some time. It is

not an addiction to painkillers but more of an understandable dependency. Unfortunately, things will not move forward with treating your migraine until it is addressed. It does not occur with preventative drugs, but these may not work so well if you are taking too many painkillers.

There is no easy management but acknowledging the problem is an important first step. The best option is:

1. Ensure your migraine is adequately managed with preventative medication.

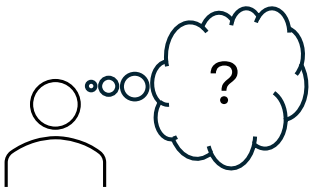
2. Choose a suitable time to stop. For example, when you are not under excessive pressure.

3. Stop abruptly. Tailing off does not seem to be as helpful.

4. The anti-inflammatory Naproxen can be useful to cover this difficult period.

5. Don't be disappointed if you don't manage to do this first time.

6. Switching a Triptan for the new drug Rimegepant to help your migraine attack can be a useful option if you are taking too many Triptans.



Want to know more about medication overuse headache?

National Migraine Centre Heads Up Podcast. Series 1, episode 8.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

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Conclusion to section 2.

This section has described the main features and underlying mechanisms of migraine, a predominately genetically inherited condition. It emphasises that migraine is due to an over sensitive and over vigilant brain, which was once an evolutionary advantage but unhelpful in the environment in which we find ourselves today. Migraine does not routinely need investigation.

Section 3. What is a Holistic approach to migraine management?

The word Holistic can mean different things to different people. The first step is to look to the Greek origin of the word "Holos" which means "whole" and finds a derivation in the words "healing" and "health". In this section I introduce the concept of holistic theory, holistic practice and a holistic approach. All have slightly different interpretations. From the perspective of this handbook:

- *Holistic theory*. This takes as its starting point the idea that everything is interconnected to everything else i.e. *one integrated whole*. Holistic theory takes its inspiration from Eastern philosophies (predominately Indian and Chinese). Here things are viewed as networks and there is a shift to an appreciation of the patterns that emerge from their interaction and the harmony between them.
- *Holistic practice*. This reflects a range of overlapping practises and tools which are built upon holistic theory, focusing on the interplay between thoughts, emotions, body awareness and connection with the external world. *Healing* is seen as a reflection of the body's intrinsic ability to help itself. This contrasts with medical practice that offers external interventions such as drugs. Holistic practices aim to facilitate interconnectedness and harmony both within us and between our inner and outer worlds.
- *A Holistic approach*. This takes a different meaning and is viewed as a range of complementary ways of approaching a problem derived from different disciplines including holistic practices, lifestyle and medical management.

If you don't want to get too bogged down in theory, you can skip this section.

3.1. Holistic Theory

We first explore holistic theory by understanding the difference between things that are seen as complicated or complex, a key departure point from modern science. Although we use these words commonly in everyday life, we don't stop to think about the difference between them. Looking to the original Latin root is instructive.

"Com" – with.

"Plicated" – folded.

"Plexus" – entangled.

Complicated things can be unfolded and be understood by breaking them down into their component parts. You can take it to bits to understand it, like a car.

Science and modern medicine views everything as complicated. We can reduce things into their component parts, understand them, and build up a picture of the whole from the sum of the parts.

An alternative viewpoint is to see things as complex. i.e. a network that is changing with time in a way that cannot be understood by breaking it down but from which patterns emerge. Not only are complex things entangled but breaking them down destroys the nature of what you are trying to understand. (This approach is explored in appendix A2 if you want to know more.)

Examples of things that can be appropriately viewed as complex systems are: the body; the brain; a woodland; a social gathering; human organisations.

A key insight from holistic theory is that many of our problems are due to a disconnection. Between our brain and body, with others, with our environment, with our supressed emotions and our sense of who we are. These themes,

their implications for migraine and how holistic practices can help will be explored in subsequent sections.

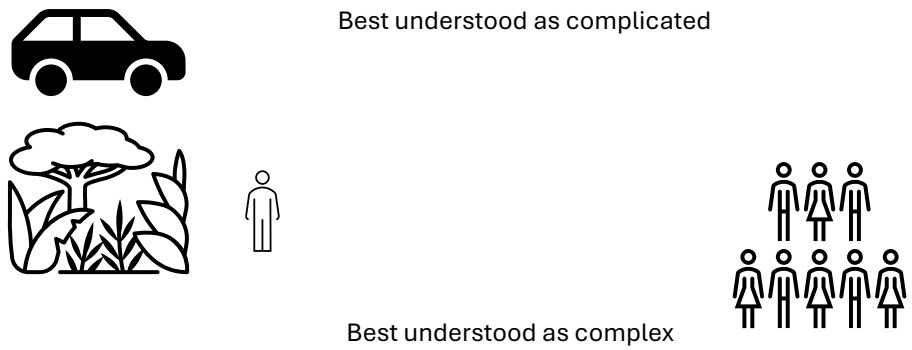
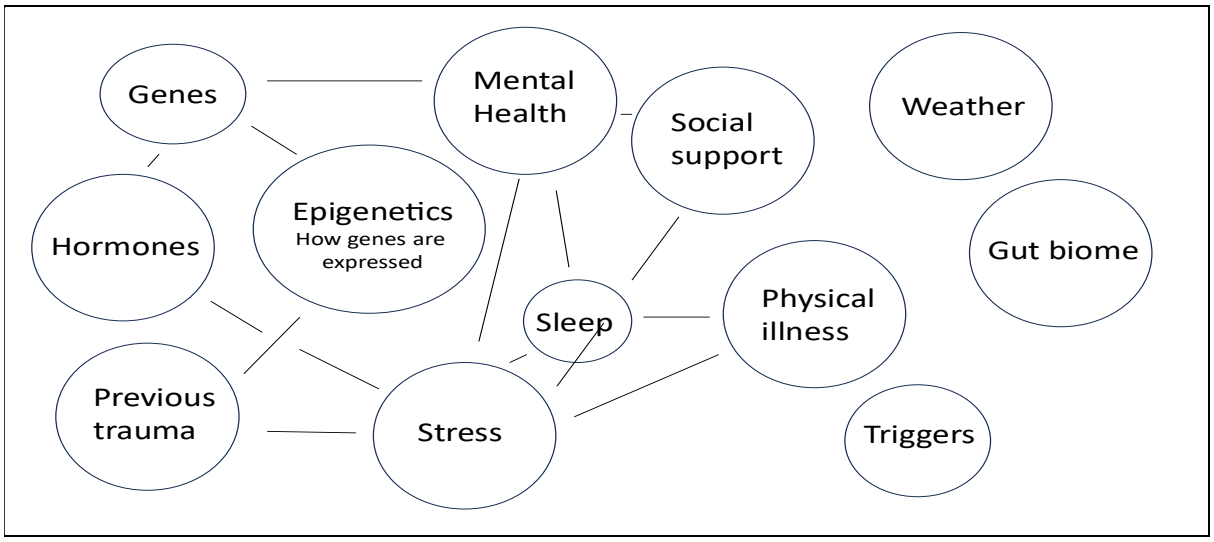


Figure 3.1. Complicated and complex. Complicated systems can be best described by breaking them down into their component parts. When systems are best seen as complex, this is problematic.

Some important factors in migraine are shown in figure 3.2. A traditional approach views these interactions as complicated whereas a holistic practice would view them as complex. Both approaches can give important insights.



3.2. Some of the interacting factors that can be involved in migraine giving rise to a complex system that cannot always be understood by reduction into the component parts.

3.2. Holistic practice.

Holistic practice builds upon holistic theory and offers different perspectives on the meaning of health and its attainment. The practices are drawn mainly from Eastern (Chinese and Indian) traditions, many of which have entered mainstream medical practice.

Traditionally, health has been seen as maintenance of normal function – a "fix it" approach. Health includes physical, social and psychological well-being and ability to flourish. Holistic practice takes a different starting point and views health as an integration or harmonisation of interacting systems, whether it be internal parts of the body or between the body and the wider external environment. Or to quote an ancient Chinese definition, "*A*

dynamic harmony between inner and outer worlds."

Holistic interventions are aimed at restoring this harmony. (This is explored from a theoretical perspective in Appendix A2.)

3.3. A Holistic Approach.

In this context, holistic takes a different meaning. A holistic approach infers a broad range of disciplines which include holistic and medical practice combined with lifestyle management. Figure 3.3 shows the five pillars of the holistic approach described in this handbook. Inevitably there will be overlap between them, but they are a useful framework for moving forward. Some approaches will resonate with you more than others.

These pillars are underpinned by a foundation based on a more appropriate sense of how you see yourself or your "sense of self." This can often change with migraine and many other illnesses in ways that are not always helpful.

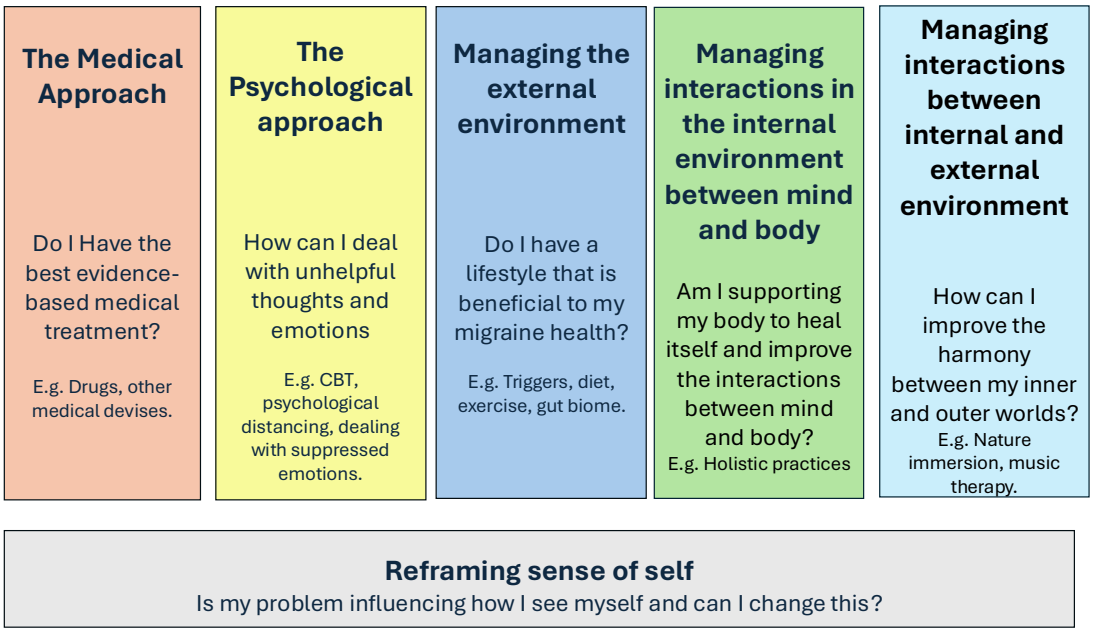


Figure 3.3. The five pillars of a holistic approach underpinned by a solid foundation.

These pillars are explained in a little more detail below and form the basis of subsequent chapters.

i). The medical approach

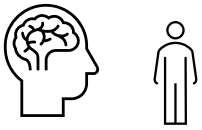
A medical approach uses drugs and medical devises, developed and tested using observation and experimentation. This has been the prevailing method, but due to its success, other approaches that may be useful have been crowded out.

ii). The psychological approach

Psychology is the study of the mind and its mechanisms. Of particular importance is how thoughts and emotions interact in ways that are not always helpful.

iii). **Managing the external environment**

Here the focus is on maintaining a beneficial environment to help prevent migraine. Due to the complexity of environmental interactions, the scientific approach to a clear understanding can be more challenging.



iv). Holistic practice. Managing favourable interactions between brain and body in the internal environment

Here, healing is seen as utilising the body's intrinsic ability to help itself and being able to communicate what it needs. The focus is on harmonising mind and body with "mind-body" practices.

If you find healing a difficult concept, consider as example evidence from one of the latest migraine preventative drugs. The active drug gives a significant reduction in migraine in 49% of people, but an identical dummy or placebo drug in 41%[1]. (Appendix A3 tells you about references to scientific information and how you can access them if you want to investigate things in more detail.)

The drug has a clear benefit, but we should be asking "what is going on in the 41% of people that respond to the dummy drug, and how can we mobilise this healing effect?"

v). Holistic practice. Managing interactions between internal and external environment

Hoe we interact with a wider external environment is important for our health and sense of self. For example, there is now evidence that our interaction with nature brings health benefits. More contentious is the suggestion that there are areas of life that transcend conventional notions of scientific understanding and are not accessible to measurement. For example, energy healing such as Reiki.

vi). Rewriting the story and reframing sense of self

As migraine becomes more burdensome it can impact upon the way we feel about ourselves. Our migraine experience can become who we are and prevent us from moving forward.

[1] Croop R, Lipton RB, Kudrow D, et al. Oral Rimegepant for preventive treatment of migraine: a phase 2/3, randomised, double-blind, placebo-controlled trial. The Lancet. 2021 Jan 2;397(10268):51-60.

Section 4. Getting to grips with some basic theory.

In this section, I introduce some basic theory. Although it may be a bit heavy going, it gives us a solid grounding into what is happening. It will also help to explain how many holistic practices work.

There are three main themes:

Section 4A). An explanation of how the nervous system works and the relevance for migraine and its management.

Section 4B). The concept that the mind, brain and body are best viewed as one integrated unit.

Section 4C). The concept of chronic inflammatory load induced by a wide range of stressors, and its impact on migraine.

Finally, I integrate these insights into a common framework to help you understand what is going on in migraine and how holistic practices can help.

The important insights to take away are shown in table 1. I'll unpack them slowly in the accompanying online programme.

- The mind, brain and body are appropriately viewed as one complex network rather that separate parts.
- Physical, social and psychological stressors can build up to cause a chronic inflammatory load - our "stress buckets." Migraine is an inflammatory process and contributes to this process.
- This inflammatory load is held in the brain and body. It can interfere with how the brain functions and interprets signals from the body which can lower the migraine threshold and exacerbate its associated problems.
- A holistic approach can help to address these unhelpful mechanisms by quietening the brain, reducing inflammatory load and reducing brain energy requirements.

Table 4.1. Key points of section 4.

Section 4A. Understanding the Nervous System.

In this section, we start by describing some key components of the nervous system before thinking about how the brain works and when it may not serve us quite so well. (Appendix A4 expands how the nervous system works in more detail if you want to know more.)

An exploration of the nervous system may not be your cup of tea, but it can help to understand how many holistic practices work.

4.1. Basic components of the nervous system.

1. Nerve cells

The fundamental building block of the nervous system is the nerve cell or neuron. The brain has some 86 billion neurons all have which have many branches that interact with other nerves.

Signals coming from the outside world (sight, sound, taste, smell, touch, pain, temperature) and signals constantly monitoring the internal state of our body, are processed before sending messages back to muscles that affect action.

The signalling process along nerves is electrical but between nerves is chemical. Information transmission between nerves is undertaken by chemical signalling compounds known as neurotransmitters. This process is an important site for drug action.

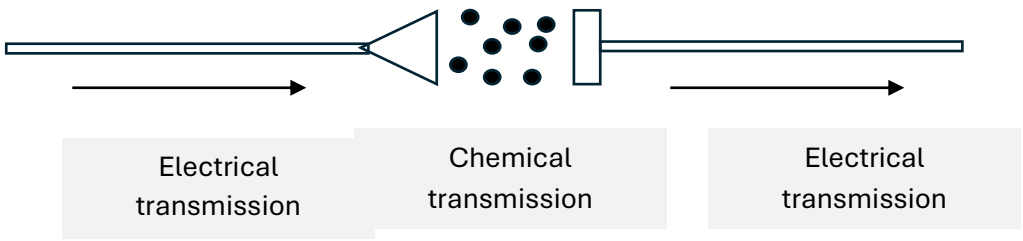


Figure 4.1. Nerve transmission is electrical along the nerve and chemical between nerves.

Migraine drugs act:

- By blocking the chemical transmission system. For example, Gepants block a signalling chemical known as CGRP.
- By interfering with electrical transmission along the nerve. For example, anti-epilepsy drugs such as Topiramate.
- By interacting with internal cell processes. For example, Magnesium and Coenzyme Q10 act on the energy generating pathways inside the nerve cell.

There are two parts to the nervous system:

1. The brain or central nervous system. This is the control centre where cognitive and emotional functioning takes. Cognition includes perception (integrating information from the senses), attention (selecting relevant input), memory, learning, thinking and planning. Some of this activity is under conscious control but most takes place sub-conciously. Emotions are evolutionary older complex patterns of behaviour directed at survival, reproduction and social behaviour.

2. The peripheral nervous system. This system is found outside of the brain and has two parts.

i). The autonomic nervous system is an involuntary system (it runs autonomously) controlling internal body mechanisms. It consists of *sympathetic* and *parasympathetic* parts.

The sympathetic system comprises of nerves that exit from the spinal cord and are responsible for activating "fight or flight" body mechanisms. For example, increasing heart rate, breathing rate, blood pressure, sweating. If over activated it can cause fear, panic, anxiety, or anger.

The parasympathetic system is transmitted by the Vagal nerve. This supports immobilisation behaviours such as "rest and digest" and supports social engagement and connectedness. In the extreme it can cause defensive immobilisation (freezing with fear) which can be manifest as dissociation, numbness, depression, helplessness. Normally sympathetic and parasympathetic systems are in balance but in challenging circumstances, they can swing from one extreme to the other – from over activation to immobilisation. As we have seen, people with migraine are more hypervigilant and hypersensitive so they are likely to have more of a sympathetic drive.

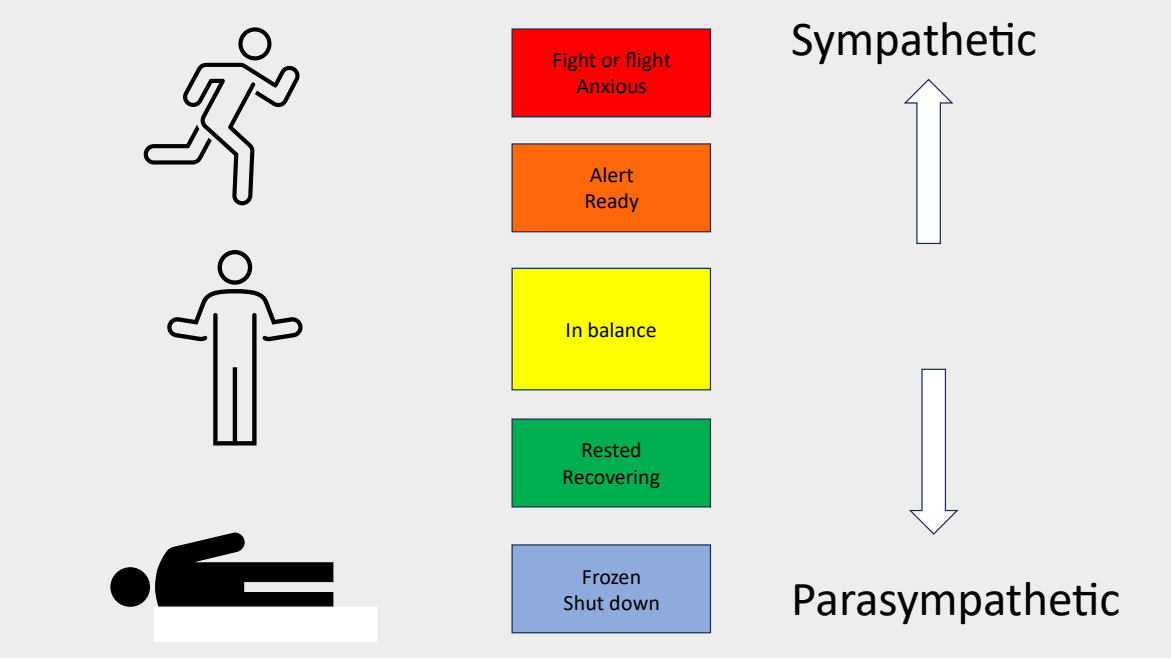


Figure 4.2. Where is your autonomic system functioning? Ideally it should change with the demands placed on you, but you may be stuck in one mode or swinging between the two.

ii). The somatic or peripheral nervous system.

These are the nerves outside the brain and spinal cord that receive signals from sensory organs in the skin and transmit signals to the brain where they are processed. Signals are then sent through motor nerves to effect appropriate muscle action. During a migraine attack, the sensory peripheral nerves can be more sensitive. For example, it can be painful to brush your hair.

4.2. How the nervous system functions.

The next step is to unpack what is happening from a more practical perspective.

There are three basic processes: sensing; processing; and action.

1). Sensing the environment. The brain takes in information continually from our external environment and from within the body. This is a huge amount of information and due to the limited processing power of the brain (processing is very energy hungry), this information must be modulated or selectively "turned down". Our brain focusses on the sensory information it thinks is important and turns down what it thinks is less useful.

People with migraine will scan the environment more rapidly (hypervigilant) and are more sensitive to sensory stimuli (hypersensitive). i.e their volume controls are set higher.

2). Information processing. Incoming information is processed, and the brain decides what it needs to do to achieve its objectives. This is a complex process and is influenced by our experience of what has gone before (memory) and our current mood and emotional state. Processing takes place at our level of consciousness (our thoughts) or below it in our subconscious. Two important networks have been identified which help to control this processing:

i). The task negative network. This supports imagination, memory and reflection. When strongly activated rumination can occur – intrusive and negative loops of thought patterns trapped in cycling between the past and the future. Over-activity of this network can also activate pain networks.

ii). The task positive network. This supports more focussed activity and a more positive mode. When strongly activated, we can lose sense of time, for example when we are absorbed in an activity. Holistic practices, and in particular meditative practices can help to activate this network.

3). Action. We act as a result of this information processing to achieve our objectives.

4). Mood and emotions.

Emotions are evolutionary older, complex patterns of behaviour that have evolved to keep us safe and promote social behaviour. They are designed to be short lived and encourage behaviour that is beneficial to us in the short term.

However, emotions can become inappropriately prolonged and attach themselves to recurrent thoughts. They can lurk in the sub-conscious unaddressed where they are particularly unhelpful.

A mood is an emotional feeling of lesser intensity and longer lasting. For example, depression would be best described as a mood, anger as an emotion.

Our moods and emotions can have an important influence on how we store information, think and act.

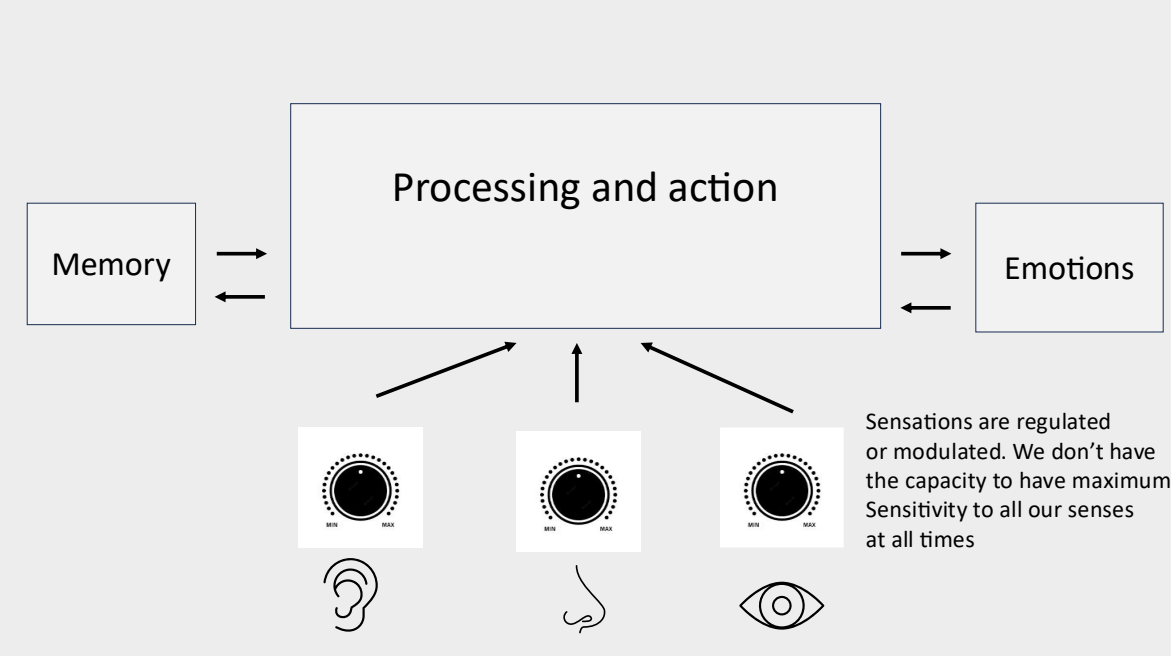


Figure 4.3. Basic functioning of the nervous system. Information is processed consciously or sub-consciously with inputs from memory and emotions.

4.4). The brain as a predictive system.

This concept helps to understand how some holistic practices work.

Current thinking sees the brain not just processing and reacting to the stream of information it takes in but predicting what will happen and acting based on previous experience. It continuously checks these assumptions and corrects its predications if they are not accurate. (See figure 4.6). With experience we shift from a reactive to a predictive mode.

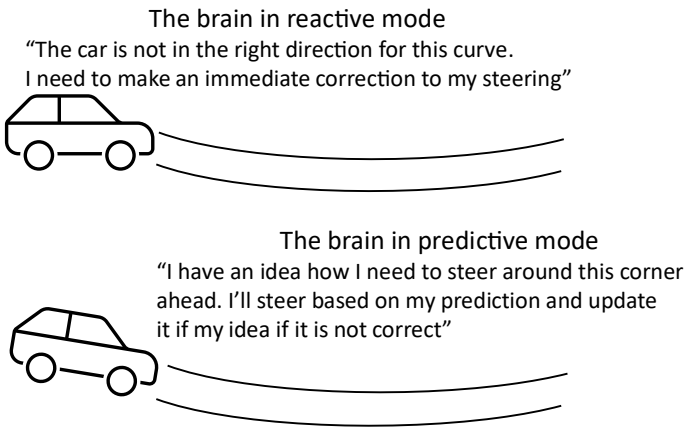


Figure 4.6. Reactive and predictive brain modes.

This phenomenon explains the placebo response seen in all medical interventions where a dummy drug can give a positive response. This response can be enhanced with positive anticipation. For example, if the doctor emphasises how good the drug is.

In summary, the predictive brain anticipates a particular outcome and acts appropriately. If the prediction is not correct it is updated. (This concept is expanded in more detail in appendix A5.)

This mechanism can help to explain many holistic practices such as visualisation, emotional freedom technique and mindfulness that we will meet in subsequent sections.

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Figure 4.7. The power of changing the predictive model or how we anticipate what will happen.

Section 4B. The concept of mind, brain and body as one unit.

Since the evolution of modern science in the late 1600s, it was believed that brain and body functioned as separate units. The mind and our sense of self was firmly set in the brain. The body simply supported this function.

The brain does have a major role in regulating what we do, but it is now generally accepted that the body contributes to our emotional experiences, how we see and analyse the world, and our sense of self.

Brain and body are more appropriately viewed as one complex interacting network. Feelings, emotions and motivations are built from an ongoing conversation between body and brain.

We have always had an intrinsic feel for the contribution of our bodies to how we see the world.

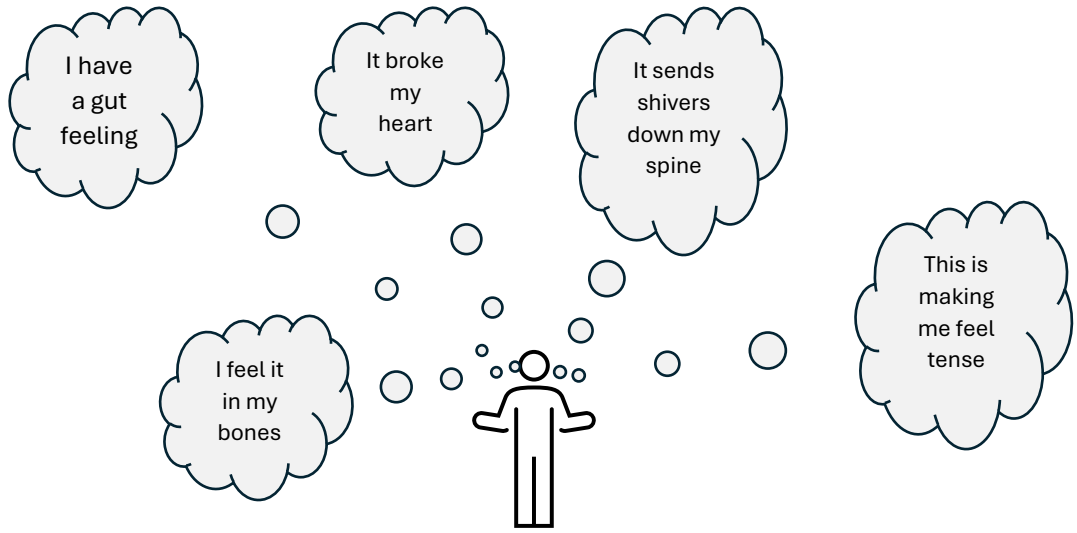

Figure 4.8. Our intrinsic awareness of the importance of our bodies.

The concept of "embodiment" is the idea that we are fundamentally shaped by our whole body's interaction at every level. Rather than our blueprint being driven "bottom up" by our genes, there is a complex interaction both up and down the hierarchy of our biological scales from environment to our genes. See figure 4.9.

For example, the footprint of stress is held not just in the brain but in the whole body, from its impact on heart rate, breathing patterns, gut movement down to consequences at the level of individual cells. When challenged by stress, the impact can be felt or imprinted across the whole body at every level, even in the way in which our genes are expressed. "The body keeps the score."

(An emerging view goes further to suggest that all our organs, cells and networks within cells have intelligent competency. i.e. we have interconnected memory and problem-solving ability that occurs at every level of the body. (See Appendix A6).)

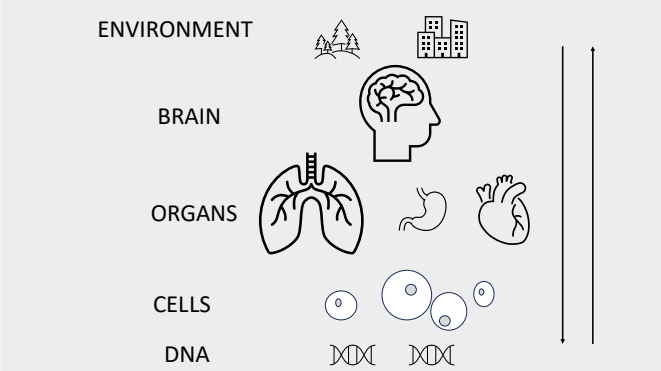

Figure 4.9. The concept of embodiment. The brain and body are one complex network interacting at organ, tissue, cellular and genetic level. Influence can be transmitted up and down the levels. We are the sum of all these parts and not just the processes occurring in the brain.

Section 4C. The inflammatory response and the problem of chronic inflammation.

When the brain encounters a challenge or stressor, a short acting inflammatory defence and repair reaction is mounted which aims to restore the body quickly back to normal function. If this reaction continues to be activated, it can impact upon the way the brain and body function. A stressor can be physical (for example infection, physical injury, disease such as migraine), social or psychological challenge. This can have negative consequences for migraine and its associated problems. Chronic inflammation is an important target for migraine management.

4.5. Getting the language right

We need to mindful about our terminology, particularly as the concept of trauma is so common and the term "stress" is so widely used. Box 1 shows how I want to use the terms.

- Stressor – any challenge to function or wellbeing that provokes an inflammatory response. From an evolutionary perspective this was predominantly physical challenge but now can include social or psychological challenge.
- Trauma – a stressor where the inflammatory process doesn't return to normal levels.
- Acute trauma – a one-time event. E.g. an accident, serious illness, an assault.
- Chronic trauma – repeated trauma that builds up over time or a single trauma whose effect is long term or persistent. E.g. migraine, bullying, neglect, abuse.

Box 1. Some important definitions. Note that the term "stress" is avoided, although I can't resist the term "stress bucket" as highlighted below.

4.6. What is an inflammatory response?

This is a response that evolved to protect us and facilitate repair of damaged tissue. It developed hundreds of thousands of years ago when our challenges were physical and short acting. E.g. Infection, injury, starvation.

It still serves us well from that perspective but unfortunately, it is also triggered by many other stressors that are a such feature of modern life. These can become persistent causing the buildup of inflammatory load or our "stress bucket." Stressors now include a wide array of physical, social and psychological challenge. (Migraine is an inflammatory process and contributes to this process).

The inflammatory response comprises of three elements:

i). Activation of nerve pathways, and particularly the autonomic nervous system.

ii). Activation of hormone pathways. For example, the production of adrenaline and cortisol.

iii). Activation of complex cellular and by chemical inflammatory pathways known as the "cytokine system."

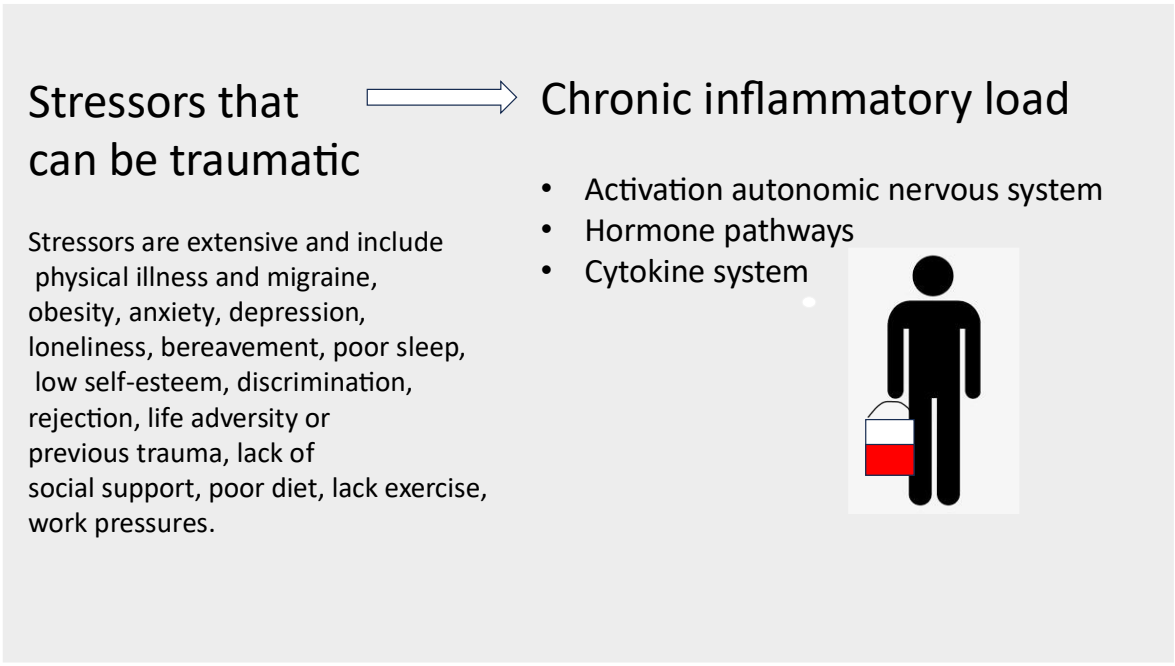

Figure 4.10. Important physical, social and psychological stressors on the body causing a chronic inflammatory load. We all carry our stress buckets – how full is yours?

The activation of these systems has consequences across the whole body. For example, heart rate, blood pressure and breathing patterns, bowel motility, muscle tension, down to impact at the cellular level as explained in section 4B. Usually, the inflammatory process does its job and returns to normal. However, for an unknown reason, some single challenges do not return to normal or more commonly, repeated challenges cause the response to remain active leading to a chronic inflammatory load. A stressor is known as a "trauma" when the response doesn't return to normal

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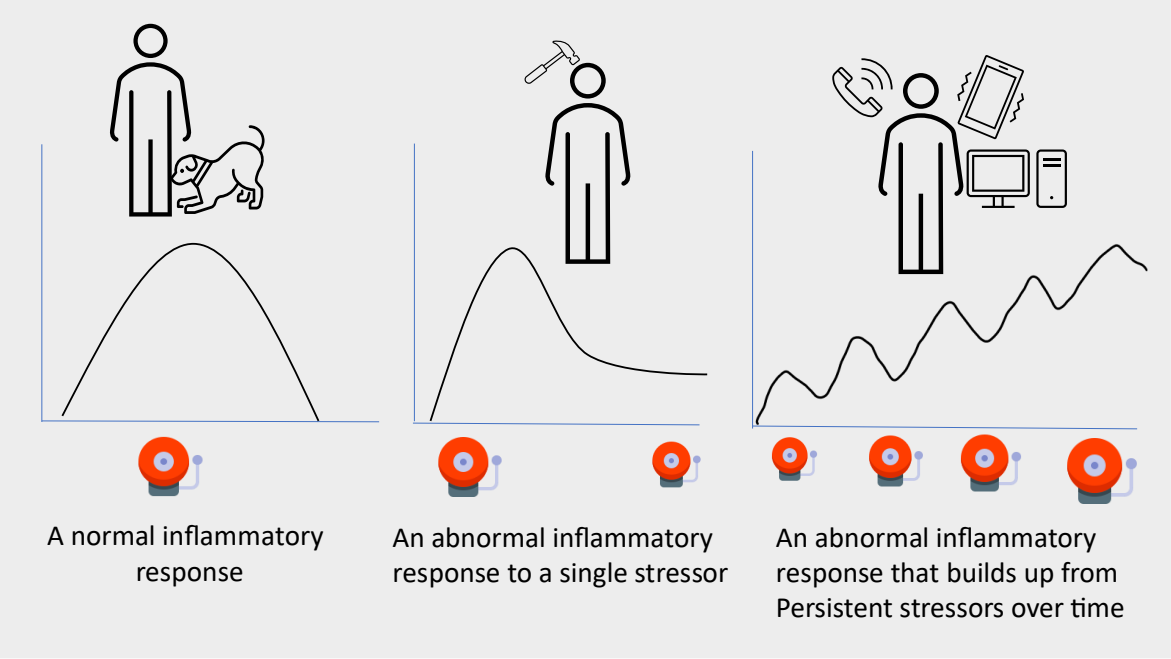

Figure 4.11. Normal and unhelpful inflammatory responses. The three possible responses to a stressor are:

i). A normal response to a single stressor, e.g. an infection, a physical injury or illness.

ii). A response to a single stressor which doesn't return to normal (a trauma), E.g viral infection, head injury, physical or psychological traumatic event.

iii). A build-up of inflammation over time with repeated stressors (repeated traumas) which can be quite minor. Migraine itself is a stressor.

4.7. The effects of chronic inflammatory load

Chronic inflammation can have a harmful effect on the body from brain to individual cells. (A useful metaphor is to consider a car in first gear. This is appropriate for a short time when starting but imagine the strain on the engine if the car was continually in first gear),
The consequences are:

- Lowering the migraine threshold making you more susceptible to an attack. The migraine alarm is triggered more easily.
- Impacting on the brain's processing ability. To resolve this, the brain amplifies incoming signals (as we might turn up the volume on the radio if it's not working properly). This leads to a vicious cycle of more migraine and a greater body sensitivity, exacerbating issues such as fibromyalgia, irritable bowel disease.
- Misinterpreting body signals that are a result of this inflammatory load. For example, increased heart rate is interpreted as anxiety.
- Patterning unhelpful, defensive responses and behaviours based on challenging past experiences.

Putting it all together.

In this section I'll try and pull everything together that we have met in Section 4.

1). When a stressor challenges us, whether it be physical, social and psychological, we mount a defensive inflammatory response which is designed to protect us. This response activates nervous system, hormone, cell and chemical pathways.

2). If the inflammatory response does not return to normal, we call the stressor a trauma and we maintain a state of chronic inflammation. Our "stress bucket."

3). This chronic inflammatory load is held not just in the brain but across the whole body - "The body keeps the score."

4). This inflammatory load compromises the processing ability of the brain and increases the sensitivity of incoming signals. This leads to a lower threshold for triggering migraine and problems such as irritable bowel syndrome and fibromyalgia.

5). As the body thinks it is under continual threat, the autonomic nervous system shifts towards more of a sympathetic mode ("fight and flight") or swings between sympathetic and parasympathetic that can cause a tendency to swing between anxiety and depression.

6). This over activity increases the energy demands of the brain. This can lead to feelings of lack of energy or lethargy as the body attempts to conserve energy. It also sensitises the migraine response making attacks more likely.

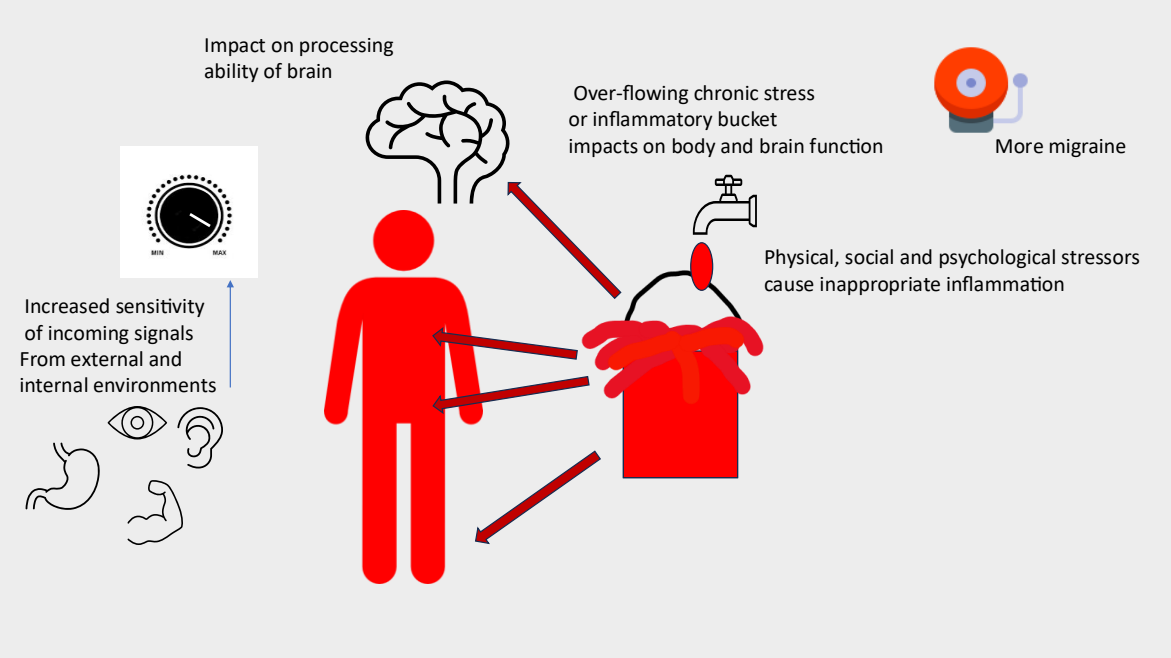

Figure 4.13. Chronic inflammation sensitises body and brain.

Figure 4.14 outlines the path to chronic migraine based on an accumulation of stressors and increasing inflammatory load. We are all somewhere on this path whether we have migraine or not. Many people with chronic migraine will recognise it.

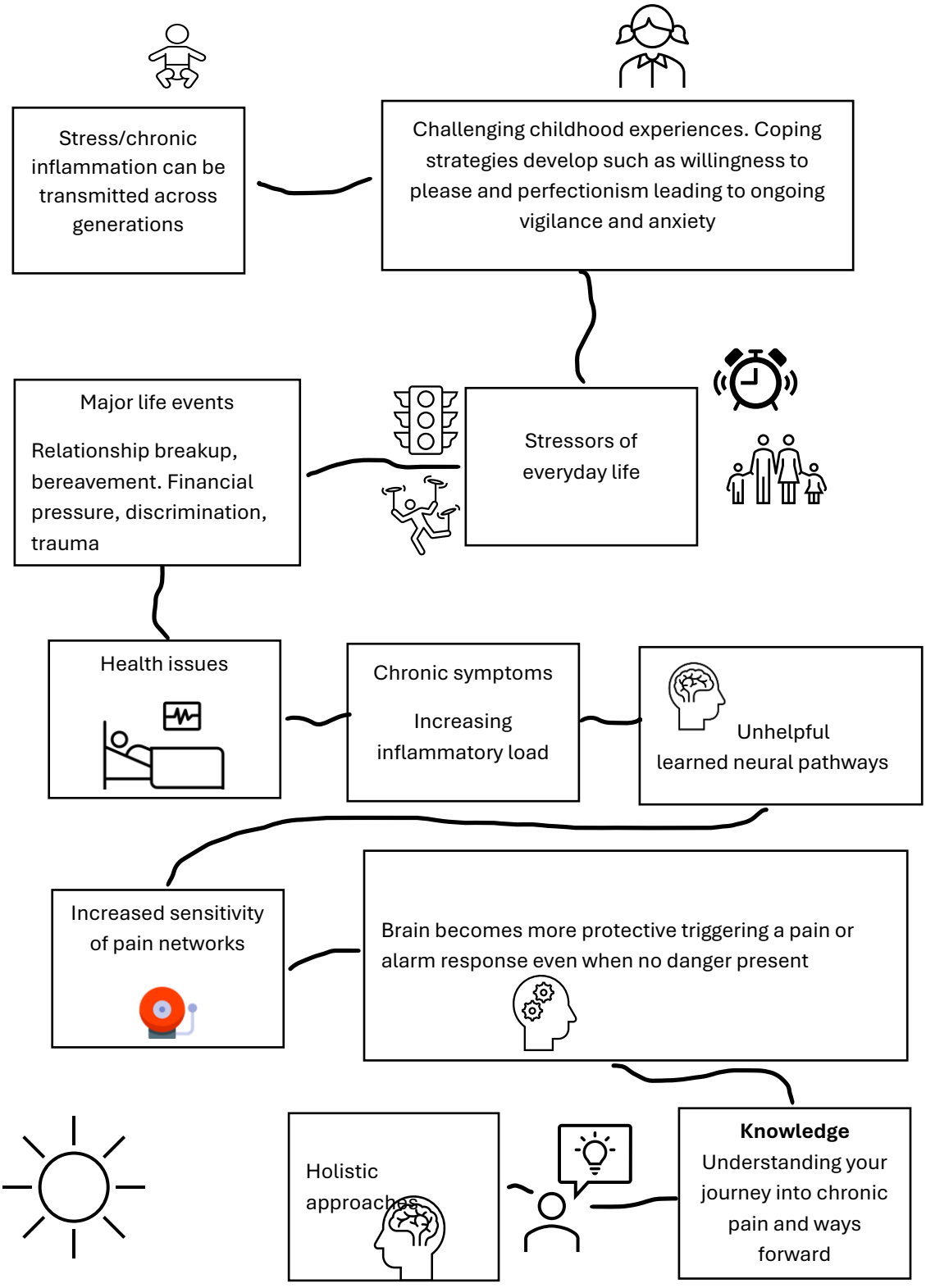

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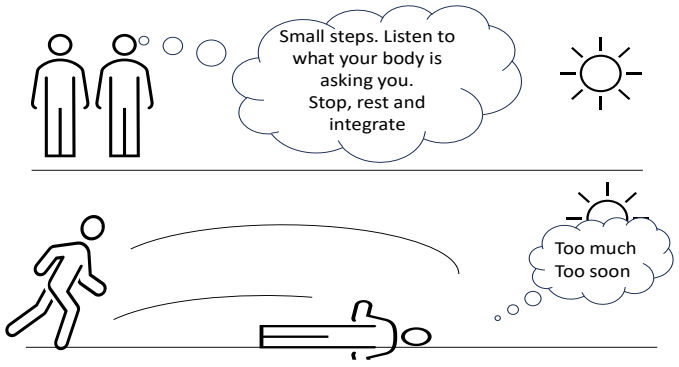
Figure 4.14. The pathway to chronic migraine and hope for the future

How do we address this route to chronic migraine with a holistic approach? We take the first steps in the next part of the handbook.

PART II). TAKING BACK CONTROL

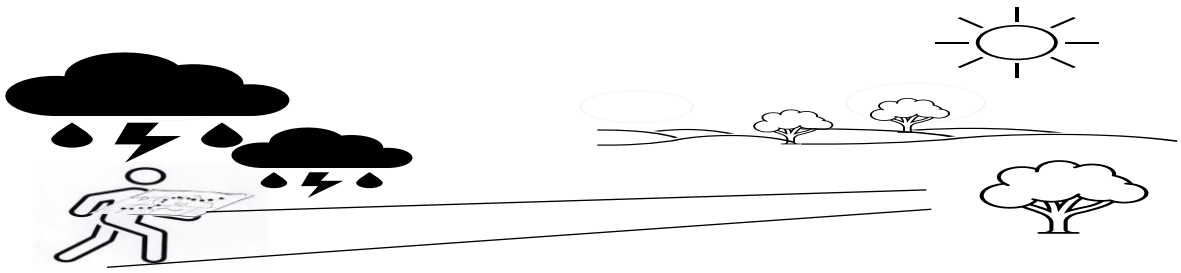
Having established the groundwork, we are now ready to move on to taking back control of your migraine. There is no right or wrong way. See what is on offer and take what feels right for you.

However, new challenges and concepts need integration – the space to mentally and emotionally take things in and digest them both consciously and sub-consciously.



Section 5. Taking the first steps on the journey

We start out on our journey by establishing a baseline and exploring some initial steps. First, an invitation to think about a journal or keeping a reflective diary to record your journey. We then discuss the differences between setting an intention and defining goals before describing some simple holistic practices you may like to consider as a starting point.



5.1. Journaling – keeping a reflective diary

You may find it helpful to map out where you are and keep a record of your journey. Journaling is different from keeping a diary which is a factual record of events that take place. It encourages you to write more freely, reflecting on how you feel about things and your emotions related to them helping to clear unprocessed thoughts and emotions.

Research has shown a wide range of benefits when individuals write about their experiences. They include thinking more clearly; better being able to understand your thoughts and emotions; better management of traumatic events and identifying sources of stress.

- Don't worry where your writing may take you. Let your thoughts flow freely.
- Handwritten notes are important rather than putting your thoughts down digitally. Writing has been shown to facilitate brain re-processing in a way that a computer input cannot.
- Sometimes we can meet resistance when writing but just notice this resistance without judgement and allow yourself to lean into the process.
- Some people may prefer to keep voice notes. Recording your voice may be a more natural way to express yourself.

Here are some initial questions you may like to journal about if a prompt would be helpful. Answer these questions as honestly as with as much detail as possible. Just put down whatever comes into your mind rather than think about it first.

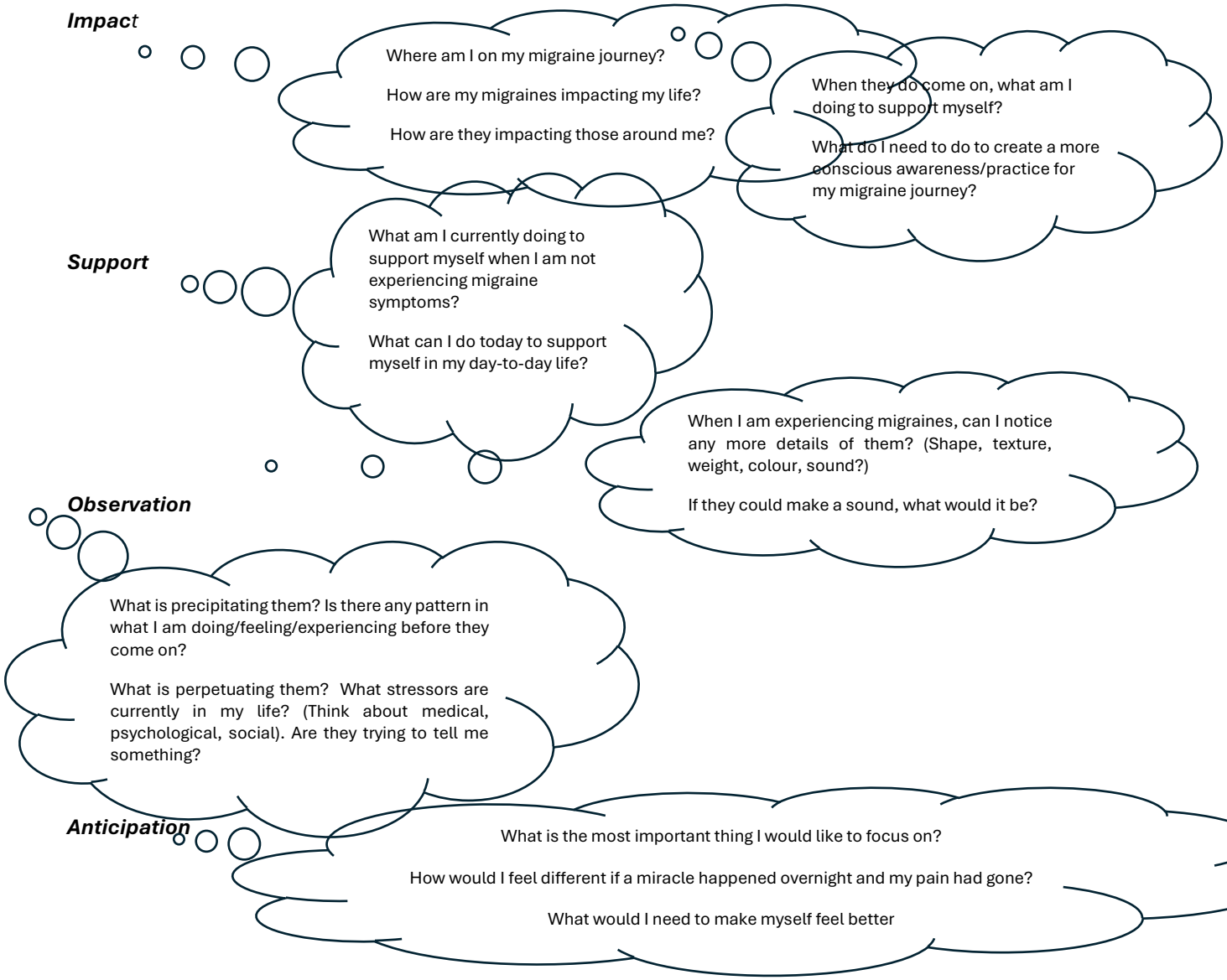


Figure 5.1. Some things to journal about.

5.2. Setting an intention

Our next step is to focus on how we want to start moving forward. The traditional approach is based on setting specific goals, measurable targets you aim to achieve and focus on. They usually come within a structured plan and timeline. For example, "I want to reduce the number of migraines I have each month by 50% at the end of six months." There is nothing

wrong with keeping goals and you may wish to monitor progress with a simple measure that you can make a note of in your journal as your healing journey progresses. (Figure 5.2 gives some other ways to measure progress.)

i). A simple score - My migraine is having an impact on my life:

0 (not at all).....10 (the worst I can imagine)

ii). The migraine impact disability assessment test (https://headaches.org/wp-content/uploads/2018/02/MIDAS.pdf)

iii). The headache impact test. (https://headaches.org/wp-content/uploads/2024/05/HIT-6-1.pdf)

Figure 5.2. Measures of migraine impact.

However, setting goals may set you up for failure and continuation of the boom-and-bust cycle. Setting an intention is a different but complementary practice to goal setting and more suited to a holistic approach.

The focus is creating an environment for how you want to be or feel from moment to moment, your underlying values that direct your behaviour, and the kind of person you aspire to be. They're more about how you are on the journey and how you want to approach it, in the present rather than a specific future outcome in the future. It shifts the focus from the destination to the journey itself.

We will revisit this concept in more detail in section 11

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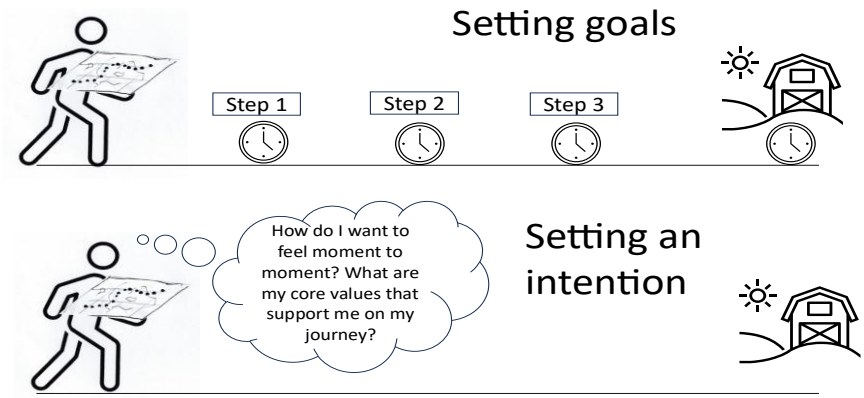


Figure 5.3. Setting goals and setting intentions. From what am I doing to who I am being.

It is important to be mindful of the language you use. See figure 5.4.

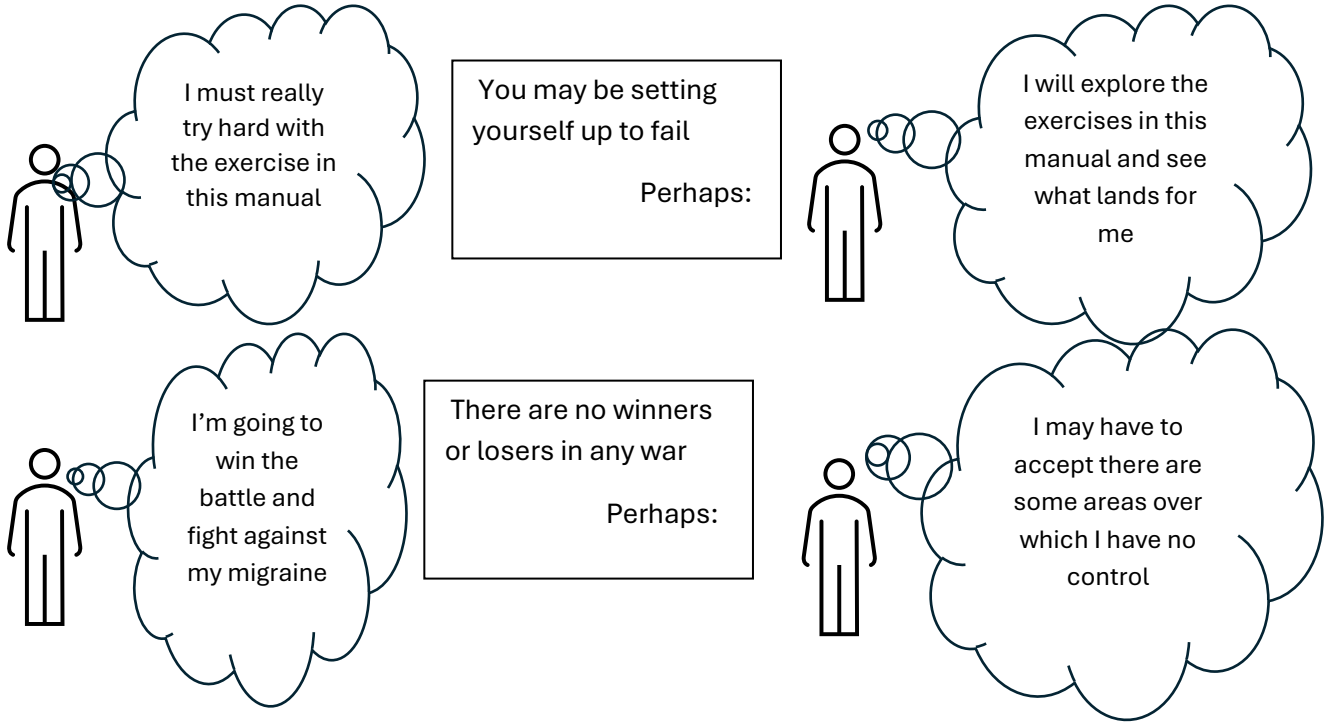


Figure 5.4. Be mindful of the language you use

Audio Exercise

What is the difference between an intention and a goal or objective? Here Georgie explores what this means and guides us through an intention setting exercise. It is an exercise to ascertain what your body needs and what feels right for you.

https://youtu.be/toF4HduXBww (14 Minutes)

5.3. Some starting practices for the everyday. An awareness of where your mind and body are.

An important first step is to just develop an awareness of where you are from moment to moment – non where you have come from or an anticipation of where you are going. This is the first step in holistic practice.

1. Mind awareness - where your mind right now?

So, where is your mind right now?

i). Sensation awareness. *What sensations am I aware of, internal from my body or external from my environment?*

ii). Thought awareness. *Where are my thoughts - past present or future?*

Are you aware of any self-defeating thoughts such as "I'm not good enough" or "I'm bound to fail". Our brain is naturally inclined to focus on negative bias, a trait that probably evolved as a survival mechanism.

Instead of fighting negative thoughts, observe them without judgement and acknowledge them. See them as merely words or images. Perhaps just be a little kind to yourself and say to yourself, ”OK - this is just a thought.”

iii). Emotional awareness. *What emotions am I witnessing? Strong/weak*.

Name them but perhaps you can let go of the label you attach to them that they are good or bad.

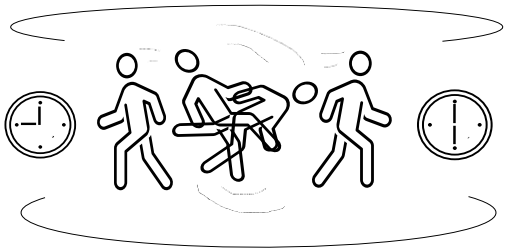


Figure 5.5. Where is your mind in time right now?

2. Body Awareness – where is your body right now?

i). Body muscle awareness.

Which muscles are active? Where is the tension feeling in my body for example neck, jaw, throat, hands, arms.

ii). Breathing awareness.

What is the rhythm of my breathing? The breath is the main body function over which we have direct control, and it is richly connected to other parts of the nervous system. When the breathing is calm, the mind becomes more settled.

Focus on your breathing. The breath is a central focus and anchor for holistic practice. What is your breathing doing? Slow, rapid, irregular rhythm? Is there a gap between inhale and exhale?

iii). Posture awareness. Where is your posture right now? As we have discussed in section 4, it is helpful to reduce excess sympathetic drive (“fight and flight” mode) which is such a feature of modern life, and move towards a state of balance with our parasympathetic system.

Posture is a good place to start. The relationship works in both ways – the state of our autonomic nervous system influences our posture, and our posture can influence our autonomic state. When you are in sympathetic mode, muscles are tense particularly in the neck shoulders and back. You adopt a closed, protective posture reflecting the fact that you are in fight and flight mode. Posture can have an important impact on migraine. This is for two reasons:

i). The nerves of the neck and shoulders terminate in the same part of the brain as the “migraine generator.” Slumping may exacerbate activity of this migraine centre.

ii). Trunk and head posture deviations from neutral, particularly forward flexion or forward head posture, can activate autonomic stress responses which are not helpful for migraine. These are some simple things you can do:

- We spend much of our time slumped over our computers. Ensure your screen is at eye level.
- Avoid sitting still for long periods.
- Keep your neck extended, looking straight ahead if you can.
- Look straight ahead and draw your chin straight back.
- Keep your body balanced about the mid line.

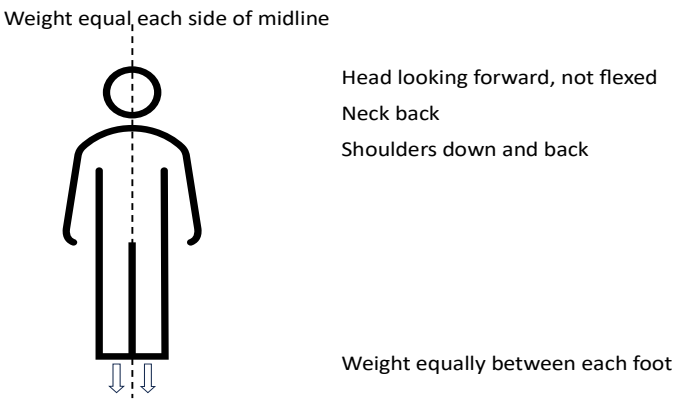


Figure 5.7. Think about your posture.

Having described some important basic starting points, we can now go on to discuss specific areas of a holistic approach.

Section 6. Medical management of migraine

Interventions are either directed at the migraine attack once it has started (relief approaches) or preventative medications that are taken on a regular basis that aim to stop the migraine attacks from occurring (prevention approaches).

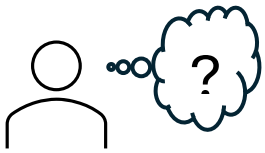
The next two sections offer a brief overview of treatment options and are not intended as a substitute for the comprehensive 'product information' leaflet found inside all boxes of medication. The 'product information' leaflet should always be read before taking medication. For prescribed drugs, your doctor will discuss the risks and benefits of the medication as it relates to you and answer any further questions you may have. If you are pregnant, planning a pregnancy or on other medication, seek further qualified advise.

6.1. Nerve stimulator devices.

These devices can all be used for the migraine attack and some can also be used on a regular basis to prevent migraine attacks. The evidence to support them is not as rigorous as drugs and they need to be purchased privately in the UK.

Device	Action	Use
Cephaly	Stimulates nerves on the forehead (the Trigeminal nerve)	Treats and prevents attack
Gammacore	Stimulates the Vagus nerve in neck	Treats attack (More effective in cluster headache).
STMSmini	Stimulates brain directly	Treats attack
Nerivio	Stimulates nerves in arm	Treats attack

Figure 6.1. Electrical devises used in migraine.



Want to know more about electrical neuromodulation devises

National Migraine Centre Heads Up Podcast. Series 2, episode 10.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

6.2. Pharmacological management of the migraine attack.

There are two treatment approaches:

- Stepped care within the attack, i.e., starting with simple pain killers (also known as analgesics). If ineffective, moving towards stronger drugs.
- Stratified care, matching the approach to the severity of the attack.

A pragmatic option is to try both and establish what is best for you.

Simple pain killers/anti-inflammatory/anti sickness medication

A useful first step is paracetamol 1500mg, ibuprofen 400–600mg (or aspirin 900mg). Higher doses help quick action but don't take more than the daily recommendation of tablets. Soluble preparations work better and can be absorbed quicker with a fizzy drink. (Many people find Coca-Cola useful). This can be a useful option prior to taking a Triptan if you are unsure how a migraine will develop.

Nausea will hold up drugs in the stomach and prevent absorption. Aways use an anti-sickness medication if nausea is present. Metoclopramide 10 mg or Prochlorperazine 5mg are the main prescribable drugs used. However, Prochlorperazine is available as a 3mg formulation that dissolves in the mouth – "Buccastem".

Triptans

Triptans have revolutionised the management of the migraine attack. People will vary in their response and tolerability to Triptans. Available triptans in the UK are: Sumatriptan, Rizatriptan, Zolmitriptan, Eletriptan, Almotriptan. Naratriptan and Frovatriptan may not be so effective but last longer and may have fewer side effects. Triptans can be:

- Can be taken with pain killers/anti-inflammatory/anti-sickness drugs.
- Should be taken at the onset of pain. They may not work so effectively if taken during the aura phase.
- Failure to respond or side effects to one Triptan do not indicate others will be the same – try another. If you fail to respond, there is a >70% chance that an alternative triptan will be successful.
- Maximum 2 doses in 24h.
- Unlicensed for >65 years. Triptans can constrict arteries. There is the concern of an increased possibility of underlying vascular disease in this age group. However, in some cases the benefits may outweigh the potential risks if there are no risk factors other than age.
- Not to be used in heart disease or previous, uncontrolled or severe hypertension, cerebrovascular disease (stroke), peripheral vascular disease
- Triptans are available in the UK. in injectable, nasal or oral formulations

See Table 6.1.

Sumatriptan 50 mg can be bought direct from the pharmacist

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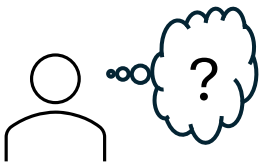
Preparation	Drug	Useful when
Injectable	Sumatriptan 3mg or 6mg SC	Severe vomiting, rapidly developing symptoms

Nasal	Sumatriptan 10mg and 20mg nasal spray, zolmitriptan nasal spray 5mg	Useful where vomiting or severe nausea is a problem. Approximately 20% gets absorbed through the nose
Oral	All triptans. Orally dissolvable formulations are for convenience only and do not get absorbed through the mouth lining.	

Table 6.1. Triptan delivery modes



Want to know more about Triptans?

National Migraine Centre Heads Up Podcast. Series 1, episode 5.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

Gepants

A recently developed group of drugs used for both the attack and prevention block the action of a nerve transmission molecule that is important in migraine. (CGRP.) We will meet these drugs again in the next section.

- Rimegepant 75mg licensed in the UK as of March 2024 and available on NHS prescription if two Triptans have failed.
- Better tolerated than Triptans with fewer side effects and relatively safe in vascular disease as they do not cause constriction of arteries.
- Similar effectiveness to Triptans.
- Evidence suggests they are not associated with medication overuse.

6.3. Prevention of the migraine attack.

Preventive medications are taken regularly and can reduce the frequency, duration or severity of migraine attacks. There are no rules as to when they should be started, but relevant factors are:

- Impact upon disability and headache-related quality of life.
- Overuse of relief medication, particularly where there is potential for medication overuse headache.
- Attitude towards taking medication on a regular basis.

i). Natural preventative therapies.

They are not available on prescription and need to be bought privately. Most recognised health shops would sell them. The evidence to support them is variable and not as strong as drugs and they can be expensive. Magnesium, Co enzyme Q10 and vitamin B2 have some evidence of support. They may work by facilitating energy production in cells.

Magnesium

Magnesium is needed as part of a healthy diet. It comes in cereal, nuts, spices, coffee, tea and vegetables.

There is evidence that some people with migraine have low levels of magnesium; this may be the case especially with menstrual migraine.

The suggested dose is 600mg daily. (Make sure any tablets contain 600mg of “elemental magnesium). Side effects are uncommon, but diarrhoea can occur. Magnesium citrate may be less likely to cause problems.

Co-enzyme Q10

Co-enzyme Q10 is a compound linked to the production of energy in cells. It is also an antioxidant, clearing up “waste products” from cells.

It is found in oily fish (e.g. salmon, tuna), offal such as liver, and whole grains. Some minor side effects have been reported including a burning feeling in the mouth, nausea and diarrhoea. The suggested dose is 100mg three times a day.

Riboflavin or Vit B2

Riboflavin or vitamin B2 has a similar role to Co-enzyme Q10 and is found in meat, eggs, green vegetables, cereals and dairy products.

The dose is 400mg a day and there are few side effects apart from a slight yellow discoloration of the urine, passing urine more frequently and diarrhoea.

Butterbur

There are different types of Butterbur, a fleshy creeping plant of the Asteraceae family. The medicinal one is Butterbur Petasin. In its natural form it is toxic and can only be used when purified.

The suggested dose is 50 to 75 mg twice a day (with at least 7.5mg Petasin and Isopetasin).

Do not use butterbur products unless they are certified and labelled as free of pyrrolizidine alkaloids which can cause serious side effects.

Feverfew

Feverfew is a herb traditionally used for headache, pain and fever. Doses are not clear – some studies have looked at chewing leaves, others 6.25mg of a prepared product.

Side effects include mild stomach upset, increased heart rate and mouth ulcers if chewing leaves. There have been some concerns about the effect on the liver and is not recommended to take in diabetes, liver conditions, alcohol dependence or with anticoagulant drugs.

Vitamin D

Involved in several pathways of neurotransmission. Low levels have been detected in people with migraine. Benefit has been claimed from high daily doses 100mcg (4000IU) of Vit D. (Current recommended dietary daily dose is 15mcg or 600IU.) There is potential for harm at prolonged high doses, including high calcium levels.

ii). Pharmaceutical drugs for prevention These drugs are available on prescription only and the product information leaflet in the package should always be read. Except for CGRP pathway blockers, preventive drugs have been discovered when people have taken them for other reasons and found that their migraine has improved. They are:

Beta-Blockers. E.g. Propranolol. Useful if there is co-existing anxiety. Not for use if you have asthma.

Amitriptyline. Originally introduced as an antidepressant, it has a direct effect on migraine and is not used for its antidepressant effects. However, it can be useful if there is co-existent anxiety, poor sleep or depression. Nortriptyline can be used if side effects are problematic.

Pizotifen. Limited effectiveness and troublesome weight gain. Useful in children.

Anticonvulsants. Topiramate has most evidence of benefit but avoid if you are a woman of childbearing age. Side effects can be problematic.

Angiotensin II receptor antagonists. E.g. Candesartan. Used in the treatment of blood pressure but blood pressure drop as a side effect less likely to be a problem if your pressure is normal.

Botox. Licensed for chronic migraine only where three standard preventers have failed or not been tolerated. Given 3 monthly. Relatively few side effects.

Flunarizine. Doesn't have a UK license but is in widespread use in Europe and used by headache specialists. Useful in hemiplegic migraine.

Calcium gene-related peptide (CGRP) blockers

This group of drugs are the first specifically designed for migraine prevention. Two groups of drugs have been developed:

i). CGRP monoclonal antibodies

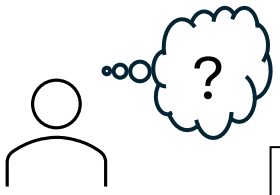
- Currently available in the NHS when three previous preventive medications have failed.
- Prescribed in specialist care only.
- When there are four or more migraine days a month.
- Low side effect profile includes inflammation at injection site, constipation and potential increase in blood pressure.
- Cannot be taken by mouth. Injection and infusion only.

ii). Gepants.

- Taken by mouth.
- Currently available in the NHS when three previous preventive medications have failed
- GPs can prescribe in many areas of the UK but in some they remain specialist initiated. Check your local NHS formulary guidance as there is variation across the NHS.
- Available on the NHS when there are four or more migraine days a month.
- Effective for migraine attacks and for prevention
- Low side effect profile

Monoclonal antibody	Dose	Current UK license
Erenumab (Aimovig)	140 mg monthly self-injection	Episodic and chronic migraine
Fremanezumab (Ajovy)	225 mg monthly or 675 mg three-monthly self-injection	Episodic and chronic migraine
Galcanezumab (Emgality)	120-240 mg monthly self-injection	Episodic and chronic migraine
Epinezumab	Intravenous infusion	Episodic and chronic migraine
Rimegepant (Vydura)	75mg every other day by mouth	Migraine attack and episodic migraine prevention
Atogepant (Qulipta)	60 mg daily by mouth	Prevention of episodic and chronic migraine

Table 7.1. Anti CGRP drugs at December 2025.



Want to know more about anti CGRP injections

National Migraine Centre Heads Up Podcast. Series 2 , episode 8.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

When using preventers, start at a low dose and increase slowly to the maximum recommended dose or when side effects become problematic unless there is only one recommended dose. Continue for at least 8 weeks on the maximum dose that can be tolerated before judging effectiveness. Consider discontinuation at 6-12 months and reduce drug slowly if stopping.

A successful prevention may give the brain time reset and break the oversensitivity it has got stuck in. In might also allow you to address other stressors that may be making things worse.

Some drugs have the potential to cause harm to the baby in the womb. Always tell your doctor if you are planning a pregnancy.

iii). Other preventative options

Occipital nerve injection.

Local anaesthetic is infiltrated into the nerves in the back of the neck. Steroids are often added. Relief can be up to three months. Can be used in pregnancy.

Acupuncture.

There are many variables in the technique which makes evaluation difficult. Although recommended for migraine by NICE, it is unlikely to be available on the NHS, although some centres do offer a limited course. Judge effect of benefit after 6-8 weeks.

Visual Stress and coloured lenses.

Visual stress (Irlen's syndrome) is a processing and visual perceptual disorder associated with several problems of which migraine is the most common. Symptoms of visual stress include: screwing up of eyes with visual tasks; blurred vision; print jumbling, vibrating, moving or merging; pain around the eyes; light sensitivity especially to glare, white pages or screens; problems with car headlights at night. Formal colorimetrical assessment and the prescription of appropriate tinted lenses can help some people. Only a few opticians will have the facility to perform this test.

7.5. Interventions where there is no evidence of benefit.

Homeopathy.

Homeopathy is a therapeutic method using preparations of substances whose effects when administered to healthy people correspond to the manifestations of the disorder. Remedies are made from preparations of the starting substance which are very dilute.

Hole in the heart or (PFO) closure

There is a strong relationship between migraine with aura and the size of a hole in the heart, a remnant of embryonic development. This is important in foetal circulation but usually closes at birth. Studies have shown potential for harm and no benefit from closure, which is not recommended.

Section 7. Psychological approaches for dealing with unhelpful thoughts and emotions.

Psychology is the study of how our mind works and it effect on how we interact with others and the world. Inevitably there is overlap between psychological and holistic practices. Indeed, many psychological practices have been borrowed from holistic practices.

Often migraine can be made worse by unhelpful patterns of thoughts, emotions and consequent behaviours and here we explore some suggestions of how we can manage these.

Thoughts are the internal conversations we have with ourselves. Emotions are patterns of behaviour and internal body responses that have evolved to protect us and promote social behaviour. All emotions are helpful but they are designed to be transient – do their job and then return to normal.

Thoughts, emotions, memories often get tangled in a repetitive loop and can interact in ways that are not helpful. See figure 1.18. For example, our thoughts can draw upon previous unhelpful memories. Thoughts can trigger emotions which feedback to the thoughts you continue to have. (Negative emotions are stronger than positive ones as they have evolved to protect us.) Body functions such as heart rate and breathing rate can be affected which in turn feedback to how we think and feel. So, the treadmill continues.

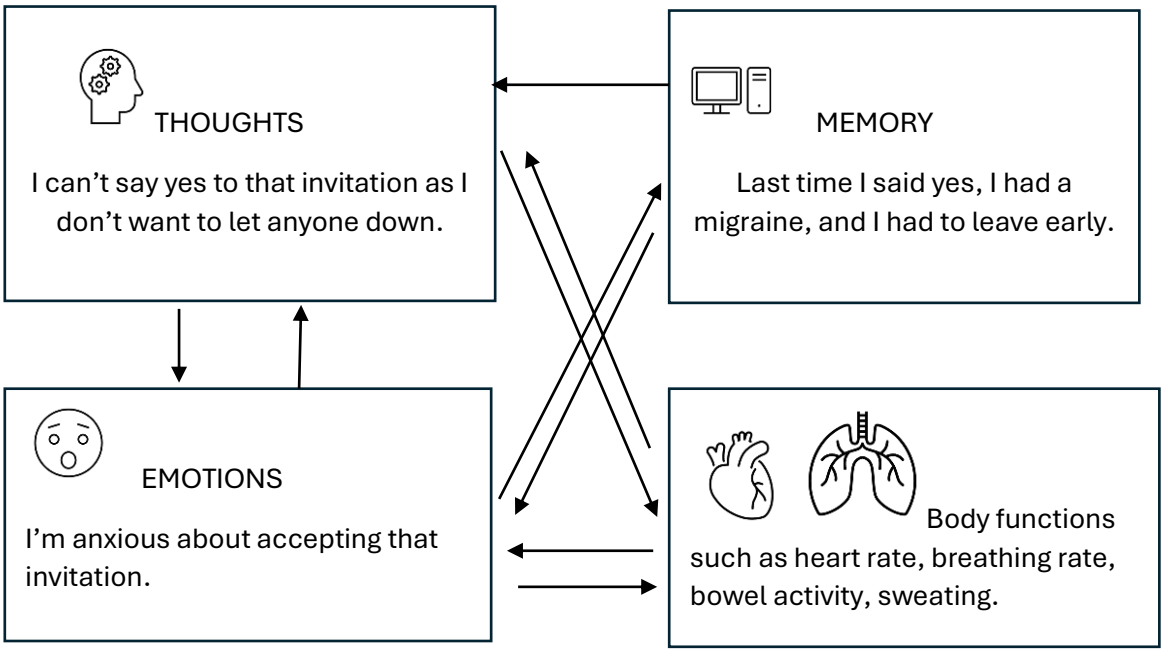
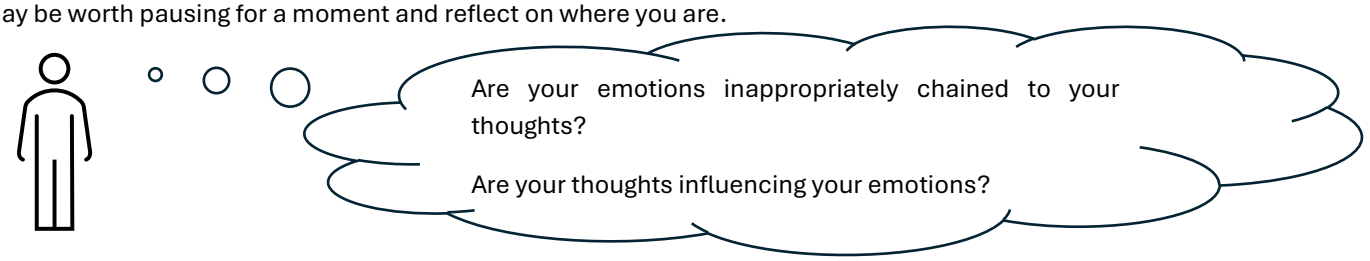


Figure 7.1. The complex interactions between thoughts, memory, moods, emotions. Body functions are controlled by the part of the nervous system known as the autonomic nervous system.

It may be worth pausing for a moment and reflect on where you are.



Some useful approaches to untaggling these interactions are:

7.1). Breaking the chain of unhelpful emotional patterns.

Unfortunately, emotions can get attached to our thoughts like a dog with a bone perpetuating an unhelpful vicious cycle that it can be hard to break. Do you recognise it? Two ways to address this are:

i). Cognitive Behavioural Therapy (CBT)

CBT looks at four parts that constantly influence each other:

- Thoughts – your inner conversations.
- Emotions - E.g. fear, frustration, or anxiety.
- Body reactions – muscle tension, heart rate, nausea, fatigue, pain.
- Behaviours – what you do to avoid anticipated negative consequences.

All these parts are interacting, and CBT encourages us to understand how our thoughts, emotions, body responses, and behaviours affect each other. For example, what we think about a situation can change how our body reacts and what we do next. CBT helps us to notice unhelpful thought patterns and habits that can make migraine worse or harder to cope with and replace them with more helpful ones.

For example, you wake up with a mild headache.

Thought - "This is definitely going to turn into a terrible migraine."

Emotion – Anxiety.

Body reaction - Muscle tension, increased sensitivity to light and sound.

Behaviour - You cancel plans, lie very still, monitor every sensation. As a result, the nervous system stays on high alert, and the migraine may become more severe.

CBT helps you notice this chain and interrupt it. You might think instead – "My mild headache doesn't always turn into a migraine. If it does, I have got some effective tablets which will allow me to function.

For example, you have a migraine attack.

Thought - "This pain is unbearable. I won't cope."

Emotion - Panic

Body reaction - increases pain sensitivity and muscle tension.

You might think instead - "This pain is very uncomfortable, but I have managed attacks before. Slower breathing, using coping strategies instead of panicking has helped before."

Two examples of a CBT approach

ii). Mindfulness approaches.

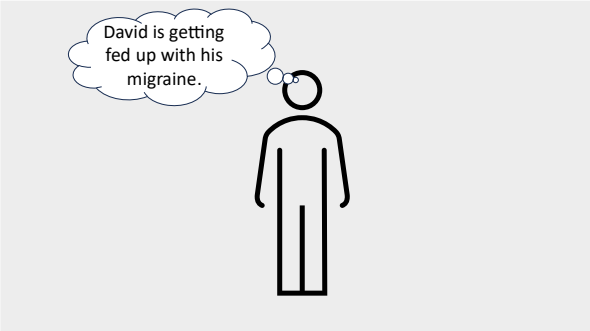
Derived from eastern meditative practises, mindfulness takes a very different approach. It encourages us to be the neutral observers of our thoughts and emotions without judging them and without allowing ourselves to get caught up in the chains. This approach is has become widespread in many areas of medical practise and is covered in Section 9.

7.2). Self talk and psychological distancing

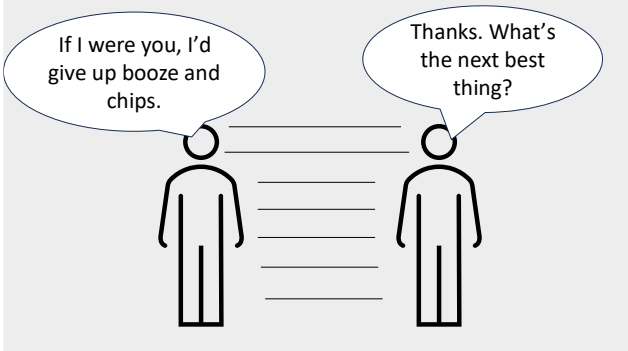
Self-talk is the out aloud or internal spoken dialogue we have with ourselves. It isn't a sign of eccentricity or cognitive decline, as some might think. It's a powerful tool for thinking clearly, managing emotions, motivating ourselves, and working through challenges. It engages the same mental machinery we use when thinking and communicating with others — selecting the right words, structuring ideas and meaning enhancing clarity of thought and intention.

Closely aligned with self-talk is psychological distancing, an approach that seeks to create space between yourself and your thoughts and emotions. It aims to give you a more balanced perspective, regulate your emotions and make more rational decisions. There are a number of approaches in these two areas you might like to think about:

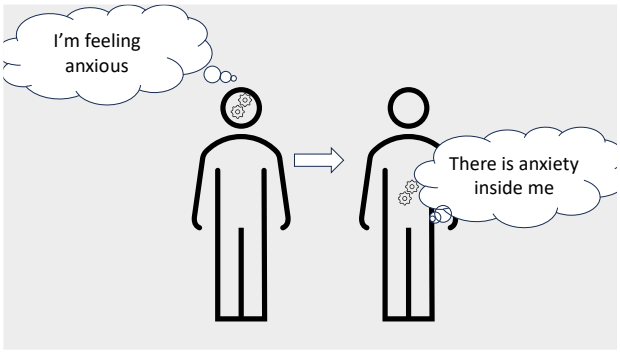
- **Third person distancing**. Talk to yourself in terms of an outside observer using the third person. For example, instead of saying "my migraine makes me feel so distressed" say "David's migraine Is making him feel distressed but he is taking steps to address it." You could also think of journaling in this way.



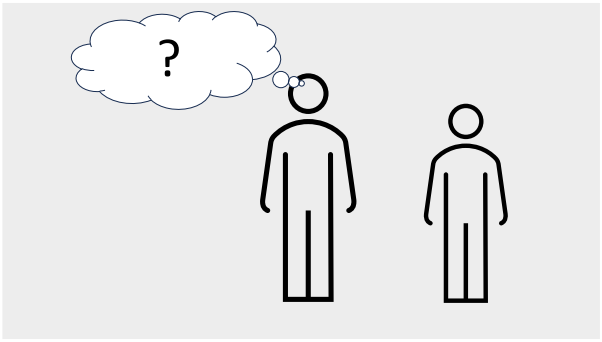
- **Advice to another**. Think what advice you would give to a friend facing the same problem.



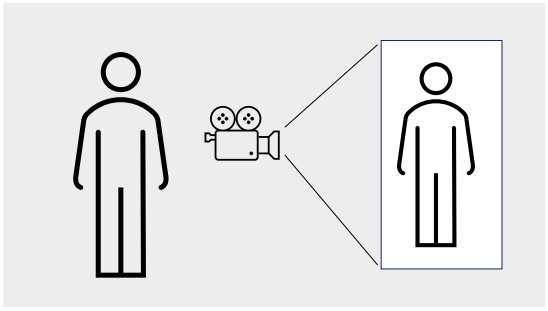
- **Language distancing**. Instead of saying "I am anxious" say "I am experiencing anxiety" or "there is anxiety in me." Label your thoughts and emotions but don't engage or associate with them.



- **Hypothetical distancing.** Consider your situation as hypothetical. For example if someone else was in this position they would.....



- **Spatial distancing**, imagines viewing a problem as if looking down from above. Alternatively, imagine yourself in the audience of a cinema watching your story unfold on a movie screen.



David has migraine which is a condition of the nervous system rather than David's identity. It can cause anxiety and frustration in David. It does not affect David's values or self worth and it is not a personal failure of David. David still remains a whole person even on difficult days. If a friend was in this position I would recommend that they seek an understanding of what is going on and explore a range of solutions that feel right for them.

An example of self-talk with psychological distancing.

3). The impact of suppressed emotional trauma

Many of us will experience traumatic experiences in our lifetime and these and the emotions attached to them can lay suppressed beneath the level of our consciousness. What remains in the dark will invariably shape your life and your sense of self as it expresses itself in other areas.

This unprocessed activity also consumes energy and induces chronic inflammation, both of which will exacerbate migraine. Childhood traumatic events are particularly problematic as the brain is in a vulnerable state during this phase of rapid development.

You are certainly not alone if you have experienced a traumatic event. Almost 50% of the population have experienced a significant childhood adverse event and most of us will be holding some trauma.

There is general agreement that it is better for important unconscious material to be brought to the surface but only gradually and safely to allow it to be integrated and resolved. Traumas often contain emotionally overwhelming material and are part of patterns that continue to serve as historic protection so the area should be managed with care.

You may not be ready yet to attend to unconscious traumas, some people feel more comfortable not addressing any previous experiences. Some questions you might like to ask yourself to help decide if you need to move forward in this area are:

- Are any previous traumatic events harming me by manifesting in other areas. For example, drugs, alcohol, self-abuse?
- Are any previous traumatic events impacting upon others around me? For example, relationship problems.
- Is my migraine trying to tell me something?
- Do I feel at peace with myself?

Unconscious traumas and the emotions associated with them are best explored with a qualified therapist at a pace that feels right for you. Holistic trauma therapists offer a wide range of holistic practises to this end in addition to psychologists and psychoanalysts. It is important to see either someone who is recommended to you or has the appropriate qualifications.

If you want to move things forward, then perhaps guidance from your General Practitioner would be an appropriate first step.

7.4. How can we reduce the impact of unhelpful stressors? The concept of Resilience.

Practical approaches to addressing the inflammatory load we carry and reducing the impact of ongoing or future stressors that include lifestyle and holistic practices are covered in Section 9 of the handbook.

Here we explore the concept of resilience - the ability to cope with stressors in such a way that minimises their negative consequences and reduces inappropriate inflammation. We have met some of them before and others will be found in future sections.

An individual's resilience is in part determined by genetic factors and our upbringing which patterns how we respond when challenged. Resilient people are not free from emotions but are able to have more control of their negative emotions and thoughts.

Some things that have been shown to be useful for developing resilience are:

- **Disruption of negative thought patterns.** It can be useful to break down our internal patterns of thoughts and emotions and examine them individually. Do they make sense? Can we develop strategies for when they occur.
  This is the basis of cognitive behavioral therapy (CBT) that we have previously met. The aim is to challenge the patterns of entrained negative thinking through self-awareness and replacing them with positive thoughts. For example, replacing "I

am unworthy" with "I am good enough" and thinking of reasons why this should be.

- **Name your emotions and bring them to light.** Not "I am anxious" but "I have anxiety in me." You are not defined by your anxiety. You are not anxiety. Challenge the emotions that are attached to your thoughts. Are they realistic or of an appropriate magnitude? Are they helping you?

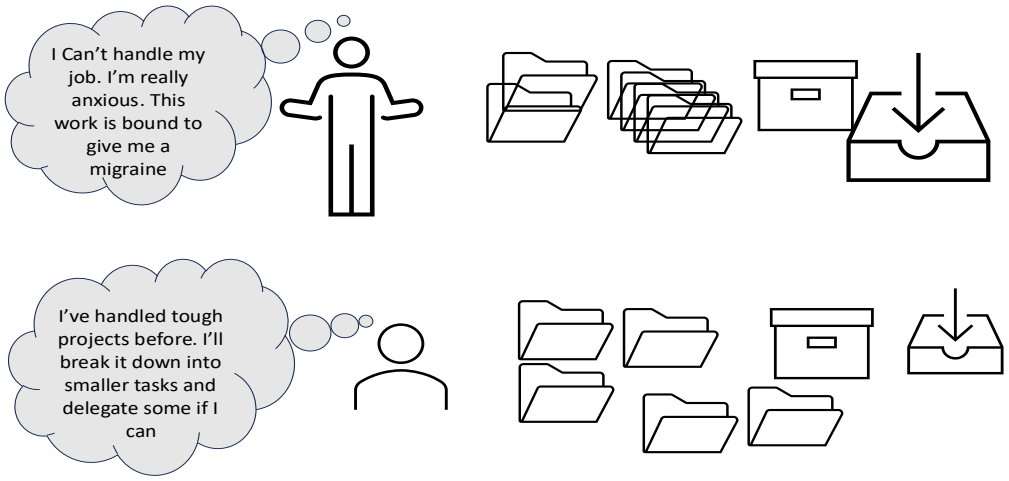


Figure 7.2. Identifying unproductive thought patterns and reframing them.

- **Respond not react.** When we are challenged, the temptation is to react or RE - ACT. i.e replay the same defensive patterns as we have always done. Try responding instead – take a breath and a few seconds to respond, mindful of what is influencing the way you are replying. It may be based on stressors that you have experienced in the past. Perhaps you could go with the flow? Let any challenge flow around you like water around a stone in a river.
- **Accept that change is a part of living.** Certain goals may no longer be attainable. Accepting circumstances that cannot be changed can help you focus on circumstances that you can alter.
- **Set some manageable goals.** But be realistic about what you can do. Do something regularly that enables you to move forward, even if it's a small thing. "What's one thing I know I can accomplish today that helps me move in the direction I want to go?"
- **Learn from your experience**. Ask yourself – "what is this teaching me, how can I grow from this?
- **Make connections.** Good relationships with other people are important. Some people find that being active in civic groups, faith-based organizations, or other local groups provides social support. Reciprocating with others in their time of need can be beneficial.
- **Take care of yourself.** Pay attention to your own needs and feelings and ensure your work life balance is appropriate. Engage in activities that you enjoy and find relaxing. Give yourself "Me time." Learn to say no.
- **Keep a sense of humour.** Laughter and humour have been shown to promote resilience.

The opposite to resilience is learned helplessness. This can occur when there are challenges it is difficult or not possible to avoid. It can be easy to slip into the trap of victimhood. Accepting that there is no hope, it is not worth trying and it's up to others to sort things out. But we always do have a choice, not necessarily on how our circumstances are, but how we respond to them.

Section 8. Managing a favourable external environment.

In this section we explore the wide range of environmental factors that impact upon migraine. These factors interact in a complex manner so it can be difficult to unpack what is relevant.

An important starting point is that people with migraine do not respond well to changes in their environment, either internal or external. Some of these factors can be addressed, others may be outside your control. Common factors are hormonal change in females, changes in the weather, irregular eating or drinking patterns and particularly skipping a meal, irregular sleep patterns or poor sleep, erratic stress levels, (weekend and holiday headache when stress levels are suddenly reduced). It is important to keep things as constant as you can.

We have seen in section 4 that a chronic inflammatory load can be unhelpful. A healthy diet, regular physical exercise and a healthy gut biome will help to address this.

8.1. Migraine triggers

How triggers work is poorly understood but they are thought to act directly on the migraine pathway in the brain. Many people spend a lifetime in the search for an elusive trigger. As triggers interact with each other, environmental factors and our current body state, their action is usually inconsistent. ***If a trigger is not obvious it is not worth consuming time identifying one.***

Often, a premonitory or warning symptoms of migraine such as craving for a specific food, may be mistaken for a trigger.

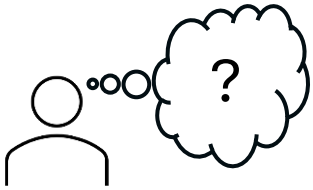
Food might be considered a trigger if headache occurred in ≥50% of instances within one day of exposure. A dietary diary can be useful. The most common triggers are chocolate, citrus fruits, nuts, ice cream, tomatoes, onions, dairy products, alcoholic beverages, coffee, caffeine, monosodium glutamate (MSG), histamine, tyramine, phenylethylamine, nitrites, aspartame, sucralose, and gluten.

Caffeine is often implicated not just as a trigger but as a general brain stimulant. Caffeine in the context of medication overuse headache can also be a problem as it is a component of pain killers. Dietary intake can also contribute to a caffeine load which should be kept to a minimum. (see figure 8.1).

Item	Item size	Caffeine content
Coffee	150ml (5oz)	60–150mg
Coffee, decaffeinated	150ml (5oz)	2–5mg
Tea	150ml (5oz)	40–80mg
Cocoa	150ml (5oz)	1–8mg
Coca Cola®	12oz	64mg
Diet Coca Cola®	12oz	45mg
Dr Pepper®	12oz	61mg
Pepsi Cola®	12oz	43mg
Kit-Kat® bar	1 bar, 47g	5mg
Chocolate brownie	1.25oz	8mg
Chocolate ice cream	50g	2–5mg
Milk chocolate	1oz	1.15mg
Special dark chocolate bar	1 bar, 41g	31mg
After Eight® mint	2 pieces, 8g	1.6mg

Figure 8.1. Caffeine content of some common drinks and chocolate.

Food allergies act via a different mechanism. An allergic reaction is a consistent occurrence and mediated by specific allergic pathways. The role of allergy in migraine is not supported by evidence and allergy testing is not recommended.



Want to know more about triggers?

National Migraine Centre Heads Up Podcast. Series 1, episode 2.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

Martinelli D. Triggers of migraine: where do we stand? Curr Opin Neurol. 2022 Jun 1;35(3):360-366. doi: 10.1097/WCO.0000000000001065. PMID: 35674080.

8.2. Diet and Migraine

There are three areas to be considered. Firstly, diets that are beneficial for overall health either directly or on their effect on chronic inflammation. Secondly, diets that are claimed to reduce migraine attacks. Thirdly, diets that improve the bacteria that live in our gut. The gut biome is considered in section 8.3.

It is also important not to skip meals and aim to eat regularly to keep blood levels as constant as we can.

Eating a healthy diet.

A healthy diet is important for our general wellbeing. It reduces the chances of many diseases and in particular cardiovascular disease and diabetes. More specifically, we have seen the importance of inflammation in migraine in Section 4 and diet and weight have an important role to play here, mediating inflammatory load.

For a balanced diet we should:

- Eat at least 5 portions of a variety of fruit and vegetables every day.
- Base meals on higher fibre starchy foods like potatoes, bread, rice or pasta.
- Have some dairy or dairy alternatives (such as soya drinks).
- Eat some beans, pulses, fish, eggs, meat and other protein.
- Choose unsaturated oils and spreads and eat them in small amounts.
- Drink plenty of fluids (at least 6 to 8 glasses a day).
- Avoid ultra processed foods.

For more information on fruit and vegetable portions see:

5 A Day: what counts? - NHS (www.nhs.uk)

For more comprehensive information on eating well see:

The Eatwell Guide - NHS (www.nhs.uk)

Ultra processed food

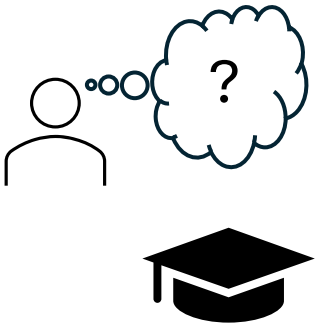
Humans have been processing food for millennia – salting, pickling, making cheeses, butter. But *ultra* processed foods are manufactured by reducing food into its component parts and re constituting them, invariably by chemical modification and the addition of other components of which sugar and fats are most common. E.g. packaged cereals, ready-made pizza, reconstituted meat products, cakes, biscuits and snacks. They are powerful stimulants of inflammation.

Ultra processes foods account for approximately half of the UKs calorific intake, are affordable, convenient, and aggressively marketed. The presence of fat and sugar

stimulates consumption, bigger meals, weight gain and further inflammatory load.

A study found that when given an ultra-processed diet, volunteers gained 0.9 Kg in two weeks compared with a similar loss on an unprocessed diet. They also have a detrimental effect on the gut biome.

The message is clear – resist the temptation and avoid them if you can.



Want to know more about diet?

National Migraine Centre Heads Up Podcast. Series 6, episode 1.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

Tu YH, et al. Dietary Patterns and Migraine: Insights and Impact. Nutrients. 2025 Feb 13;17(4):669. doi: 10.3390/nu17040669. PMID: 40004997; PMCID: PMC11858445.

Maintaining a satisfactory weight

Carrying too much weight stimulates chronic inflammation. You can get an idea if you are overweight on the NHS calculator.

Calculate your body mass index (BMI) for adults - NHS (www.nhs.uk)

To lose weight a general guide is to aim for weight loss of 0.5 to 1 kg a week. For most men this means 1900 calories a day and for women, 1400 calories a day. The NHS website offers useful information.

Lose weight - Better Health - NHS (www.nhs.uk).

Check with your surgery if there are local weight loss clinics or whether you can be referred to a prescribed exercise scheme which will help. Drugs to help weight loss are becoming more available.

8.3. Migraine diets

Several migraine diets have been suggested but the evidence for benefit is poor.

High omega-3/low omega-6 diets

This is the most promising approach. Omega 6 (O6) and omega 3 (O3) are fatty acids, both essential for our metabolism. Omega 6 is inflammatory and omega 3 anti-inflammatory. Consumption patterns are shifting rapidly with

available.

Ketogenic diets.

This is a high fat, adequate protein, low carbohydrate diet that forces the body to burn fat for energy and not carbohydrates, leading to the formation of ketones. It shares many similarities with the Atkin's diet typically containing 70% fat, 20% protein and 10% carbohydrate.

There are several speculative mechanisms including lowering chronic inflammatory load. An interesting suggestion is that manipulation of genetic expression may occur in ketogenic diets.

High salt diet.

People who have a high salt diet have noted a reduction in their migraine and a high salt diet has helped some people. However, there is no rigorous evidence to support this and there is a concern that increased salt may have an unfavourable impact upon blood pressure.

8.4. Staying hydrated

The last decade has been characterised by an obsession with hydration - the ubiquitous water bottle and smart watches that now purport to tell us if we are sufficiently hydrated. The fact that the bottled water industry is estimated to be worth $240 billion a year may be a relevant factor.

Our bodies can closely regulate our requirements by a combination of thirst regulation and kidney control and dehydration will be unlikely. (Old people are more vulnerable to dehydration as the thirst reflex can diminish with age and urine is concentrated less well.)

The key points are:

- A sensible intake is at least 6-8 glasses a day. The average male will require 1.5-1.8 litres a day and the average female1.3-1.4 litres.
- For migraineurs, the important thing is to drink regularly throughout the day to avoid fluctuations in hydration.
- Sports drinks are only of benefit to high performance situations.
- Avoid energy drinks – they contain stimulants.
- Avoid excess caffeine and drinks containing artificial colouring.
- There is nothing wrong with tap water!

8.5. The Gut microbiome and migraine

We are not alone. We co-habit with trillions of microbes and the ones that have gained increasing attention over the past few years are the residents of our gut – the gut microbiome. Rather than being passive recipients of our hospitality, they form an important part of our immune system and produce compounds that influence how the brain works.

Considerable evidence is emerging that a healthy microbiome is a marker of a healthy body. An important action is the contribution to the control of our old friend chronic inflammation.

Things we can do to promote a healthy biome and facilitate its control of chronic inflammation:

- Probiotics. These are microbes that can help to improve the biome and are marketed under several guises. It is claimed that they can help boost resilience to stress, improve mental health and cognitive decline. They remain unregulated and rigorous evidence is awaited. The European Food Safety Authority has yet to approve any health claims (2023).
- Prebiotics. This is food that is beneficial for bacterial growth. They include complex sugars that are contained in dietary fibre and polyphenols, natural chemicals that occur in a wide range of foods. Yoghurts, kefir, kombucha, kimchi, vegetables, nuts, berries, omega 3 fats from oily fish and particularly coloured fruit and vegetables are important sources.
- Get a dog. Ons study found that dog owners had their microbiome boosted and other pets may have similar impact.
- Faecal transplants. Transplanting healthy gut biomes is an interesting possibility but clear evidence of benefit is awaited.

In summary, this is an important and rapidly developing field. At this time, a sensible modification of diet as outlined above (Prebiotics) is a first step. But as in all areas where there are commercial opportunities, it is wise to proceed with caution.

8.6. Exercise and migraine

There is now a substantial body of evidence that exercise benefits migraine. It has a powerful effect on inflammatory pathways, improves cardiovascular health and has been shown to improve mental health. During an attack, exercise will make things worse and should be avoided. Rarely, exercise can trigger an attack, and this situation may need further investigation although it is unusual to find any serious problem.

There are evidence-based recommendations for exercise but as a rule of thumb any exercise is beneficial, and more exercise gives more benefit. The bottom line is, just get more active. Your GP may be able to direct you to an exercise prescription scheme in your area.

The NHS recommends, depending on your starting fitness: Do at least 150 minutes of moderate intensity activity a week or 75 minutes of vigorous intensity activity a week; spread exercise evenly over 4 to 5 days a week, or every day; reduce time spent sitting or lying down and break up long periods of not moving with some activity.

See Physical activity guidelines for adults aged 19 to 64 - NHS (www.nhs.uk)

However, exercise may not be possible in many people with migraine, particularly when it is chronic. You need to take a sensible approach and decide what is right for you.

8.8. Sleep and migraine

I have put sleep in this section as it removes us from our external environment. We don't know why we sleep. It has been suggested that it allows our body to refresh its energy stores, consolidate memories and organise brain pathways.

There are two drivers for sleep. Firstly, the clues we get from the day-night cycle This is known as our circadian rhythm. Secondly, a build-up of specific chemicals in the brain during the day which causes a "sleep pressure."

Sleep problems are very common in people with migraine and are important to address. Poor sleep causes migraine, which in turn causes poor sleep. Invariably anxiety comes into the mix. Adults need between 7 to 9 hours sleep a night, but there is a very wide normal range of between 4 and 12 hours. As we get older requirements are generally less.

The key criterion for sufficient sleep is the ability to function normally during the day but for the migraineur sleep has many other implications:

- Sleep can relieve a migraine attack.
- Disturbed sleep can cause migraine.
- Irregular sleep patterns make migraine more likely. It is important to keep sleep patterns constant.
- Migraine can awake from sleep. There is an important treatment indication here. The migraine process will have developed momentum before awakening and be more treatment resistant. Non-oral treatment formulations are often indicated which act quicker and help to avoid the problem of poor absorption.
- Physical problems which can affect sleep are more common in migraine. For example, restless leg syndrome, sleep apnoea.

There are a wide range of sleep problems as shown in figure 8.2. The focus of our attention is insomnia which is by far the most common problem. This is experienced by 10% of the population, over 25% of people with migraine and two thirds of people with chronic migraine.

- Hypersomnia - excessive sleep.
- Narcolepsy - falling asleep at inappropriate times.
- Parasomnias - abnormalities during sleep such as sleepwalking, sleep talking, sleep paralysis, night terrors.
- Dream sleep disorders - thrashing, punching, jumping out of bed.
- Rhythm sleep disorders where the 24-hour clock is shifted. Normal variations are "night owl" or "lark."
- Sleep deprivation - lack of sleep that is imposed by some external factor that restricts the opportunity to sleep.
- Insomnia. This is by far the most common affecting 10% of all adults - a sense of inadequate quantity or quality of sleep which impacts upon daytime functioning.

Figure 8.2. Types of sleep problem.

Insomnia

Insomnia is defined as a sense of inadequate quantity or quality of sleep which impacts upon daytime functioning.

The most common problem is difficulty in maintaining sleep, but other issues are difficulties in falling asleep and early-morning awakening. This results in reduced attention, sleepiness, fatigue and mood change during the day, all of which can lead to significant impact on quality-of-life and impact upon migraine frequency.

Insomnia can be transient lasting less than two weeks or chronic/prolonged (lasting three nights a week over at least three months.) Insomnia is divided into two types depending on the underlying problem.

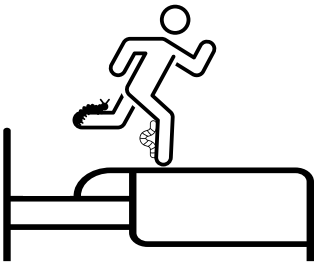
Primary insomnia.

This is the most common form. There is usually a trigger or precipitant such as a stressful event that causes arousal patterns of the nervous system. Normally a transient insomnia occurs lasting approximately 2 weeks before sleep patterns returned to normal. However, in some cases this initial response can trigger physiological and psychological mechanisms that become perpetuated within a complex cycle of rumination, anxiety, depression, body dysfunction such as muscle tension and sleep problems.

Secondary insomnia.

This occurs when there is an ongoing identifiable underlying physical or mental cause:

- Drugs. For example, thyroid hormones, corticosteroids, decongestants.
- Mental health issues. Anxiety can cause difficulty getting to sleep and depression is characterised by early-morning waking.
- Medical disorders. A wide range of medical disorders are associated with insomnia. From the perspective of the migraineur, important ones are:
  i). Pain. Any painful condition can be more problematic at night when there are fewer surrounding distractions. Migraine and associated conditions such as fibromyalgia, irritable bowel syndrome, tension headache can be problematic at night.
  ii). Restless leg syndrome. More common in migraine. Typical features are an urge to move or spontaneous movement (usually the legs), abnormal sensation such as burning, tingling or "insects crawling under the skin."



The cause is not known, but low iron can be implicated, and certain drugs can exacerbate the problem. Specific drug treatment is available so see your GP if this is a problem.

iii). Obstructive sleep apnoea. This is the cessation of breathing due to obstruction of the upper airway. It is more common with migraine resulting in poor quality sleep.

It occurs mainly in those who are overweight and is characterised by snoring, nocturnal choking, daytime sleepiness, waking unrefreshed and morning headache. Weight loss and continuous positive airway pressure as the mainstay of treatment. Surgery and devices to maintain the airway are other options but the evidence for them is poor. For further information see:

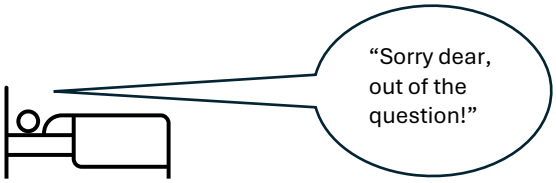
(http://www.stopbang.ca/osa/screening.php

Practical approaches to the treatment of insomnia.

i). Sleep hygiene. These are practical measures to control the environment and behaviours that are associated with sleep:

- Avoid alerting substances such as caffeine, nicotine and alcohol three hours before bedtime. (Although alcohol may be initially sedating it causes poor quality sleep and early-morning waking.)
- Engage in relaxing activities prior to going to bed, such as reading, listening to music, or taking a bath.
- Electronic devices, including TV are alerting. There is evidence that the light emitted from electronic screens can reduce melatonin and therefore the onset of sleep.

- Although social convention designates a sleeping partner, it may be better to sleep alone rather than have a disturbed night.
- Lying in bed when you're awake can become a habit that leads to poor sleep. If you are not asleep after 20 minutes, or if you wake during the night for more than 20 minutes, get up, go to a place outside the bedroom and undertake a quiet, enjoyable activity such as reading or listening to music.
- Only use the bedroom for sleeping - no TV, no reading, no mobile phone or devices. It is a sleep room



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- Don't nap. If an acceptable sleep pattern is established, power naps of less than 20-30 minutes before 3 pm are acceptable. Longer naps can disturb body rhythms if deep sleep occurs when other parts of your brain think you should be awake. Recovering from a migraine is different from napping.

ii). Sleep scheduling. This attempts to anchor the circadian rhythm or sleep cycle.

Keep a sleep diary to estimate how much you're sleeping and how much time you're spending in bed. Add 30 minutes to the actual amount of time you sleep, and this will now be your *time in bed*. Set a fixed waking up time and work backwards using your time in bed to set your time to go to bed. Use an alarm clock fixed your waking time. Keep to this regime, irrespective of how tired you may be with no lie ins.

This treatment reduces the time you spend in bed causing partial sleep deprivation. Avoid the temptation to go to bed before your set time, however tired you are. Once your sleep has improved, your time in bed can be gradually increased.

iii). Progressive muscular relaxation. This is based on the premise that mental calmness results from physical relaxation.

Muscles are tensed and relaxed, starting with the legs and working upwards. Tightly tense each muscle group for approximate five seconds and then relaxed for approximately 10 seconds. Exhale as you relax and focus on the difference between tension and relaxation. With practice you become more aware of your muscle groups, how they respond to stress and anxiety and how you can relax them with a beneficial effect.

iv). Thought stopping. Rumination is often a problem. Articulatory suppression uses an irrelevant speech sound repeated out loud. For example, repeating the word THE, THE, THE.....preferably with the eyes open.

v). A better way to worry. One approach is to offload as much as possible from our brains to other storage devices such as a diary or mobile phone.

This technique allocates a buffer zone, ideally an hour and a half before bedtime, during which your body and mind is moved to a relaxed state ready to sleep. This can be any relaxing activity, but a bath may be particularly helpful as temperature can have a physiological benefit. During this buffer zone, write down a list of what had gone well during the day and name any worries (negatives first). Then what went well today. Writing is important and has been shown to deactivate an important part of the brain involved in anxiety.

Then write down actions for the next day. Look at the action list in the morning and rate as: do now; do some other time; delete.

vi). Relaxing background noise. Several apps are available that play soothing music to encourage sleep. It has been suggested that noise at a frequency of around 15 Hertz can be helpful. See section 10.2.

Figure 8.3 summarises these suggestions.

Scheduling

Maintain a constant sleep wake time. (Anchor the day.) Don't deviate from it even at weekends.

Sleep Hygiene

Exercise regularly but not in evening.

No naps after 3 pm and no longer than 45 minutes.

Avoid caffeine, tobacco, alcohol in the evening.

Avoid electronic devices last thing at night.

Stimulus control

Don't use the bedroom for anything else other than sleep (and intimacy).

Get out of bed if unable to fall asleep after 15-20 minutes.

Relaxation

Offload your worries before going to bed.

Warm bath.

Progressive muscle relaxation.

Relaxing sound

Figure 8.3. Summary of some basic rules for sleep.

Medical treatment of Insomnia.

Amitriptyline is a useful first choice. Originally introduced as an antidepressant it is used widely as a migraine preventer. It can cause drowsiness at higher doses and can be useful to help sleep. Care must be taken when driving and operating machinery.

Hypnotics have been specifically developed to facilitate sleep. Benzodiazepines (for example, Temazepam) were used widely in the past. However, they interfere with deep restorative sleep and dependency can be a problem. The current generation of hypnotics (for example, Zolpidem, Zopiclone) have fewer problems but there is concern that their effects can carry over into the morning and dependency can occur. Hypnotics can be used for over short periods of time, but whether they can "break the cycle" of chronic insomnia is more controversial. A short one-week course may be worth considering. In all cases there should be an exit strategy at the onset with a slow reduction rather than an abrupt cessation for longer courses.

Daridorexant (Quviviq) is a recently introduced drug that works by blocking a specific chemical in the brain that keeps you alert (orexin). It is claimed to improve sleep quality without causing hangover the next day with no dependency problem. Availability on the NHS may vary across the UK.

Melatonin, a naturally occurring substance and important in the brain's biological clock, is less effective but very safe. Circadian 2mg is the only melatonin compound that can be prescribed within the NHS and can be used as a short-term hypnotic. Melatonin bought without a prescription is often of poor quality and may be ineffective.

Sleeping remedies bought from a pharmacist directly usually contain an antihistamine which can induce sleepiness, but they can last into the next day and tolerance can occur.

Herbal medicines are usually based on Valerian with similar problems to antihistamines.

Psychological therapy - Cognitive behavioural therapy for insomnia. (CBTI).

A range of psychological approaches, ideally delivered in a healthcare setting, have been combined under the label of CBTI and are as effective as hypnotics.

Unlike hypnotics, CBTI can be curative. The focus is on changing behavioural patterns and addressing unhelpful ways of thinking. For example, having realistic expectations about

sleep, not trying hard to sleep, preventing life revolving around sleep concerns and catastrophic thoughts about the consequences of insomnia.

Mindfulness and self-hypnosis can be incorporated into insomnia treatment regimens, but their evidence is limited.

A wide range of Apps are available to facilitate sleep (for example CBT i coach) which may be useful.

For help with anxiety or depression the NHS has a network of services under the Improving Access to Psychological Therapies programme (IAPT). People can refer directly to these. https://www.england.nhs.uk/mental-health/adults/iapt/

Sleep devices.

Many smart watches offer sleep trackers. They detect sleep versus wakefulness and report the percentage of time spent in bed that is asleep. However, as with all wearable devices there is a danger you become addicted to monitoring which may not be helpful and they may not always be accurate.

Several active devices are available. For example, a smart mattress cools down when it's time to go to sleep which is claimed to promote sleep, warming up in preparation for waking while a smart pillow detects snoring and adjusts the head position to open the airway. Smart headphones fade out any audio when the wearer is drifting off to sleep and can also mask nocturnal disturbances such as snoring. The latest generation of devices are worn as an array of sensors around the head and actively monitor brain state and improve sleep through targeted electrical stimulation. However, these devices are only in the early stages of development.

8.9. Rest

We have seen that there is a suggestion that energy production may be compromised in migraine. Rest recharges our energy supplies and has been shown to boost creativity and benefit work time. Historically rest was prized as a gift but today, rest is seen as laziness and being busy is a badge of honour.

Alternate periods of uninterrupted work with breaks can recharge your batteries. And if your body is asking you to rest there's probably a good reason for it, and you should listen to it.

Mindfulness techniques can help with resting the mind. The parasympathetic nervous system facilitates rest, and this can be activated with breathing techniques. These aspects are described in section

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Conclusion to section 8

This section has reviewed a wide range of physical, social and psychological factors in the external environment that can be detrimental to migraine. There will be too many to focus on all at once and some will resonate with you more than others. Changing behavior and our ways of thinking is never easy as it is likely we have grown up with our patterns of behavior that have become established over many years.

In the next section we move inwards and explore a number of approaches that focus on the interaction between mind and body.

Section 9. Managing a favourable internal environment - navigating mind and body interaction.

Medical practice infers that we take a passive position. “Take these drugs to help you.” Mind-body techniques ask us to take an active role in our healing. They seek to better understand the influences of our internal life and regulate it ourselves.

This section draws upon holistic practices and describes techniques that quieten the mind, reduce the impact of unhelpful emotions, reducing the impact of chronic inflammation and its increased energy demands, and shift to a more parasympathetic mode of the nervous system. The underlying philosophy is that the mind, brain and body are all one system that need to be in balance, a concept we explored in section 4 and from a more theoretical perspective in Appendix A2.

Here we focus on five exercises that can help to restore internal harmony between mind and body: therapeutic breathing; mindfulness practices; body awareness techniques; guided imagery; and emotional freedom technique. All these approaches are being integrated into mainstream medical practice and have a developing evidence base. Many of them will overlap with each other.

It is best to try them out them within a set schedule as described in the accompanying online programme rather than trying them all at once. Some will resonate with you more than others. Focus on what feels right for you and what your body is asking you.

It may be that you feel overwhelmed by what is on offer. As an alternative approach, at the end of the section I have put the essential elements of each practice into one simple practice you may like to try, and which can be used in different circumstances. However, it will be helpful to do your homework first and at least gain an understanding of the practices as outlined here before considering this simple integrated model.

More recently there has been an interest in “micro acts” of holistic practise, suggesting that the frequency of practise is as important as the length of sessions and consistency may be more useful than the duration of an individual exercise. This is a particularly useful approach if you find it difficult to commit significant amounts of time to a practise and very much like exercise in that short bursts of exercise seem to be as effective as more prolonged periods.

9.1. Therapeutic breathing.

The therapeutic use of breathing techniques goes back thousands of years and is a key part of many meditative practices. At its most basic, focussing on our breathing acts as a neutral anchor helping us to get out of our brains and into the body.

Breathing is unique in that it is directed by both conscious and sub-conscious control. It is intimately linked with mental functions through a complex array of mechanisms that include direct action on brain activity and modulation of the autonomic nervous system. (We can witness this in action when we spontaneously take in a sharp breath prior to a challenging event stimulating our sympathetic nervous system. Conversely, we let out a sigh of relief activating our parasympathetic nervous system following the removal of a stressful event.)

Figure 9.1 shows an ECG that demonstrates how breathing has a direct effect on heart rate

through the autonomic nervous system. Heart rate slows as we breathe in. (A phenomenon known as sinus arrhythmia).

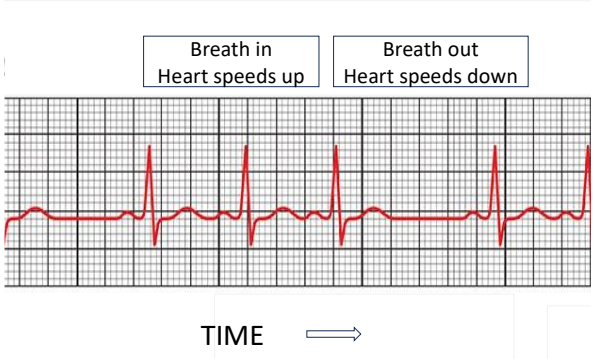


Figure 9.1. An EEG showing the impact of breathing on heart rate. Each spike is a heartbeat.

There are many breathing practices that help us get out of our brain and support the autonomic nervous system. For example:

- Conscious connected or coherent breathing is the simplest and can be used by anyone. This is paced and regular breathing without a pause between inspiration and expiration. It helps to maintain an equilibrium state and to facilitate a greater awareness of our body processes.
- *Parasympathetic breathing*. Making the exhalation longer than the inhalation can stimulate the parasympathetic system. Conversely, making the inspiration longer than the expiration can stimulate the sympathetic system.
- Other more intense approaches include Spiritus and Holotropic techniques but these are delivered by a holistic practitioner and can be quite challenging.

A simple breathing exercise

The audio practice below takes us through a simple breathing practice based on coherent breathing, breathing in for a count of 4 and out for a count of four without a pause. Although it sounds basic, it helps us to quieten the mind, connect to our body and stabilise the autonomic nervous system.

Audio Holistic practice

Here Georgie runs through a simple breathing exercise which is an important base for other holistic practices. (14 Minutes)

https://youtu.be/vSc1G9-xgXI

9.2. Mindfulness practice

Our current environment encourages us to be in a continual state of mental circulation. Thinking of what has happened in the past and leapfrogging over the present to think how we can control the future. The themes of modern life are activity, movement and planning. In doing so we miss the state of inner peace and stillness that comes from removing ourselves from this treadmill.

Reflecting on what has gone before and planning for the future are obviously important. As we have seen in section 4, prediction is an important mode of functioning for the brain. But the process can easily become counterproductive as we hang on to our recycling chains of thoughts and their attached emotions.

A way of Being that runs parallel to this world of the future and the past is the "Present Moment". In many aspects of our life, the past has gone and can't be altered, and the future is inherently uncertain. The experience we're having right now is not just a means to an end but an important state of Being. This is called a state of " Presence."

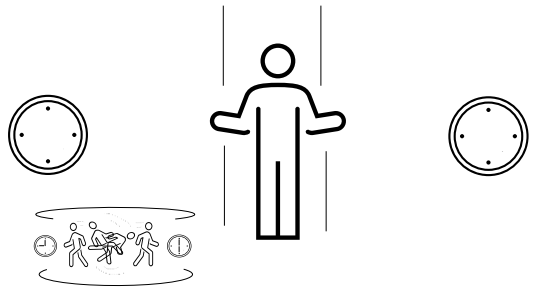


Figure 9.2. At peace in the present moment or presence.

Meditative practises have been around for thousands of years but recently an approach known as mindfulness has gained increasing attention and is supported by a growing evidence base. (Appendix 8 gives a little more background to the practice.)

From the perspective of migraine, the objective is to quieten the overactive brain. It also benefits in anxiety and depression which can be associated with migraine.

The aim is to do this by:

- Quietening the mind.
- Escaping from our tendency to get caught in our trains of thoughts as our mind plays back and forth between the past and future. "*What if I did this, if only I had done that, I wish I could be like……"* Most of our worries are related to past actions that could not be changed or future concerns over things that might not happen or over which we have no control.
- Encouraging an awareness of the constant stream of judging and reacting to our emotions that we get caught up in and learn to step back from them. Emotions are designed to be short lived and facilitate and direct action, not to be attached to thoughts. Mindful attention can help us respond more reflectively, rather than just react.

Mindfulness does this by:

- Encouraging us to live more in the moment rather than ahead or in the past. The aim is an immersion in what is happening in the present moment without setting up chains of thought into the past or future.
- Preventing things being labelled as good or bad which can lock us into mechanical reactions and emotions of which we are often not even aware.
- We are seeking to create a clear awareness of exactly what is happening as it happens without the mind wandering off. To accept each moment as it comes and be fully with it rather than chasing our thoughts.

Formal mindfulness practice.

There is no strict rule as to length of practice. Like physical exercise, anything is better than nothing. Perhaps try starting with 5 minutes and gradually extending this to 15 minutes which you can do daily.

Get comfortable

Ensure you are in a comfortable position. It is usually helpful to gaze at an object in the mid distance without focussing on it, but the eyes can be open or closed.

Breathing as a peaceful anchor

The breath functions as a focus for our attention and affects a peaceful centre. It acts as an anchor to which we can return if the mental treadmill starts rolling. If your mind wanders off the breath, notice what it was that took you away and gently bring your attention back to the breath.

Acceptance without judgement

Acceptance of thoughts without judgement is an important part of this practice. If a thought comes into your mind just observe it. Don't categorise it, judge it or react to it. You have the power to choose how to relate to your thought. What matters is how you handle it and who you choose to be in that moment.

Welcome it rather than actively pushing it away. Just let it float downstream or drift like a cloud or float like a leaf until the next thought comes along.

Take each thought and each moment as it comes and be with it fully as it comes without reacting to it. If you find yourself chasing off downstream with the thought, return to your anchor of your breathing.

This encourages us to observe our thoughts and feelings without labelling or judging them good or bad. Without self-criticism or shame.

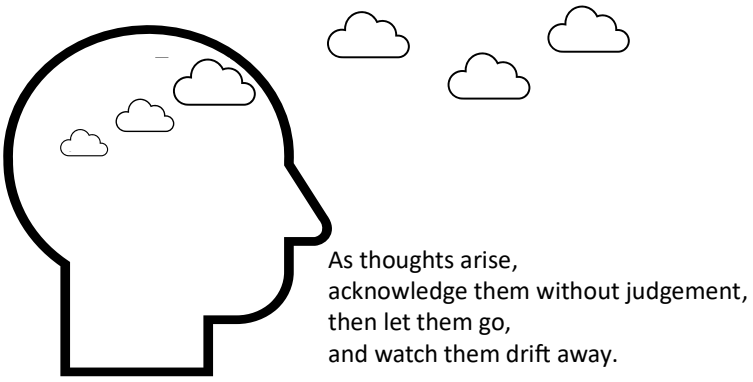


Figure 9.3. Detaching yourself from your thoughts?

Thoughts will keep on coming back. The ego loves to hold onto problems - it gives it an identity. And what resists persists. So, when we are aware of our ego kicking in and judging a situation, rather than push it away, thank it and accept it for what it is before moving on. For example, rather than thinking "I am letting everyone down because of my migraine", you might say" I am having the thought that I am letting everyone down."

Informal mindfulness - Living more in the present.

A complementary starting point is to practice mindfulness at opportunities during the day wherever you are. It could be a quiet moment while you are waiting in the supermarket queue. What is the situation? What thoughts are you having? Can you witness them without judgement?

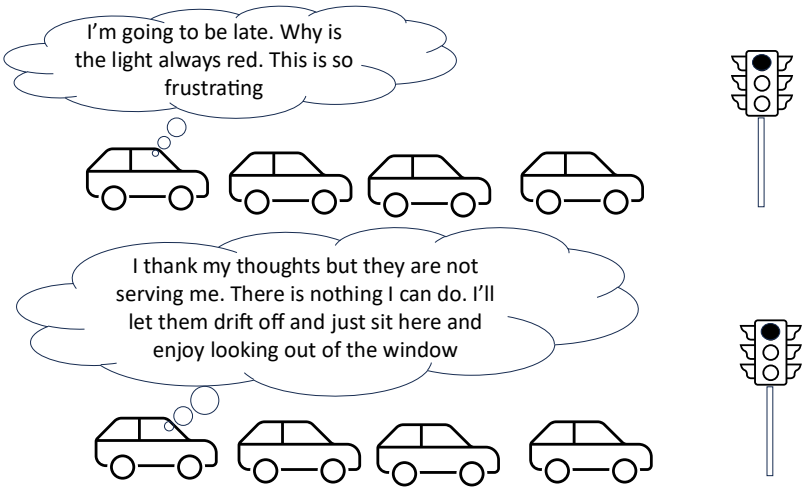


Fig. 9.4. An exercise in informal mindfulness. Witnessing then accepting things for what they are. What is the point of being distressed over what you do not have control over?

An exercise in growing mindful awareness

Another exercise you may like to try is when you first become aware of something, recognise there is a fleeting instance of pure awareness before the conscious mind takes over and clamps down it – labelling, deconstructing it and invariably judging it. This sets off a whole train of thought about it.

This original moment of pure awareness is mindfulness or the state of presence. Presence can be thought of as pre – sense or pre-sensation. That is a state out of time before we latch onto our sensations and label them.

Try and practice extending that moment before the brain takes over. For example, look at a cup. Immediately a whole stream of thoughts past and future will start – "I like the blue colour, this is my favourite mug, it's time for another coffee. Have I had too many today?" Try and just look at it without any labels or judgements. The aim is to promote the awareness that exists independent of our usual trains of thought. Practice extending this gap between awareness and labelling.

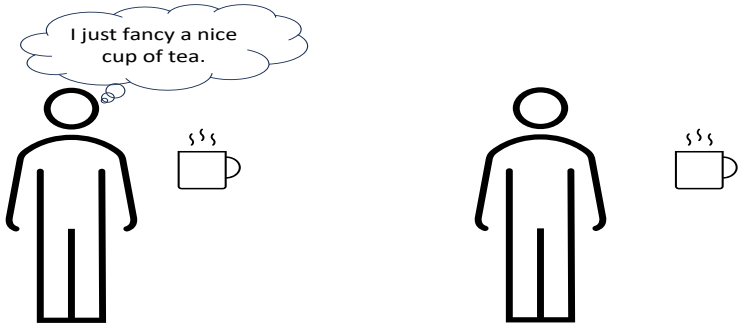


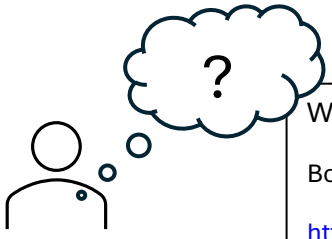
Figure 9.5. Growing the gap between awareness and recognition

Mindfulness to help a migraine attack

Distraction techniques can be useful for pain, but invariably the more you try to push it away the greater it grabs hold of your attention. The battle with the pain causes increased stress and frustration only to increase the vicious cycle of tension, more anxiety and more pain.

Using mindfulness to deal with pain is possible but more challenging and demands a much greater degree of practice. The aim is to be aware of the reactions to the pain. For example, "this is killing me", "I can't stand it any longer", "how long will this go on." Recognise these as just thoughts, understandable reactions of your own mind. When you feel what you are experiencing as pure and simple sensations, at that moment it becomes easier to accept them simply for what they are – taking each moment as it comes. By sitting with the discomfort and accepting it as part of your experience in the moment, it can be possible to relax into physical discomfort.

Mindfulness is not a simple fix and takes time to master but it is worth persevering.



Want to know more about Mindfulness

Book. The Power of Now. Echart Tolle.

https://www.nhs.uk/conditions/stress-anxiety-depression/mindfulness/ also contains useful information on mindfulness from the perspective of anxiety and depression.

https://www.torbayandsouthdevon.nhs.uk/uploads/managing-pain-through-mindfulness.pdf is a useful resource.

Electrical brain stimulating devices to facilitate mindfulness

Electrical devises are being introduced that claim to induce similar states to meditation, but their evidence base is poor. Binaural beats are also claimed to facilitate meditative states. (See section 10.2.)

9.3. Body or Somatic techniques.

Historically, we have drawn away from the body and see it as something to support the brain rather than being part of an integral part of who we are.

Greater body awareness can help by:

- Making us aware of the chronic inflammation or stress held in the body. "The body keeps the score." Bringing this to light can help relieve the burden. (See chapter 4).
- Focussing on the body gets us out of our minds. It is easier to stay present as the observer of your mind when you are rooted within your body.

Some techniques you may like to think about to get more in touch with your body:

i). *Formal approaches* such as Yoga and Tai chi.

i). *Move your body and dance*.

Put on some music that helps you to feel and witness yourself. Just move with the emotions and move in ways your body takes you. Listen to the music with your whole body. Feel the music flowing all over your body and see the sound and taste its texture. As it moves through you can you feed its colour and texture, its smell and taste, its light and darkness?

iii). Fine tuning the senses.

Imagine you have a dial that tunes in your sense of hearing. You can turn the dial up from 1 to 10. Turn your attention to a sound and see if you can play with the dial. With this practice, this may be useful when you are exposed to unhelpful stimuli. Try the exercise with smell and light.

iv). *Body awareness meditation and visualisation exercise*.

Start with using your breathing as an anchor. Then focus in turn on each part of the body starting with the feet and then moving up towards the head. Create an awareness of each part as you focus on it and imagine you are breathing in and out through that part. As you breathe in imagine you are invigorating that part and as you breathe out the tension is moving out with the exhaled breath. When you feel you have relaxed one part move on to the next. (See exercise below).

v). Trauma or tension release exercises (TRE).

It has been observed that people who spontaneously shiver following traumatic events suffer less after the event. Animals also shake their body when they get stressed. Based on this observation trauma or tension releasing exercises were developed. A formal series of exercises have been designed and can be seen on: https://www.youtube.com/watch?v=FeUioDuJjFI&t=541s.

It is suggested that TRE is best done under a qualified therapist as they can be emotionally challenging. However just shaking a part of your body and allowing it to continue spontaneously is simple and possible and can be helpful. You can stop voluntarily anytime.

Somatic experiencing is a technique based on similar principles but under the supervision of a holistic practitioner.

Audio Holistic practice

Here Georgie takes us through a body awareness exercise that helps us re connect with our bodies. (12 Minutes)

https://youtu.be/RcE9K56cgll

9.4. Visualisation or guided imagery

Visualisation, or guided imagery is a powerful technique that involves using mental images to promote health benefits. It has been shown to be effective in a wide range of clinical areas including stress reduction and pain. Visualisation exercises may feel challenging at first but there is considerable evidence to support their benefit and indeed virtually all professional sports people will draw upon this technique.

Whereas mindfulness aims to reduce the overactive brain processing, visualisation aims

to rewire the predictive model or expectations on which the brain processes action. It is a form of mental rehearsal that can activate nerve circuits involved in focus, motivation and emotional regulation. It can build confidence, refine skills and better prepare for challenges.

Here, Georgie takes us through three visualisation exercises, two of which are aimed to support you when you are in pain. The first one is very simple and useful for addressing unhelpful thoughts or emotions. Try them and see if any of them feel right for you.

Here is a short 4-minute video from the BBC on visualisation more generally:

https://www.bbc.co.uk/videos/ce9je4yr8vpo

An exercise to help reduce the impact of a thought or unhelpful emotion.

Here Georgie takes us through a visualisation to help release difficult thoughts or emotions. (8 Minutes)

https://youtu.be/--cIQ79B8KU

An exercise to try when you experience pain.

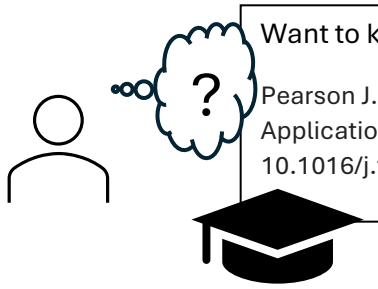
Here Georgie takes us through a visualisation for pain relief or any distressing situation. It is based on imagining a soothing light for pain relief. (9 Minutes)

https://youtu.be/BWna5M0a73E

An exercise to try when you experience pain or any type of discomfort.

Here Georgie takes us through a more advanced guided meditation known as compassionate reframing. It is an approach to help us deal with pain or discomfort of any type – to deal with an experience without attaching it to our story. (9 Minutes)

https://youtu.be/ZhvwjrcJhKE



Want to know more about imagery?

Pearson J. Mental Imagery: Functional Mechanisms and Clinical Applications. Trends Cogn Sci. 2015 Oct;19(10):590-602. doi: 10.1016/j.tics.2015.08.003. PMID: 26412097; PMCID: PMC4595480.

9.5. Emotional freedom technique.

Emotional Freedom technique (EFT) is not a cure for migraine but can help with unhelpful emotions or the feelings associated with migraine. It is a pragmatic approach based on three components:

- Tapping. Similar techniques (tapping and eye movement) are in accepted medical use for conditions such as post-traumatic stress disorders.
- A mantra often based on a commitment to self-care and compassion.
- The use of meridian points that are also used in acupuncture techniques. This is claimed to help to unblock energy flow.

EFT claims to help by: reprocessing or re-wires the subconscious stories we tell ourselves; cultivating an attitude of acceptance and self-compassion; releasing unhelpful emotions that can be hidden from view.

Although the concept may seem challenging from a Western medical perspective, evidence is emerging that it is effective.

I want to deviate a little here and look into the evolution of EFT as an example of the introduction of a holistic practice into mainstream medicine. See Box 1. A pragmatic approach from a holistic practice perspective would be: does it work? – yes, many people find it beneficial; does it have potential for harm? – no; does it cost anything? – no.

- Introduced in the early 1990s and universally rejected by mainstream medical practice as a "hotchpotch" of unscientific practices underpinned by energy medicine.
- In 2018, NICE, the government body that regulates clinical guidelines, stated that it merited closer study. An evidence base that supports its use begins to emerge
- In 2022 a review summarising evidence to date concludes "EFT is efficacious for a range of psychological and physiological conditions. Comparatively few treatment sessions are required, treatment is effective whether delivered in person or virtually, and symptom improvements persist over time; treatment is associated with measurable biological effects in the dimensions of gene expression, brain synchrony, hormonal synthesis, and a wide range of biomarkers; it represents a safe, rapid, reliable, and effective treatment for both psychological and medical problems. (Church D, et al. Clinical EFT as an evidence-based practice for the treatment of psychological and physiological conditions: A systematic review. Front Psychol. 2022 Nov 10;13:951451.)
- It remains rejected by many psychologists, citing poor research methodology in studies of effectiveness and explanations that do not fit current understanding. Perhaps the fact that it needs no input from psychologists is relevant?
- The key questions are: Does it work for the individual? – yes in many cases. Is it easy to do? – yes. Does it cost anything? – no. Does it have potential for harm? – no. Does it really matter how it works? – not really.

Box 1. Some thoughts around EFT.

Here we consider two possible structures you may like to try. The first comprises of an acknowledgement of what is happening followed by a supportive message of self-compassion (See Section 11 for more information about self-compassion.)

1.) The first step is to decide on a key statement that is most appropriate for you. Think of a statement in the format of:

"Although I - *statement*....., I choose to deeply and completely love, honour and respect myself."

For example,

"Although I have anxiety due to my migraine, I choose to deeply and completely love honour and respect myself."

or

"Although I feel so despairing about the impact my migraine has on me, I choose to deeply and completely love honour and respect myself."

or

"Although I feel my pain drags me down, I choose to deeply and completely love honour and respect myself."

Try and include "I" in both halves

of the statement. Use this statement on each of the tapping points as described below.

2.) Allocate a number between 0-10 to reflect the feeling in your statement, 0 being unaffected and 10 being the worst you can imagine. This allows you to monitor any impact of your tapping therapy.

3). Start in the middle of the outer edge of the palm opposite to the thumb – "the karate chop point." (See figure 9.4). This point is only used at the start of the session, so you don't need to visit it again. As you are tapping, repeat the statement three times concentrating on what you are saying.

4). Tap each of the points below with two or three fingers several times while you are saying the statement three times as before:

i). Top of head

ii). Where the eyebrow meets the nose.

iii). The outer angle of the eye.

iv). Under the centre of the eye.

v). In the midline directly under the nose.

vi). In the midline directly under the middle of the lower lip.

vii). At the end of the collarbone just before it reaches the breastbone.

viii). At the edge of the chest wall horizontal to the nipple line.

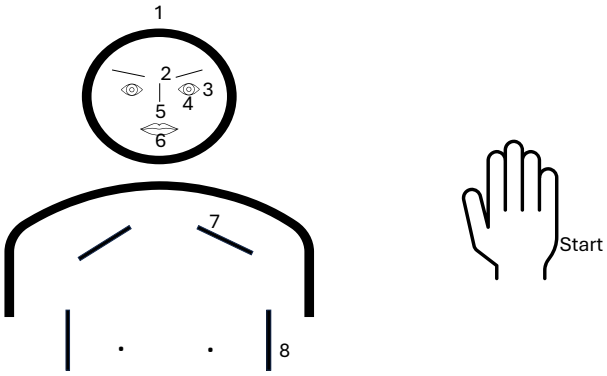


Figure 9.4. EFT tapping points.

Take a slow and deep breath out after each place you tap. The frequency of tapping is not critical - not too slow or not to fast. You can just stick to one side of the body, and it doesn't matter which one.

xi). Reassess where you are on the scale between 0-10. If things haven't improved, then you can try again.

There are no hard and fast rules about how often you do this but monitoring where you are on the scale will give you a good starting point. You could do them a couple of times a day on a regular basis or just when needed.

The second approach is to use a simple affirmative sentence which is different for each tapping point.

For example:

- Even though my head hurts right now, I am doing my best."
- "This pain is difficult, and I am allowed to be gentle with myself."
- "My nervous system is very sensitive, and I am listening to it."
- "I don't have to fight this moment."
- "I can breathe and let my body settle a little."

- "Even though have a migraine is coming, I am safe right now."
- "I can notice this fear without letting it take over."
- "I have handled migraine before, one step at a time."
- "Right now, I am okay in this moment."

There is lots about EFT on YouTube. For example, https://www.youtube.com/watch?v=BPqGjcxoPS8

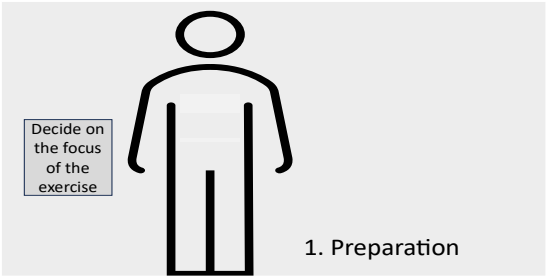
Note the starting point may differ in some demonstrations, but it is easier to start with the top of the head.

9.6. A generic holistic practice that integrates breathing, mindfulness, tapping, self-compassion and acceptance. The "Exeter Micro Practice."

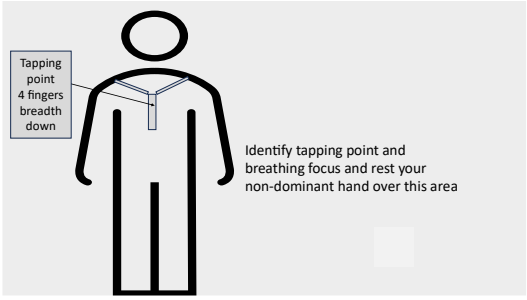
I have tried to put together a simple exercise that integrates the main components of the holistic practices described above. It combines elements of breathing, visualisation, mindfulness and tapping. If you only want to choose one holistic practice to focus on, this might be for you. It may give you a better understanding of what is going on if you read the full holistic practice section first.

This is a simple five stage practice of preparation, simple breathing, mindfulness and affirmation that can be applied quite generally across different applications. For example, dealing with unhelpful emotions, or helping during a migraine. It is not a rigid prescription. Follow your intuition where it feels right to do so. At the end of this section there is an audio you may find useful.

1. Preparation.



1a). Find a quiet position where you feel comfortable. Decide what you want to focus on. For example, in this case we want to ground a core value of self-kindness. (This is discussed in more detail in section 11). Or perhaps you want to develop more confidence in dealing with a migraine attack, or reduce your general level of anxiety.

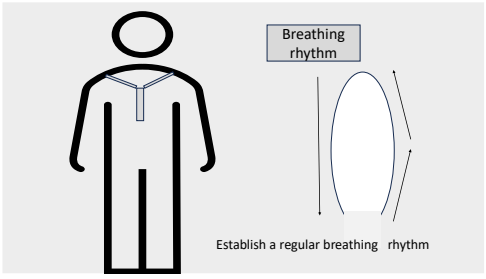


1b). Identify a breathing focus/ tapping point in the middle of your breast bone above your heart space. Place your non-dominant hand over this area.

2. Establishing a regular breathing rhythm.

Breathe in and out equally to a count of four for each in breath and out breath. If you can, think of the breath rising from the bottom of your chest upwards as you breathe in (belly to chest) and let it go in one long movement when you breathe out using the natural recoil of your chest. Visualise that you are breathing into the heart space beneath your hand.

When you are ready, stop counting and just focus on the breathing you have established. Try and breath through your nose but don't worry if you cannot. Think of your breathing as in a circular motion as shown in the diagram.

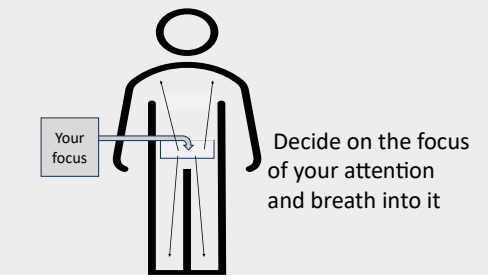


3). Ground yourself in the present moment. At the top of the in breath say *"I am"* and at the bottom of the out breath say *"here now."* If you can't say this out aloud or if it feels better to do so, say to yourself *"I am"* during your in breath and during the out breath say to yourself "here now." Feel these statements soaking into every part of your body.

If any thoughts come into your mind, just notice them, acknowledge without judging them, but don't follow them. Just bring yourself to your anchor of the breathing

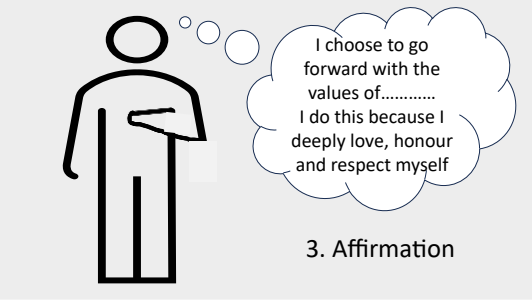
When you have established a regular and peaceful rhythm and feel it is time, move onto the next step.

4. Visualisation



Connect and ground your decided focus using visualisation. For example if you want to focus on confirming a value of self-kindness, imagine breathing in kindness to the area below your hand on your chest and as you breath out, breath it into every area of your body. Feel it percolated to every cell. Conversely, if you want to deal with a negative emotion or issue, breath it in from where you feel it to the space beneath your hand and then breathe it away on the out breath. When you have established this and it feels right to do so move on to the next step of affirmation and consolidated by tapping.

5. Affirmation and consolidation of your focus with self-compassion



While tapping, affirm your focus as in the emotional freedom technique. (Section 9.5). Leaving your hand where it is, tap with as many fingers as you feel comfortable with at a rate that is right for you. As you do so continue with you breathing rhythm and say out aloud if you can your affirmation statement. You don't need to co-ordinate this with your breathing, just continue with the rhythm you have established.

As another example, Say you wanted to address the problem of anxiety or despair that you are having about your migraine.i.e. Getting rid of a negative rather than reinforcing a positive. In Step 4 - visualisation, imagine breathing in the problem from every area of your body into your heart space below your hand and as you breathe out imagine it being discharged and released from your body. Then move on to your affirmation while tapping *"I choose to go forward with less anxiety as I deeply love, honour and respect myself."*

Audio Holistic practice. The Exeter Practice.

Here I take you through a practice to ground your values based on integrating a number of practices we have already met. (6 Minutes)

https://youtu.be/GC1VBzHIDu8

Conclusion to section 9

This section has explored five holistic practices that aim to harmonise the mind and body in a way that will be beneficial for migraine and its associated problems. I have integrated them into one simple holistic practice you may find useful. None of them are prescriptive - approach them in a way that feels right for you.

These practices are underpinned by the notion that mind, brain and body are all one complex system. In the next section we expand this concept and explore the importance of harmony within a broader context that includes our external environment. and the benefits this can bring.

Section 10. Managing favourable interactions between internal and external environments. Looking beyond the body.

This approach sees the complex network of ourselves with our environment as a living system in its own right. We are not separate from nature. We do not function as solitary units but in relationship with our external environment to which we are coupled, as we take in sensations and act upon the world. This approach finds expression in several Eastern traditions such as Hinduism and Daoism.

What does this mean from the perspective of better migraine control? The suggestion is that a better harmony with our environment helps to quieten the mind. From a theoretical perspective, the alignment facilitates information flow and enhances our ability to predict what we need to do to achieve our objectives in the world. These themes are explored in the appendices from the perspectives of complexity theory and the free energy principle.

Here we explore nature immersion, the potential benefits of social interaction and music. The more contested areas of energetics and spiritual healing are also considered.

10.1. Nature Emersion

Evidence suggests that being amongst nature reduces negative emotions, can reduce stress, alleviate pain and restore a sense of well-being.

Heart rate and blood pressure fall, stress hormones decrease, and we are calmer and clearer minded. One study found that when patients can see trees and greenery from their

hospital window they recover faster and need less pain medication than those who only look out onto a wall.

It's not just visual sensations that are important but also smells and natural sounds. Bird song is useful for reducing symptoms of stress whereas the sound of water can improve mood. It has been suggested that to maximise the benefit you need to spend at least 20 minutes at a time in nature and ideally daily. Gardening is also beneficial Surrounded by plants may provide benefit.

Some things you may like to think about:

- Aim to surround yourself in a natural setting.
- Rather than have a specific destination or purpose on a walk, aim on immersing yourself in the walk itself.
- Leave your worries at home. Taking them with you may make them worse.
- Walk slowly and look at the details of your surroundings. Take in the shape, texture colour and smell. Try and connect to them.

If you can't get into a green space, you may like to try listening to recordings of a bird morning chorus can have benefits. There are many tracks on Spotify and YouTube. They are best heard with headphones. Listen attentively without effort, hearing each sound as it comes. As with mindful practise, if your attention wanders just turn your attention back to the sound. Other natural sounds such as falling rain can be beneficial. For example,

https://www.youtube.com/watch?v=auhwFwx1DPY&t=269s

Audio Holistic practice

Here Georgie takes us through a guided meditation that can be used on a nature walk. (9 Minutes)

https://youtu.be/k2Iiv2FPntY

10.2 Music therapy

Most of us will be aware that music can have a profound effect on mind and body. Evidence suggests that music helps brain synchronisation, can help memory and mood and puts the brain into a mode of activity where its energy requirements are less. As our tastes are very subjective, the type of music will differ between individuals.

Research has shown that uplifting music can activate the “task positive” part of the brain we met earlier, interrupting negative loops of thought. An interesting study showed that this is facilitated by actively tapping along (we met tapping in section 9), breathing in rhythm or humming internally.

Binaural Beats

A related phenomena is the effect induced by “binaural beats.” This is when two separate frequencies are played and interact to form one frequency. It is claimed that they can change brain wave activity and have a positive effect on brain function. It has been suggested they can help in migraine although the evidence is poor. The most effective frequencies depend on your objective:

- Delta (1 to 4 Hz): Deep sleep and relaxation
- Theta (4 to 8 Hz): Deep sleep, reduced anxiety, relaxation, meditative and creative states

- Alpha (8 to 13 Hz): Relaxation, positivity, and decreased anxiety
- Lower Beta (14 to 30 Hz): Increased concentration alertness, problem-solving, and improved memory.

Binaural beats are readily available from sources such as YouTube and Spotify and are best heard through earphones. Most tracks will provide music underpinned by binaural beats, but pure beats can be used. Lower frequencies are said to be more helpful in migraine.

There are no specific recommendations on time of exposure, but a pragmatic approach would be to start with 10 to 15 minutes a day extending two up to an hour a day but ultimately, it's a matter of finding out what might be right for you.

10.3. Interaction with others

Social interaction has been associated with a wide range of benefits that include improved well-being, better cognitive function, improved mental health and physical benefits such as enhanced immune function.

One large study found that following a heart attack, life expectancy was greater when people had better social relationships than the influence of all other factors including stopping smoking.

Most general practices will now have a social prescriber who can signpost you to a wide range of opportunities.

Figure 10.1 shows some factors that can facilitate social interaction.

- *Self-awareness*. An important starting point is to be aware of where your feelings and emotions are together with your boundaries.
- *Active listening*. Paying close attention to what others are saying and demonstrating that you are engaged by responding appropriately. Be mindful of the difference between “illuminators” - people who are curious and make the other feel heard, seen and valued; and “diminishers” those that don't ask any questions, and not interested in the other and just seek to tell you about themselves.
- *Empathetic listening*. Show genuine concern to understand and share the feelings of others.
- *Authenticity*. Don't try to be someone that you are not.
- *Being mindful of your body language*. For example, open and relaxed postures are beneficial.
- *Social media interactions*. Don’t let them distract you from face-to-face meeting.

Figure 10.1. Factors that can enhance the quality of social interaction.

The opposite of social interaction is loneliness, but the concept of solitude is different. There can be rewards looking inwards for self-understanding rather than being defined by group identity. It could be argued that true peace comes from within rather than aligning ourselves with cultural expectations of socialisation. Like everything else, it's probably a question of balance.

10.4. Energetics

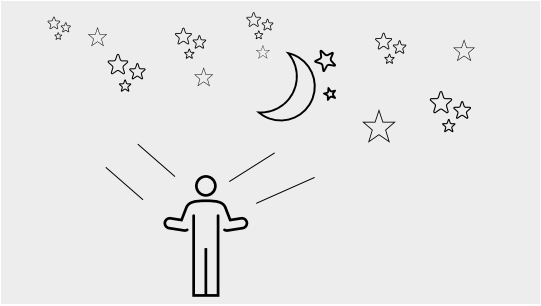
A more contested area is energetics which focuses on the concept of energy flow. Energy practices are based on the idea that an unseen "life force energy" flows through us and is what causes us to be alive. If one's "life force energy" is low or its flow is inhibited, then we are more likely to get sick or feel stress.

Eastern traditions are based on the premise that the flow of energy in the body is key to health. Reiki healing and acupuncture are examples of energetics. They claim to work by unblocking energy channels that flow in the body.

Acupuncture has an evidence base in migraine and is recommended by the government agency NICE without any claims of how it works.

Although the concept of energetics is dismissed by modern science, a more nuanced approach may be appropriate. This is explored further in Appendix A9.

10.5. Developing a sense of awe



Whether being in an impressive natural setting, under the stars, or listening to uplifting music it is claimed that a sense of awe has a number of benefits including:

- Reduces stress & anxiety
  Lowers cortisol levels and quiets the brain's default mode network
- Improves mood & mental well-being
  Decreases depression and boosts joy, meaning, and life satisfaction
- Enhances heart & immune health
  Lowers blood pressure and inflammation; boosts vagal tone
- Promotes social connection & kindness Increases empathy, generosity, and cooperation

Evidence suggests ideally practice for 5 minutes a day but a few times a week can show benefit.

10.6. Spiritual healing

Spirituality is a contested term, meaning different things to different people.

In its simplest form, it infers that there is “more to meet the eye” in life. Just because we can’t see or measure something, it doesn’t mean it doesn’t have an effect. This is the area of metaphysics – literally translated as “beyond physics.” The suggestion is that the methods of science cannot answer all questions about the nature of reality

Religions set metaphysics within a formal context, but spiritual practises don't require a religious framework.

There is no consensus about what constitutes spiritual healing, but it can range from prayer healing to a view that sees all mind body practises as part of its general framework. Further information can be found at https://www.spiritualityandpractice.com/about/what-is-spirituality.

Conclusion to section 10.

The benefits of nature emersion and socialisation are well recognised.

Energetics and spiritual healing are more controversial areas and discarded by science which takes the view that if we can't observe or measure something it cannot be of interest or value. It may be appropriate to take a more circumspect view. Perhaps a pragmatic approach would be that if this approach is beneficial, has no potential for harm and offers value for money if set within a commercial framework, it should not be dismissed out of hand.

Section 11. Letting go of the story. Reclaiming sense of self.

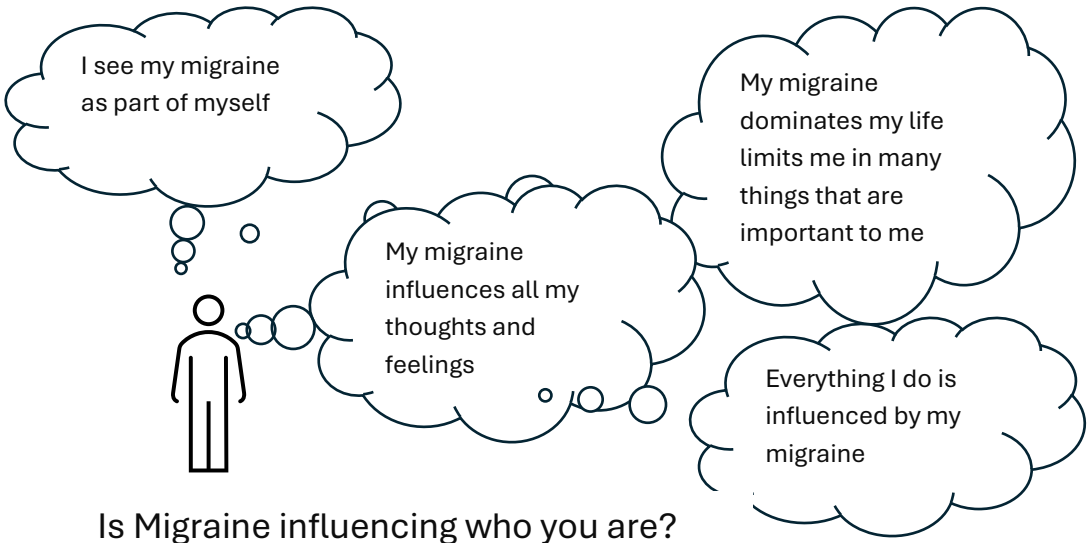
Migraine is more than a headache. It may stir feelings of anger, guilt, frustration, or anxiety—especially in a world that tells us we should always be happy and successful. Over time, it can affect how we see ourselves and even start to shape our identity.

If migraine is part of who you are, this section invites you to examine that identity and rewrite the story you may be caught up in. However, this section has relevance for all of us, whether we have migraine or not. We often understand ourselves through the stories we tell about our lives. But sometimes those stories become unhelpful. We can all get caught in some story that may not be serving us.

In this section, we start with the metaphor of a theatre to think about identity and how to rewrite your story. We then move onto some practical steps that focus on self-kindness and core values.

11.1. Is your migraine influencing who you are and your sense of self?

For many people migraine is just an inconvenience, but for some it will have a major impact on who they are and how they see themselves. Are you aware of how your migraine may be affecting your sense of self? Journaling that we met in Section 5 maybe a useful starting point. These are also some questions you may like to think about:



Is Migraine influencing who you are?

11.2. Who am I? The concept of ego.

In Western culture, how we see ourselves through the lens of our 'ego' — our appearance, thoughts, and emotions.

The ego is important as its main function is to direct our survival. However, when we over-identify with it and constantly compare ourselves with others — more stuff, prestigious jobs and roles, bucket lists, face lifts, it can become unhelpful. After survival, our ego pursues happiness as the ultimate goal. But happiness is only ever transient and relative. Are we caught in a happiness trap of our own making? The opposite of suffering is peace and hot happiness.

Your ego and sense of self can be caught up in your migraine. An important part of holistic practice is to be the detached observer of your ego and re frame it if it is not serving you.

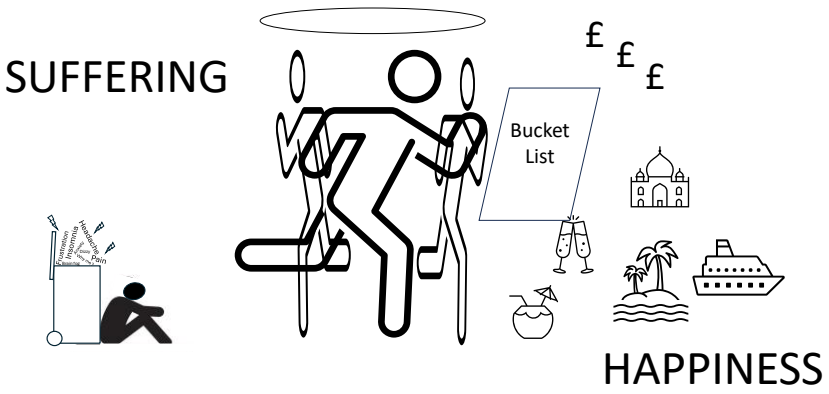


Figure 11.1. Are you caught in the ego's happiness trap? The opposite of suffering is peace, not happiness.

11.3. Who am I? A practical framework for understanding sense of self.

"All the world is a stage." The Theatre of Life.

There is a wide array of philosophical positions on the nature of self. (See appendix A10). In this section I want to take a pragmatic approach and start by thinking of life as a theatre where we act out our stories and construct the autobiography of our lives. Three areas of the theatre are described together with a basement.

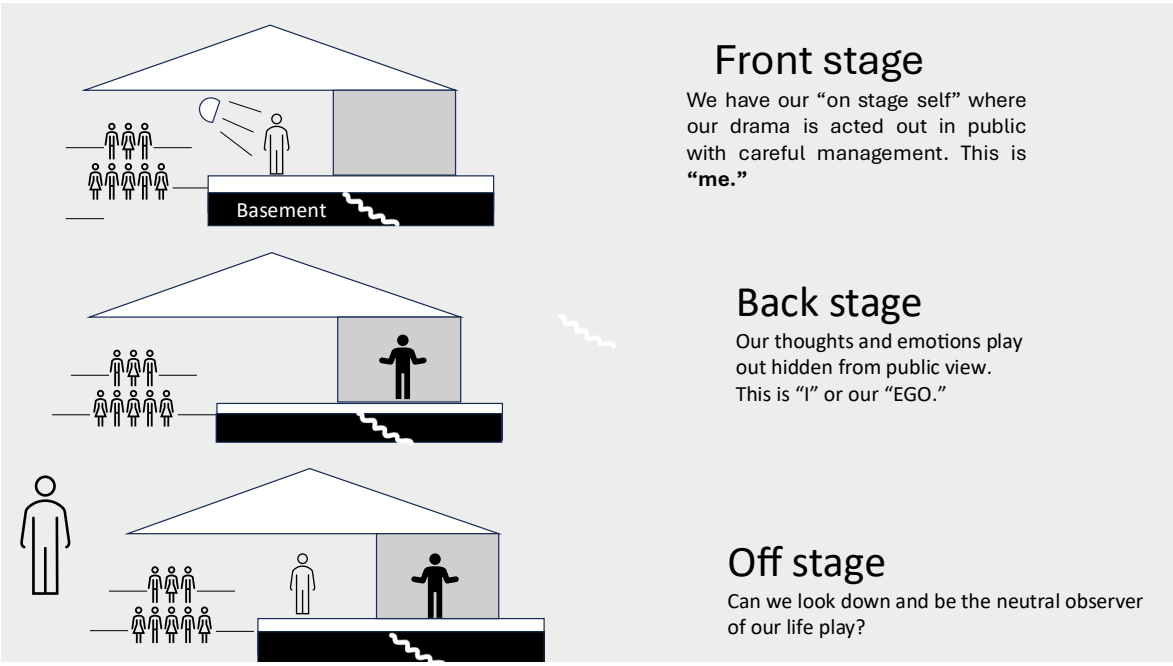


Figure 11.2. All the words a stage. But can we escape from the theatre? We can never be sure what goes on in the basement (our subconsciousness) and its impact upon our performance.

1*). Front stage.*

Here we perform for others our drama and act out our stories with their associated image management. Different facades are created and dismantled for different audiences with the application of our face paint.

Our autobiographical memory edits our story into “this is me.” Our concerns are invariably unexpressed, our coping mechanisms hidden from view.

2). Backstage.

This is our private inner world of thoughts and emotions. Migraine can live here fuelling emotions of guilt, shame, anger, frustration, and despair.

Front and backstage combine to form the sense of who we are or our “ego”. Our ego maintains its stream of internal language, protecting itself. Building on the past and playing out future options and possibilities.

3). The basement

We can’t be sure what goes on in the dark recess of our sub-concious. Here, unprocessed feelings from past experiences may hide, quietly draining our energy. Perhaps your migraine is telling you something its easier or safer not to hear or face up to?

Can you allow what might be there to the surface, to open the stage door and let it escape?

We have looked at this in Section 7.

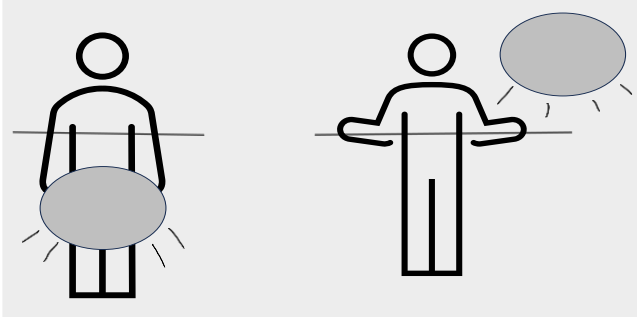


Figure 11.3. Holding things in the subconciousness may not be helpful. We are masters at hiding from ourselves that which we don’t know how to cope with. Like holding a balloon underwater, this takes up energy.

4). Off stage - the enlightened self

We can remove ourselves from the theatre all together and act as an independent observer of our existence. Watch ourselves with detachment as the play unfolds?

But we can’t abandon the ego completely, we need it to function.

A compromise. Breaking out into the open-air theatre.

Can we escape from the theatre and find a compromise, detaching ourselves from our unhelpful stories, thoughts and emotions? Perhaps, we can move our story to an open-air theatre? Here the stage is smaller, the air is clearer, there is no backstage or basement, and we have no need for our face paint.

In the next section we will look at ways in which we can make this transition.

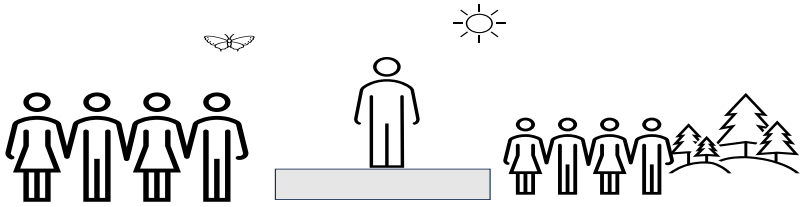


Figure 11.4. Negotiating a compromise with the ego. Can you break out into the open-air theatre?

11.4. Approaches to re-negotiating sense of self and building the open-air theatre.

In this section we look at some practical steps we can take to construct our new open-air theatre and develop a healthier sense of self.

It consists of four elements. An awareness of our thoughts and emotions without judgement, recognising that suffering is part of the human condition and so connects us to other people; kindness rather than criticism towards our selves; the importance of establishing our core values as a firm foundation; and being grateful for what we have Some of the techniques we meet have been visited in previous sections.

i). Awareness, non-judgement and acceptance.

Awareness. Our emotions have evolved to direct action, not to be attached to our thoughts in an internal unproductive dialogue. Can you be aware of your thoughts and the emotions attached to them?

You do have a choice how you react to a situation. For example, if you're angry about the situation in which you find yourself, there is a tendency to hold onto this emotion. This feeds it and allows it to develop as you give it more energy. Soon this reaction becomes so habitual that it becomes part of who you are.

Every emotion has a function helping you to make judgements and decisions but not to direct who you are.

Non-judgement. Can you adopt the stance of a neutral observer watching your emotions without judgement? Putting a judgement of good or bad on anything perpetuates its effect.

Think about the difference between saying "I feel sad" and "I am sad." In the former we are still watching and can make a decision, in the latter we are defining ourselves by it.

Acceptance. Can you address the issues you have control over and accept those without judgement that you do not? This is a difficult call. But most suffering comes not from the cause of the suffering, that is what it is, but the emotions and story you attach to it.

Developing a mindfulness practice can help here, moving our lives more to the present moment away from the chains of thought and attached emotions in which we can easily get trapped. (See section 9).

ii). Self-compassion

Self-compassion is about treating ourselves as we would a friend in distress - treating yourself with kindness rather than being critical and beating yourself up.

Like mindfulness it has been appropriated from Eastern philosophical practices. You can't start to be kind to others unless you are kind to yourself. This is a challenging but important concept which I unpack in a little more detail in Box 11.1 starting with the Buddhist foundations.

There are three elements to this concept. Firstly the Buddhist practise of *Tonglen*, literally "sending and receiving". Secondly the concept

of loving kindness and finally self compassion itself.

Tonglen aims to cultivate peace in the world by breathing in suffering and breathing out well-being from a position of "loving kindness."

Loving kindness is not a romantic or attached type of love but a concern for well-being of others irrespective of who that person is or without concern for anything in return. It is symbolic rather than literal and aims to develop a position of compassion.

Self compassion directs this concern to yourself. Even when loving kindness is directed to others it awakens self-compassion because: it softens self-judgement; it breaks down the barrier between self and others and alerts you to the fact that suffering is universal – you are not alone; it build inner strength and helps you to accept pain without resistance which is where the suffering arises.

Box 11.1. The road to self-compassion

A simple exercise in Tonglen

- Sit quietly and focus on the breath for a few moments.
- Bring to mind someone who is suffering. It may be someone you know or just people in general.
- Breath in and as you do so imagine breathing in their suffering.
- Allow that suffering to meet your natural compassion for freedom of suffering for all.
- Breathe out and as you do so send back kindness and compassion.
- Now direct the exercise towards yourself. Breath in and direct kindness and compassion to yourself. Focus on breathing into your heart space. Breath out and as you do breath out your suffering.

Some things to bear in mind when you think about self-compassion:

- Watch out for judgmental labels such as failure or guilt and words like "should" or "must". These are clues that you're not accepting yourself or your behaviour with kindness.
- Don't be harsh or criticise yourself. Recognise that everyone makes mistakes and experiences difficulties. Self-criticism activates the brains threat system whereas self-compassion deactivates it with beneficial results.
- Forgive yourself for any past mistakes. Look at them as part of learning.
- Replace negative self-talk with positive affirmations focusing on your strengths and achievements. For example, rather than "I am ashamed of how little I can do" perhaps: "I am worthy of love and kindness" and "I am doing the best I can."
- Give yourself some "me time." Do things that make you feel good about yourself.
- Repeat a "loving kindness meditation." For example, repeat the phrase "may I be happy, healthy and safe and live with ease." You can try repeating this phrase extending these thoughts to others including people you find challenging. (You, your family, your friends, people you know but don't like, everyone whether you know them or not.)
- Supportive touch can be beneficial. Place your hand over your heart and give yourself a gentle hug.

A range of self-compassion practices you may like to look at can be found at https://self-compassion.org/self-compassion-practices/

iii). Identifying and living by your values.

The suggestion is that a meaningful life isn't built on pleasure — it is grounded in values. Think about what truly matters to you. Your core values can act as your compass and give a firm foundation on which to re-negotiate your sense of self. Living by your values improves well-being and resilience.

This is in sharp distinction from our current focus based on emotional preferences rather than values, e.g. happiness.

Developing a Sankalpa

We will continue by following the Hindu concept of "Sankalpa." This reflects an intention or commitment to core values that underpin the way you want to live your life. (Literally a vow to connect to the highest truth.) Think about identifying your core values and

developing a Sankalpa for your day-to-day life. This will reconnect you with what truly matters and provides a strong foundation for a rewriting of your story.

Your core values may not be immediately obvious but here are some things to think about:

- Think about moments in your life when you felt truly fulfilled and satisfied - what were you doing? What values were you honouring in those moments.
- Reflect on people you admire and respect - what qualities do they possess that you value.
- Using a list of common values can help you identify your own - go through a list and see which values resonate with you the most. Some suggestions are shown in figure 11.5. (You can buy packs of core value cards that may help you decide.)
- Perhaps you could think about what you would like your obituary to say about yourself?

Responsible	Integrity	Tolerance	Flexibility	Curiosity	Courage	Modesty
Determination	Empathy	Generosity	Creativity	Dependability	Kindness	Humility
Compassion	Toughness	Assertiveness	Resilience	Dignified	Decisive	Successful
Thoughtful	Meticulous	Passionate	Accepting	Self-compassionate	Grateful	

Fig. 11.5. Examples of some values you may like to reflect upon. Select four or five that have most resonance with you. There may be others that are important to you.

It helps to shift any statement from the future to the present. For example, rather than saying "I want to be more compassionate" you might say "Compassion is my true nature."

Start your day with your Sankalpa. But simply reciting it is not enough. Try and ground it deep within you. Integrate into your daily routines, think of the conscious choices you make as opportunities to strengthen your Sankalpa. This will help to embed it into your subconscious mind. Section 9 offers some exercises you can draw on here. E.g. The Exeter micro practice.

Fig, 11.6 gives an example of how a Sankalpa might look for someone with migraine.

I am living more in the present moment. (Presence).

I feel compassion for myself and others. (Compassion).

I am accepting things as they are without judgement – good or bad. (Acceptance).

I am grateful for the positive things in my life. (Gratitude).

Figure 11.6. An example of a Sankalpa for someone with migraine.

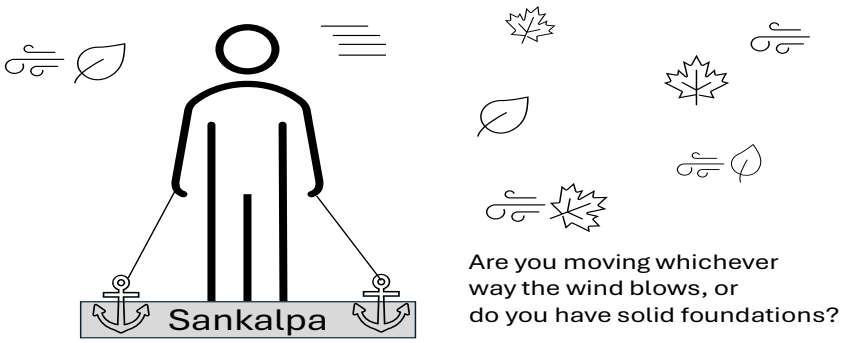


Figure 11.7. A Sankalpa or assertation of values can act as an anchor for your sense of self.

iv). Gratitude practice

Noticing even small things to be thankful for shifts your focus toward the positive. Even thanking your inner critic can soften its voice. You might like to think about a gratitude practice. An example of a simple gratitude practice would be: Pause and focus on the breathing; name three things that you're grateful for which can be big or small; add why it's mattered or was important to you. It is the noticing that is important.

Figure 11.8. Gratitude practice and self-compassion. Thank your inner critic.

11.5. Exploring what is in the basement. The impact of suppressed emotional trauma.

Many of us will experience traumatic experiences in our lifetime and these and the emotions attached to them will often lay suppressed beneath the level of our consciousness. This unprocessed activity consumes energy and induces chronic inflammation, both of which will exacerbate migraine. These issues and the importance of surfacing them have been considered in section 7.

Trauma as a direct result of your migraine can approached using the holistic practices that have been outlined in this handbook. For example, mindfulness and emotional freedom technique. However unconscious emotional drivers are best explored with a qualified therapist at a pace that feels right for you.

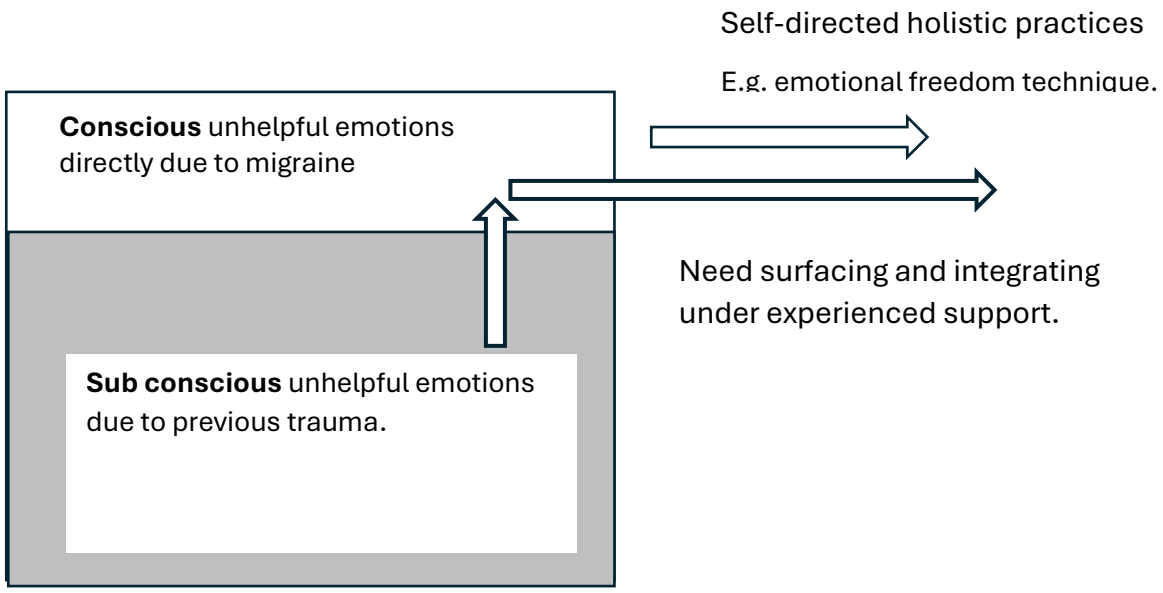


Figure 11.9. We hold on to emotions that do not serve us.

Conclusion to section 11.

For many people, migraine becomes an increasing burden as it impacts upon their sense of who they are and how they see themselves. This section has taken a practical approach, setting the issue within the metaphor of a theatre and offering ways in which we can renegotiate who we are. The key themes are acceptance, non-judgement, the identification of values that are important to us which gives us a solid foundation and gratitude practice. The importance of addressing emotions that are unhelpful to us is important.

Migraine may shape your life—but it doesn't have to define you, and you do have a choice how to move forward.

PART III). OTHER ISSUES ASSOCIATED WITH MIGRAINE.

Section 12. Managing other medical conditions associated with migraine

Migraine is associated with several other conditions that occur more frequently than in people without migraine. This is known as comorbidity. The reasons for these relationships are complex and include the influence of chronic inflammatory load, common genetic influences, and common environmental factors. The important associated conditions are shown below and are considered in more detail except asthma and epilepsy.

- Mental health problems, especially anxiety and depression.
- All bowel disease and in particular irritable bowel syndrome
- Fibromyalgia
- Asthma
- Epilepsy
- Restless leg syndrome
- Poor sleep (see section 8)
- Vertigo
- Lax or mobile joints
- Vascular disease
- Neurodiversity and neurodivergence

12.1. Anxiety and Depression

All mental health disorders are found more frequently in people with migraine. Most common are anxiety (2-4 times more likely) and depression (2 times more likely). These can add considerably to the impact of migraine and a vicious cycle can develop. Migraine causes anxiety and depression which in turn causes more migraine. As we have seen in section 4, anxiety and depression can activate inflammatory pathways further exacerbating migraine.

Approaches include management of causative factors, medical and psychological treatment and factors to increase resilience (See section 8.10.) The first critical step is to acknowledge you have a problem and seek help if you are not moving forward.

i). Anxiety

A more correct term is *generalised anxiety disorder* to contrast it with other conditions such as post-traumatic stress disorder and obsessional compulsive disorder. Anxiety is best thought of as a "worry disorder." It is distinguished from fear which is an appropriate emotional response to a threat. Anxiety is common in people with migraine.

An alerting response was an evolutionary adaptive process that helped us to survive in response to an appropriate stressor. (see section 4). For example, when our ancestors relied upon hunting and the avoidance of being hunted to survive. This response has not evolved for prolonged or repetitive periods of stimulation from a much wider array of stressors. Figure 12.1 shows the problem. Small amounts of stress are advantageous for

performance and survival, increasing arousal and priming us to "fight or flight." However, as the level of intensity or repeated low-level stressors increases, performance is reduced with resulting psychological and physical consequences.

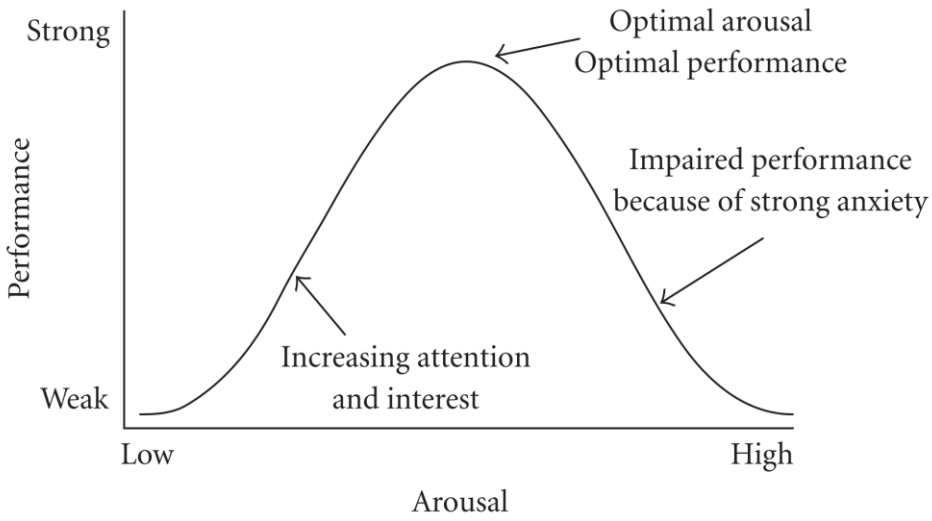


Figure 12.1 The relationship between performance and arousal or stressor.

There are several associated physical manifestations of anxiety including palpitations, dry mouth, excessive sweating, muscle tension, fatigue, restlessness, sleeping problems, irritability, and irritable bowel syndrome. Anxiety can also have a negative impact on concurrent physical illness and vice versa.

Of particular importance is the relationship with depression and often a mixed picture of both problems will develop. Self-treatment with alcohol or recreational drugs is a common problem and although there may be alleviation in the very short term, the underlying problem is worsened.

Do you suffer with anxiety? The General anxiety disorder-7 (GAD7) is a useful questionnaire which can be used for both diagnosis and following response to treatment. (See appendix A11). Approaches to treatment of anxiety are:

Non -pharmacological management:

- Self-directed help (E.g. http://www.moodjuice.scot.nhs.uk/anxiety.asp)
- Counselling. The key element of counselling is reflective listening to encourage thinking about and resolving one's individual difficulties. It does not involve giving advice.
- Exercise can be beneficial. (See section 8.)
- Cognitive behavioural therapy. (CBT focuses on how your thoughts, beliefs and attitudes affect your feelings and behavior and teaches you coping skills for dealing with different problems. It combines cognitive therapy (examining the things you think) and behavior therapy (examining the things you do). (See section 8).
- Holistic techniques. E.g. mindfulness, non-judgmental awareness and body awareness as we have already explored. These aim to reduce the impact of the endless chains of thoughts that contribute to anxiety and relax the mind. (See section 8). Relaxation therapy and breathing techniques aim to reduce sympathetic drive. (See section 9.)

NHS Talking Therapies is an NHS program for treating people with depression and anxiety disorders and you can refer yourself without seeing your GP.
https://www.england.nhs.uk/mental-health/adults/nhs-talking-therapies/

Pharmacological management

Drugs can be an effective way to manage both anxiety and depression with or without

psychological approaches. In the short term they can allow the brain to think more rationally, an approach which is invariably impeded under conditions of anxiety. Drug options are shown in figure 12.2.

Drug Class	Commonly used drugs	Comments
Benzodiazepines	Diazepam	Useful for very short term "emergency use" only. Danger of dependency.
Beta Blocker	Propranolol	Blocks effects of adrenaline. Useful for physical symptoms
Serotonin reuptake inhibitors (SSRIs)	E.g. Fluoxetine, Sertraline, Citalopram	Also used for depression
Serotonin-noradrenaline reuptake inhibitors	Venlafaxine, Duloxetine	Also used for depression
Calcium Channel Blocker	Pregabalin	Also used for nerve pain
Tricyclic antidepressant	Amitriptyline	Useful where sleep is a problem. Can help to prevent migraine and useful for other painful conditions.

Figure. 12.2. Pharmacological options for the management of anxiety.

- Can you just acknowledge your anxious thoughts instead of resisting them and observe them as just process is in the brain? What you resist, persists.
- Can you be more accepting of the fact that life is full of uncertainties and challenges- that's how it is.
- Can you recognise physical symptoms of anxiety, particularly muscle tension. Use the exercises we have seen in section 9 to address this.
- Is your anxiety addictive? The chemicals produced by anxiety are like those produced when you are excited.
- Can you identify where your anxiety originated from. It may have gone back to childhood. Try journaling around this.
- Can you set a specific time for worrying?
- Can you start the day with positive thoughts. Look in the mirror and say out aloud a positive affirmation such as" I am worthy of love and acceptance just the way I am."

Figure. 12.3. Some questions to ask yourself.

ii). Depression

We all feel low from time to time, but this usually is a transient feeling. Depression is a disorder characterised by low mood, interest or pleasure that persists. It can be triggered by a specific stressor or can come out of the blue without any obvious triggers. It is often experienced with anxiety and can be exacerbated by chronic physical illness. Common with painful conditions, it can reduce the pain threshold.

There are several features of depression which include low mood, lack of interest or pleasure, change in appetite, poor sleep (particularly early morning waking), poor concentration, loss of energy, low self-esteem, sense of

worthlessness or guilt, and feelings of hopelessness.

Alcohol misuse can be common. Although it can give short-term benefits soon wear off and it exacerbates underlying depression. Warning signs are:

- Instead of choosing to have a drink you feel you must have one.
- You start to drink earlier in the day.
- Work starts to suffer, and drinking affects your relationship.
- You must drink more to get the same effect.

Do you suffer from depression? PHQ9 depression test is a useful screening questionnaire which can be used for both diagnosis and following response to treatment. (See Appendix A12).

Non-pharmacological treatment:

Many approaches overlap with the treatment of anxiety. Counselling may not be as effective in depression.

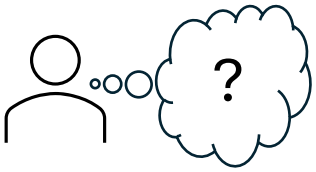
- Self-directed help (E.g. http://www.nhs.uk/Conditions/stress-anxiety-depression/Pages/low-mood-stress-anxiety.aspx)
- Cognitive behavioural therapy.
- Exercise is helpful.
- Holstic approaches. E.g. Mindfulness.

Pharmacological management

Drugs that act on the serotonin system are the mainstay of treatment and can be very effective. Some also help with anxiety. They take 3 to 4 weeks before their impact is felt and it's important when stopping not to do so abruptly. Usually, a minimum period of three months of treatment is recommended but for moderate to severe depression a minimum period of a year is often advised.

Drug class	Commonly used drugs
Serotonin reuptake inhibitors (SSRIs)	E.g. Fluoxetine, Sertraline, Citalopram
Serotonin-noradrenaline reuptake inhibitors	Venlafaxine, Duloxetine

Figure 12.3. Drugs used in the management of depression.



Want to know more about migraine and mental health?

National Migraine Centre Heads Up Podcast. Series 1, episode 4.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast.

Dresler T. European Headache Federation School of Advanced Studies (EHF-SAS). Understanding the nature of psychiatric comorbidity in migraine: a systematic review focused on interactions and treatment implications. J Headache Pain. 2019 May 9;20(1):51. doi: 10.1186/s10194-019-0988-x. PMID: 31072313; PMCID: PMC6734261.

12.2 Irritable bowel disorder and other bowel conditions

All bowel disorders are more common with migraine. For example, coeliac disease and inflammatory bowel conditions such as ulcerative colitis and Crohn's disease.

However, by far the most common is irritable bowel syndrome (IBS).

IBS is a poorly understood range of symptoms that include stomach cramps, bloating, diarrhoea and constipation for which there is no diagnostic test available. Symptoms can come and go over time and last for variable lengths of time from days to many months.

One of the reasons why IBS is more common in people with migraine is that they are more sensitive to signals coming from the body to the brain as we have seen in section 4. More information and treatment options may be found on: https://www.nhs.uk/conditions/irritable-bowel-syndrome-ibs/.

12.3 Fibromyalgia

Fibromyalgia is characterised by widespread muscle pain. It is likely that a chronic inflammatory load that we have discussed in Section 4 can exacerbate the problem by increasing the sensitivity to body signals and how the brain processes pain signals.

Drugs that are used include amitriptyline, duloxetine and pregabalin. Psychological approaches such as CBT can be helpful and the holistic approaches we have met earlier.

For more information see: https://www.nhs.uk/conditions/fibromyalgia/

12.4. Restless leg syndrome

Restless leg syndrome can cause significant distress and often goes unrecognised. The main symptom is an overwhelming urge to move the legs. It can also cause a feeling of crawling or creeping sensation in the feet, calves or thighs, usually worse at night but can occur during the day. It can be associated with involuntary jerking of the legs and often has a significant impact on sleep. Rarely, arms can be affected. The symptoms can vary from mild to severe. In severe cases, restless legs syndrome can be very distressing and impact upon quality of life.

It can run in families and although the cause is not known, the chemical transmitter dopamine is implicated. Iron deficiency can be common and should be excluded.

See https://www.nhs.uk/conditions/restless-legs-syndrome/ for more information.

12.5. Hypermobile Disorders (Loose joints)

These poorly recognised disorders are characterised by abnormalities in collagen. Collagen gives the tissues of the skin and many organs such as blood vessels their mechanical strength. The disorders range across a spectrum from minor increases in joint laxity with no other problems (20% of population), to hypermobility (significant joint laxity with poor skin support). This spectrum is known as the Ehlers – Danlos Syndrome.

Common and associated features can be:

- Chronic Migraine is the most common.
- Postural orthostatic tachycardia syndrome. (POTS syndrome.) There is a high resting heart rate which increases by 30 beats per minute within 10 minutes of standing from a lying position. There are symptoms of faintness or feelings awful when upright. This can be worse after meals, exertion, or warm environments with significant disability. Diagnosis is confirmed using ECG and a tilt table test, but a rough test can be done as follows. Lay down for ten minutes and then check heart rate. Stand up and measure heart rate for the next ten minutes every minute. An increase of 30 beats per minute may be significant. If you are unable to measure your pulse rate, use a smart watch or buy a pulse oximeter which can be purchased quite cheaply.
- Other issues include gastric and bladder problems and are related to problems in the autonomic nervous system. See

https://www.ehlers-danlos.com, https://www.potsuk.org/

- Mast cell activation is also common. (see below).

12.6. Mast cell activation

This is a chronic condition which can be related to migraine where mast cells (immune blood cells involved in allergy and inflammation) release excessive or inappropriate chemicals. This can result in:

- Raised skin wheals, flushing, asthma, rhinitis.
- Wheezing
- Chronic fatigue, brain fog.
- Musculoskeletal pain.
- Anxiety.

Antihistamine and other anti-inflammatory medications can be helpful.

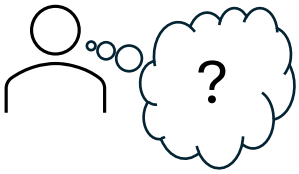
12.7. Migraine and Vertigo or dizziness (Vestibular migraine)

Vertigo is a feeling that the world is moving around you leading to unsteadiness and problems with balance. Vertigo can be part of the migraine process, both during an attack and in between attacks.

The cause is not fully understood but it can reflect an increased sensitivity to balance just as people with migraine have increased sensitivity to light and sound both during and in between attacks. Other causes of Vertigo need to be excluded, and the best treatment is prevention of the underlying migraine. When vertigo is problematic, Cinnarizine or Prochlorperazine (Buccastem) can help. Both can be bought from the chemist.

12.8. Migraine and vascular (blood vessel) disease

There is a small increased risk of vascular disease and in particular stroke in migraine with aura. The reason is unknown. The risk is higher in younger women. The overall risk is still very small, but other vascular risks such as the avoidance of oestrogen containing contraception, smoking, blood pressure, blood sugar and blood cholesterol should be addressed. The oestrogen in HRT is not a problem as it is a natural compound and in smaller dose.



Want to know more about migraine and dizziness (Vestibular migraine)?

National Migraine Centre Heads Up Podcast. Series 1, episode 9.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

Smyth D. Vestibular migraine treatment: a comprehensive practical review. Brain. 2022 Nov 21;145(11):3741-3754. doi: 10.1093/brain/awac264. PMID: 35859353; PMCID: PMC9679161.

12.8. Neurodiversity and neurodivergence

This area focusses on the way in which we experience the world and behave accordingly. i.e. how we process information from the world and act on it. As migraine is a problem with sensory processing it not surprising that it is associated with other processing problems. If you have migraine, you are more likely to have ADHD or autism.

The whole area is characterised by a number of challenges:

- Conditions are based on patterns of behaviour that are observed to cluster together. There are no simple tests, and diagnosis is based on a clinical

assessment which by its nature is subjective.

- It can be argued that the term “neurodiversity” avoids the stigma that can be attached to those who are challenged. We are all neurodiverse. Conversely it could be argued that this term minimises the challenges faced by those with significant problems and that “neurodivergent” is a better term.
- These behavioural patterns are part of a diverse spectrum – we all display neurodiverse characteristics across a spectrum. It may be arbitrary where we draw the line between normal and abnormal (neurodivergent). However, for some, there will be an impact on wellbeing and functioning.
- The area is approached in different ways by medical, psychological and social professional groups.
- NHS diagnosis can take years, so a lucrative private sector has evolved which is likely to default to a positive diagnosis. A powerful pharmaceutical sector is keen to promote drug treatment.
- We need to be mindful that behavioural patterns may be adopted by people with migraine to help prevent attacks and not because of processing problems. For example, people with migraine are often well organised, like keeping lists and can be obsessional. This could reflect the adoption of a lifestyle that is more predictable to help reduce migraine attacks.

So, what can we take from this? As migraine is associated with a brain processing problem it is likely that other processing challenges will occur. Some may be part of a recognised condition, others may not be. If there is a potential impact upon your life, discuss the next steps with your GP.

Key features of ADHD:

1. Inattention

- Difficulty sustaining attention (e.g., during tasks, conversations, reading)
- Easily distracted by external stimuli
- Trouble organizing tasks and activities
- Frequently makes careless mistakes
- Loses items (keys, school materials, phone)
- Forgets daily activities and instructions

2. Hyperactivity & Impulsivity

- Fidgeting, tapping hands/feet, restlessness
- Difficulty staying seated or still when expected
- Talks excessively or interrupts others
- Impulsive decisions (acting before thinking)
- Trouble waiting their turn
- A sense of being "driven by a motor"

Key features of autism:

1. Social Communication & Interaction

- Difficulty with typical back-and-forth conversation
- May prefer literal language; struggles with sarcasm or figurative speech
- Challenges understanding nonverbal cues (facial expressions, tone of voice, gestures)
- Differences in forming and maintaining relationships
- May prefer solitary activities or structured interactions

2. Restricted & Repetitive Behaviours

- Repetitive movements (hand-flapping, rocking, lining up objects)
- Intense or highly focused interests (sometimes unusual in topic or intensity)
- Strong need for routine and predictability; distress at changes
- Sensory sensitivities (e.g., to noise, light, textures, smells) or sensory-seeking behaviours

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Conclusion to section 12.

A wide range of other problems are associated with migraine, the reason for which is often unknown. The most common of these conditions are anxiety and depression. It is important to be aware of these associations and seek medical help where appropriate.

Section 13. Migraine and Woman's Health.

Migraine is more common in women, and the female hormone oestrogen is responsible for most of this finding. Migraine is the leading cause in the world in women of years lost with disability in the ages between 15-49. Women with migraine have a higher incidence of heavy periods, endometriosis and polycystic ovary syndrome although the cause for this relationship is not known.

Four areas are of importance. Migraine and contraception, migraine and menstruation, migraine and pregnancy, and migraine and the menopause.

13.1. Migraine and contraception

All contraceptive methods are suitable for women with migraine apart from oestrogen containing combined hormone contraception in women who have migraine with aura. This is due to the increased risk of stroke. Some specialists suggest that the combined pill can be used if aura hasn't been experienced for five years, stopping immediately if it reoccurs, but it seems unnecessary to take this small risk if other methods are available.

Headache can increase during the start of combined hormone contraception, but by three months in most this will have settled.

13.2. Migraine and menstruation

People with migraine do not respond well to changes in their internal and external environments. Menstruation is triggered by a fall in the hormone oestrogen and this rapid change can lead to problems.

Most women will find their migraines are worse around the time of menstruation, but 8% of women will get pure menstrual migraine, i.e. migraine only at this time. A headache diary can be useful for identifying this relationship as many people have not made the clear association.

In addition to the normal approaches to managing migraine, other specific strategies can be considered:

- Non-steroidal anti-inflammatory drugs (for example Ibuprofen, Naproxen, Mefenamic acid) started two days before the first anticipated day of the period and continuing until the period ends can help. Mefenamic acid 500 mg 3 times a day is probably the best option as it reduces the level of the hormone prostaglandin which may contribute to the problem.
- Short term Triptan used as a “mini-preventer.” Frovatriptan is the best option as it lasts for a long time in the body. The recommended schedule is 5mg twice daily two days before onset of menstruation, then 2.5mg for a further five days.
- Stabilisation of oestrogen using oestrogen gel or patches. Apply a 100mcg patch 2 days before the expected onset of menstruation which should be changed after 3 days. Oestrogen is released at a steady rate into the blood stream, and this will smooth out the fall in oestrogen that triggers an attack. Alternatively, gel can be used at a dose of 1.5mg a day, 3 days before the onset of menstruation for 7 days. However, often this may simply delay a subsequent migraine attack.
- Magnesium 600 mg or vitamin E 400 IU taken 2 days before until three days after menstruation.
- If you are on the combined oral contraceptive pill (not if you have migraine with aura), you can take the pill continuously to prevent the fall in oestrogen that triggers an attack. This is not a licenced method but recommended by many family planning clinics. If breakthrough bleeding or spotting occurs you simply stop the pill for four days and then restart. Progesterone only contraceptives may in some cases help, but their effect is variable.

13.3. Migraine in pregnancy

For most women, migraine is alleviated during pregnancy. Oestrogen levels rise and stay constant avoiding problematic fluctuations.

It is difficult to obtain rigorous safety data on drugs in pregnancy as no trials will ever be initiated in pregnant women. The safety of all migraine medication is used by collecting data retrospectively from women who have taken medication inadvertently during their pregnancy. When a drug is deemed safe, a useful rule of thumb is to use the lowest dose of effective medication for the shortest amount of time. If you are on migraine medication, tell your GP if you are planning a pregnancy.

For pain relief, paracetamol is safe to take but anything else should be under the direction of a physician. Most anti-sickness drugs are safe and there is considerable safety data on Triptans, particularly Sumatriptan. From the preventative perspective propranolol and amitriptyline are not known to cause problems add the supplements magnesium and coenzyme Q10 can be taken.

During the final week of pregnancy, drugs should be stopped to minimise the possibility of withdrawal effects on the newborn baby. Other options in specialist care are occipital nerve blocks and Botox injections for chronic migraine. The website: https://www.medicinesinpregnancy.org/ contains useful information in pregnancy and breast feeding.

New headaches during pregnancy should always be taken seriously and sometimes can be a cause for concern. Medical advice should always be sought. Although migraine can occur for the first time, other important conditions such as preeclampsia should be considered.

12.4. The perimenopause and menopause

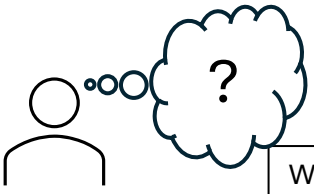
The perimenopause (around the menopause) can start between the ages of 40 and 55 when periods become irregular and are associated with other symptoms such as sweating, irritability and poor sleep. This is because declining ovarian function is unable to produce stable oestrogen levels. This fluctuation can lead to worsening and unpredictable migraine.

The menopause is defined as cessation of menstruation for a period of one year. Levels of oestrogen are low and stable and there is reduction in migraine, particularly in women who have migraine without aura. However, for a small number of women small oestrogen fluctuations, albeit at a low level, can continue to give rise to problems.

The principles of migrant management around these times are the same for migraine but additional management aims to steady oestrogen levels. The cornerstone of care is hormone replacement therapy (HRT), particularly if there are other perimenopausal symptoms. The benefits and disadvantages of HRT will be discussed by your physician.

HRT is safe in women who have migraine with aura as it replicates the body's natural oestrogen and doses are low. Topical gels or patches should be used as they maintain a stable level, unlike tablets. It is important to start on a low dose and increase slowly. Too much too soon can cause problems. A progestogen supplement should be added unless you have had a hysterectomy to avoid excessive stimulation of the lining of the womb which can lead to a higher risk of endometrial cancer that can occur with unopposed oestrogen.

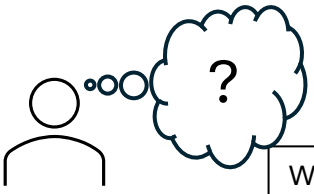
If you are unable to take HRT and hot flushes are problematic, then certain antidepressants may help both flushes and migraine. For example, Venlafaxine or Escitalopram. These drugs can also help any associated anxiety or depression. Alleviation of night sweats with HRT may also help sleep issues which can exacerbate migraine.



Want to know more about migraine and hormones?

National Migraine Centre Heads Up Podcast. Series 2, episode 1.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast



Want to know more about migraine in pregnancy and breast feeding?

National Migraine Centre Heads Up Podcast. Series 2, episode5.

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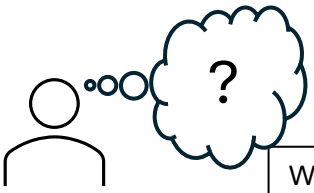

Want to know more about perimenopause and menopause migraine?

National Migraine Centre Heads Up Podcast. Series 4 , episode 7.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

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Conclusion to section 13.

Migraine is more common in women due mainly to the influence of oestrogen. This has implication for choice of contraception but can offer alternative options for the management of menstrual and peri-menopausal migraine. Migraine management during pregnancy has more limited options due to concern of the effect of drugs on the foetus.

Section 14. Migraine and children.

If you have migraine then there is a good chance that one or more of your children will also have the problem. Only 10% of children will have sought medical advice so the unmet need is significant. A third of young people will grow out of migraine, for 1/3 the impact will continue unchanged and for 1/3 things will worsen as they get older.

For this reason it's important to get an early diagnosis, understanding of the problem and an effective management plan. This section does not deal with the management of children in detail but aims to alert you to some problems in this age group.

14.1. Migraine frequency and impact

As can be seen from figure 14.1, the most common age in which migraine is first experienced is in the mid teens. Under the age of 10 migraine is more prevalent in boys but this is reversed when the impact of female hormones develop around the mid teens.

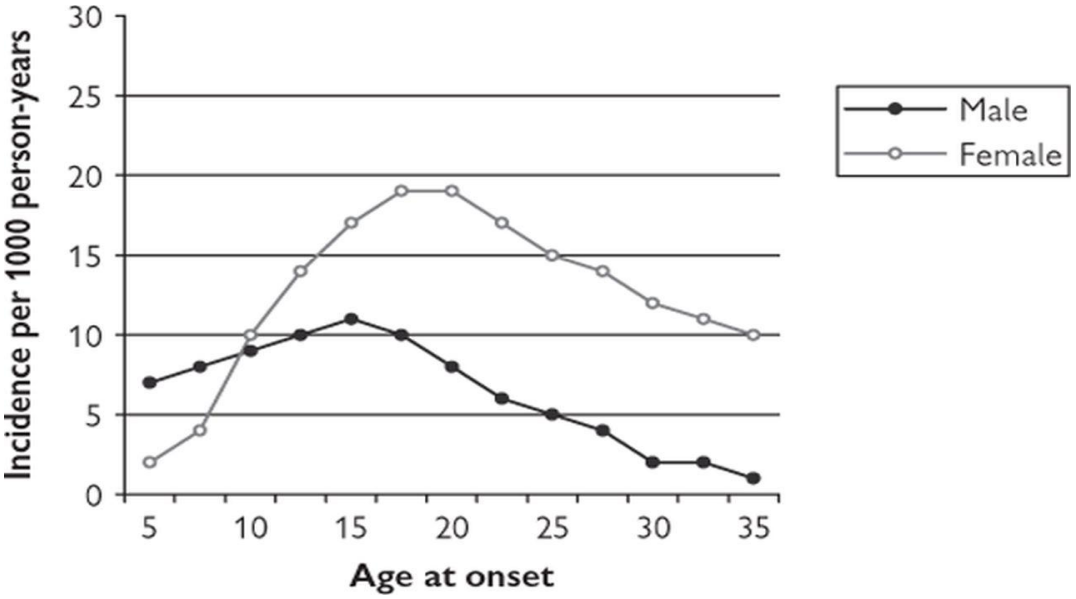


Fig 14.1. The age at which migraine starts

11% of young people have migraine although the number that have bothersome headache is much higher and includes tension headache. Many children have both migraine and tension type headache.

Migraine tends to be of shorter duration, often as little as one hour. Children can get migraine with aura which is frightening when they first experienced it. A study that we undertook recently in Exeter in children between the ages of 11 and 15 found that 1in 4 had problematic headache, their problem was not taken seriously by their teachers and as with adults remains stigmatised.

Migraine has been diagnosed as young as 18 months and here the problem is inferred by behaviour such as withdrawal or rocking quietly for no apparent reason.

14.2. Other associated problems.

Anxiety and depression are common in young people with migraine which often sits within a complex inter relationship of other challenges that affect this age group as shown in figure 14.2.

Several other associations are recognised in the absence of headache, but the reasons are not clear. Abdominal pain can occur, and it has been suggested that in some babies, colic is a

manifestation of early migraine. Other features particularly in younger children are dizziness, recurrent vomiting and spontaneous movements of the neck

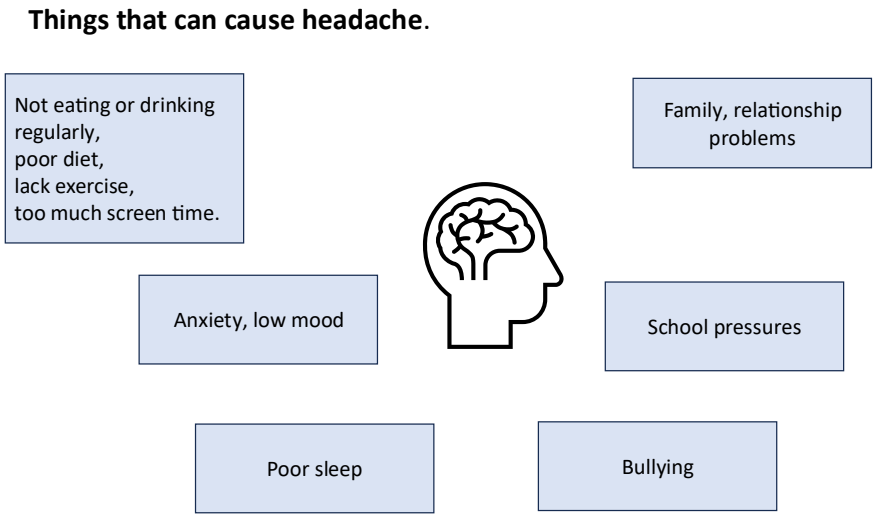


Figure 14.2. Some factors that can cause tension type headache and migraine in children.

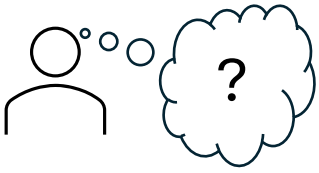
14.3. Principles of management

The principles of management in children and young people are similar to those for adults but the evidence base for the effectiveness of migraine drugs is poor. Children are more sensitive to changes in their environment and this is particularly important with skipping meals and not drinking regularly.

Medication overuse headache can occur as with adults.

Here is an extensive resource I have put together for young people with headache, their parents and schools.

https://www.tedwraggtrust.co.uk/heads-up-headache



Want to know more about migraine in children.

i). National Migraine Centre Heads Up Podcast. Series 1, episode 10.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

ii). Migraine Trust. https://migrainetrust.org/?s=children

Conclusion to section 14.

The impact of migraine on young people is significant but unfortunately their needs are poorly addressed and few seek medical help. Early diagnosis and establishing a management plan are important.

Section 15. Migraine in the workplace

Migraine has a significant impact in the workplace, not just absenteeism but reduced performance when at work. It has been estimated that migraine costs the UK economy £8 billion a year. Many people are inhibited from progression in their careers by the impact of migraine. This section describes how you can manage the impact of your migraine if it affects your place of work.

15.1. Managing migraine at work

Many people are reluctant to tell the employers about their problem for fear of stigmatisation and impact upon their career progression. However, if you feel able to do so it is important to discuss your problem with your line manager and employers are now becoming more sensitive to needs of their workers. Explain that migraine is a neurological condition and not just a headache and can be associated with several other problems which can impact your performance at work.

The employer has a legal duty to make “reasonable adjustments” to help support you. In some cases, this can be waived if changes would be detrimental to the business operation, or the change is not physically possible. Reasonable adjustments could include:

- Avoidance of shift work. Irregular sleep patterns are likely to exacerbate migraine
- Adjustments to your working space. For example, a quieter workspace, lack of fluorescent lighting, natural daylight where possible, anti-glare screens for computer monitors, reducing background noise.
- The ability to retreat to a quieter, darker area if an attack starts while waiting for your medication to start working.
- Hybrid working offers more flexibility and avoids the challenge of a commute if migraine is on the horizon.

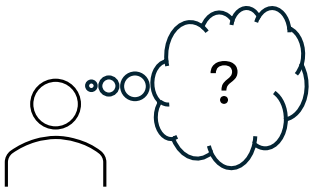
The Migraine Trust has an employment advocacy toolkit which will help you discuss your migraine with your employer. A letter from your doctor may help in managing your workplace and it's always useful to keep a written record of any contact with your employer.

15.2. Migraine and disability

Work may not be possible because of your migraine, and your doctor will need to issue a sick certificate. If you are unable to do a job over a long period of time, then a disability allowance may be appropriate.

A person is considered disabled if they have a physical or mental impairment that has a substantial and long-term negative impact on their ability to carry out daily living. This includes activities such as eating, dressing, bathing, toileting, housework and shopping. In some cases, chronic migraine will come into this category. The Migraine Trust advocacy service or your local Citizens Advice Bureau are useful resources.

https://migrainetrust.org/wp-content/uploads/2021/04/Migraine_Help-at-work-toolkit.pdf



Want to know more about migraine at work?

National Migraine Centre Heads Up Podcast. Series 3, episode 8.

https://www.nationalmigrainecentre.org.uk/understanding-migraine/heads-up-podcast

Conclusion to section 15.

Migraine has a significant impact in the workplace, but many people are reluctant to tell their employers they have migraine because of possible stigmatisation. People with migraine have statutory rights and your employer has an obligation to make reasonable adjustments to help support you. The Migraine Trust is a useful resource in this area and a source of advocacy.

Section16. Navigating the healthcare system in the UK and how to manage the GP consultation.

Against a background of rising demands on limited healthcare resources, the National Health Service continues to be under increasing pressure. What does this mean from the context of the person with migraine? It is useful to have an idea of the structure of the NHS - you will have to navigate your way through it.

This section briefly describes the organisation and its history and how headache care is organised. Finally, I offer some suggestions to facilitate a consultation with your GP about your migraine. This will be of most relevance to you, and you may want to skip straight to it.

Since devolution, Scotland Northern Ireland and Wales have evolved different NHS administrative frameworks and here, we focus on NHS England. However, the clinical pathways remain largely the same.

16.1. A brief history of the National Health Service

Where we have come from will very much determine the problems we have today. Appendix 12 gives a brief history of the NHS and some current challenges.

16.2. How headache care is delivered

The quality in the delivery of headache care across the UK is very variable and generally poor although things are slowly improving. Migraine has never achieved a high priority compared with other clinical areas such as cancer, diabetes and heart disease. This is because despite its high impact, migraine is not life threatening, it is generally episodic and diseases that cannot be objectively measured or identified have traditionally been stigmatised.

The UK health service is divided into Secondary Care (hospital-based services) and Primary Care (services delivered in the community which have traditionally been focussed on general practice, although care is now delivered in the community from many settings).

General practitioners are usually the first point of contact and should manage most people with migraine. However, the landscape in primary care is changing as few GPs are full time with implications for continuity of care. Many of their tradition roles have been taken over by other healthcare professionals such as paramedics, clinical assistants and practice nurses.

Ideally, if GPs need further help managing people with migraine, they should be able to refer to general practitioners with an extended role in headache (GPwER), working either in hospital or community settings. These GPs have a broader range of skills as well as a specific interest in headache to address the problems that can come with migraine. Unfortunately, there are only about 100 GPwERs in the UK and most referrals will be directed to neurologists.

Migraine management by neurologists in a hospital setting has historically been poor, although things are improving with more neurologists developing a special interest in headache but the number of neurologists in the UK is well below the European average.

In some areas there are specialist headache clinics where you can ask to be referred if you feel your needs have not been addressed although services vary widely across the UK.

The Migraine Trust gives a list of clinics and more information about accessing them.

https://migrainetrust.org/live-with-migraine/healthcare/migraine-clinics/

16.3. Some tips for dealing with the headache consultation with your GP

Do some background research

The Migraine Trust, the patient organisation, has a wide range of background information. https://migrainetrust.org

National guidelines for headache have been produced. They include:

National Institute for health and care Excellence (NICE) in England https://www.nice.org.uk/guidance/cg150/chapter/recommendations

and Scottish Intercollegiate National guidelines (SIGN) in Scotland. https://www.sign.ac.uk/our-guidelines/pharmacological-management-of-migraine/

Regular updates are published by The Migraine Trust https://migrainetrust.org/?s=NICE+guidelines

National guidelines tend to be interpreted into local management guidelines that GPs will follow. You may like to start by doing some homework around local management guidelines but in some areas of the UK, they may not exist.

Local formulary prescribing guidelines will indicate the drugs GPs can prescribe and what can be provided by neurologists only. Here is the guideline we use in our area. https://northeast.devonformularyguidance.nhs.uk/formulary/chapters/4-central-nervous-system/migraine

What you should expect and how can you help your GP

You should expect:

1. To be taken seriously.
Migraine has a significant impact physically, psychologically, socially and economically on not only those that have migraine but their families.

How you can help your GP. Explain briefly the impact of your problem on your day-to-day life and how it affects you.

2. To have a diagnosis.
It is not difficult to diagnose migraine. Any problematic, episodic headache which is associated with either nausea or made worse by light (or other sensitivities such as sound, movement, touch) is highly likely to be migraine. Your diagnosis should be:

i). *Migraine with or without aura*.

and

ii). *Episodic migraine* (up to 14 headache days a month) or *chronic migraine* (15 or more headache days a month of which 8 days are migraine.)

How you can help your GP. A diary can be helpful, noting the days you have headache and when they have features of migraine. A record of menstruation can identify a relationship. But don't overburden your GP with reams of data – ideally, a simple summary. There are a number of free Apps available such as "Migraine Buddy."

Chronic migraine invariably comes with other types of headaches – most commonly tension type headache and stabbing headache. This can cause diagnostic confusion. Tell your GP how many types of headaches you get and if one is migraine they are most appropriately seen as all part of one spectrum.

3. To explore triggers.
Many people can identify specific triggers. However, if they are not obvious do not spend time searching for an elusive trigger – you will never find one. More important is to keep your environment as constant as possible. For example, regular hydration, food intake, routines, sleep patterns.

How you can help your GP. Tell them that you have identified any triggers or not.

4. To exclude medication overuse headache.
This will occur if you take painkillers or anti-inflammatory medication on more than 15 days of the month. You will not be alone.

How you can help your GP. Say if you think you are taking too many painkillers.

5. To be offered treatment for the migraine attack.

Although aspirin and paracetamol can be a useful combination, you should be offered a migraine specific treatment from a family of drugs known as Triptans. Your GP should assess whether a triptan taken by mouth, nasal spray or injection is the most appropriate. If one Triptan doesn't work, you should try another as side effects or failure to respond does not necessarily mean others in the group will be similar. If Triptans do not work then you should be offered Rimegepant, one of a new class of drugs known as Gepants.

How you can help your GP. Explain what you have tried when you get a migraine.

6. For an anti-sickness medication to be considered.

Nausea and often vomiting are common in migraine. This can inhibit the effect of any other medication that is used as it will be poorly absorbed. Metoclopramide and prochlorperazine are the most common drugs used. Sometimes an injectable treatment may be advisable.

How you can help your GP. Make sure they know if you have nausea or vomiting associated with your migraine.

7. To be offered preventative medication if indicated.

There are no specific rules on when to take a regular preventive treatment and it will depend on the impact of your migraine and how you feel about taking regular medication. You should be offered a trial of up to three preventers. If these are unsuccessful you should be offered one of a recently introduced group of drugs known as CGRP antagonists.

How you can help your GP. Ensure you have taken the highest recommended dose of the initial three preventers you can tolerate without side effects for at least eight weeks before you judge effect of benefit. (N.B. Guidelines on which preventers to use can vary locally. You should be able to access your local prescribing formulary guidelines)

8. To ensure you are not planning a pregnancy.

Some drugs should be avoided or used with caution in pregnancy.

How you can help your GP. Tell them if you are currently planning a pregnancy or breastfeeding.

9. To explore other relevant problems.

Several other problems are commonly associated with migraine, particularly chronic migraine. Anxiety, depression, fibromyalgia, irritable bowel syndrome, insomnia, restless legs syndrome are the most common and problematic.

How you can help your GP. These problems cannot always be dealt with in the first consultation. Indicate that you have a problem that you understand is associated with migraine and ask if that could be dealt with at a subsequent appointment.

10. You should not expect investigation.

Blood tests are usually unhelpful in managing migraine and there is no need for brain imaging unless there is a specific indication to do so.

The probability of something serious when someone visits their GP with headache is less than 1 in 1000 and if migraine is diagnosed the chance is much smaller still. Up to 15% of scans will show incidental abnormalities which can cause considerable anxiety

How you can help your GP. Tell them if you have a particular anxiety about anything serious.

11. To be referred if things are not moving forward.

Ideally to a practitioner with an interest in headache. The Migraine Trust has a list of headache clinics.
https://migrainetrust.org/live-with-migraine/healthcare/migraine-clinics/.

12. To signpost you to migraine resources.

The patient organisation, the Migraine Trust has an extensive list of resources.
https://migrainetrust.org/live-with-migraine/healthcare/migraine-clinics/.

The national migraine centre has an excellent and comprehensive series of podcasts
https://www.nationalmigrainecentre.org.uk/

Our clinic exeterheadachecare.co.uk will be developing a range of educational and support material.

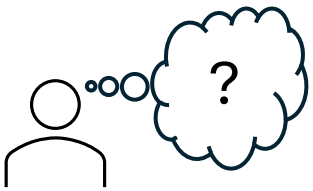
13. Why can't all GPs prescribe the new migraine drugs?

In many areas of the UK, GPs may not be able to prescribe the new migraine preventer drugs and there may be a long wait to see a neurologist for a Gepant prescription. This is primarily a cost issue although things should improve with time. I untangle this problem in session 10 of the accompanying online course.

16.4 Digital Health and artificial intelligence

New ways of delivering health care are developing rapidly. Remote consultation has many advantages and can lead to satisfactory outcomes in headache consultations although when problems are complex, there are many benefits to face to face.

Although diagnostic and treatment suggestions using artificial intelligence are impressive, there is a need to proceed with caution in this area as they can often get things wrong. The whole field is developing rapidly but it is unlikely that AI will replace medical practitioners entirely in the near future.



Want to know more about Artificial intelligence and headache?

Stubberud A, Langseth H, Nachev P, Matharu MS, Tronvik E. Artificial intelligence and headache. Cephalalgia. 2024 Aug;44(8):3331024241268290. doi: 10.1177/03331024241268290. PMID: 39099427.