

## HEADACHE AND CHRONIC PAIN

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When asked to write an article for this magazine, I wished to provide some practical information and advice for people suffering from chronic pain. I was aware that many people might overlook this article if their own particular pain was not in the head or if their headaches seemed relatively trivial in comparison to other symptoms. Even if that is the case, please read on as I will describe some of my experience in this field that may still be very relevant to those suffering from other pain disorders.

This article is not written from the textbooks. Rather, I have attempted to get across my views as to how I see patients and their symptoms and how best to get them better. My experience has been gained by years of listening to patients and exploring their many and varied symptoms. Over this time, I have come to realise that when patients bring a list of symptoms with them, they usually have only included the worst ones or the easiest to put down in words. Some of the medical profession appear to experience a feeling of heart sink when “confronted” by such a list. An inability to make sense of many symptoms and NHS constraints on time may lead to an unsuccessful consultation. If you have a list of symptoms, some vaguer than others, then it is quite likely that you will recognise yourself in parts of this review and hopefully gain some useful strategies to ease your condition.

I must apologise that this is a long article but I intend to cover a lot of ground that I think will be highly relevant to the audience of this bulletin. I do not wish to spend much time on any esoteric or very rare disorders. I intend rather to concentrate on common things that I see in my clinics and make sense of how some patients may have many different symptoms to contribute to their feeling unwell. Above all, I intend this to be of practical assistance to some of you. To make things a little easier to digest, I have split the review into various sections. These will cover the following areas:

- When should one be worried by their headaches and seek medical advice?
- Migraine:
  - What makes a headache “migrainous”?
  - Typical and common non-headache symptoms
  - Exacerbating factors
  - How to most effectively control migraine to switch it off
  - The relevance of migraine to other pain and medical disorders
  - Recognition that migraine may cause severe disability even in the relative or complete absence of actual headache
  - Drugs that help and drugs that make things worse
  - Simple and effective non-drug treatments
  - Alternative and emerging therapies
- The importance of a clear diagnosis in successful treatment
- Aids to self diagnosis of headache, head pain and facial pain
- Best treatments for other headache / head pain disorders
- The importance of recognising non-pain symptoms when treating pain – looking out for features such as fatigue, dizziness, tingling, sleep disturbance, restless legs, mood and memory disturbance.

## Headache – what types exist?

There is no doubt that some headache disorders afflict people with some of the most severe types of pain imaginable. A correct diagnosis is key if one is to control or stop pain. There are actually very few headache disorders that do not have highly effective treatments.

### *Headaches due to underlying serious disease*

When a patient with headache is seen by a doctor, the first thing that is often considered is whether the headache may be *secondary* to some underlying or worrying medical condition. Usually, if headaches have carried on for many months or years, or are infrequent, there is less concern raised and it is more likely to be a non-worrying *primary* headache disorder. It is beyond the scope of this article to provide advice as to when someone should be worried about their own headaches and my advice is to see a doctor if you have cause for concern so they can go through the features of the headache, ask questions about your health, examine you, and if necessary refer for a specialist opinion or arrange appropriate investigations.

In particular, it is advisable to consult your doctor if:

- you have a new headache that came on suddenly like a severe blow to the head
- if you have a new headache in the context of a systemic illness with fever and/or rash
- headaches appear much worse on lying flat and are relieved to some extent on standing up,
- if headaches only occur when sitting or standing but always *completely* disappear after lying down, <sup>(1)</sup>
- if standing up causes momentary *complete* blindness out of one eye *without* associated dizziness,
- if they are severely triggered and actually typically brought on by coughing, sneezing, or straining,
- if they appear very different to those previously experienced or are getting worse over time,
- if there is gradually worsening vision,
- if you are over the age of 50 years, particularly if there is severe tenderness on brushing the hair, if chewing causes increasing jaw pain and stiffness, if the muscles are very tender in the top of the arms or legs, if associated with a loss of appetite, night sweats or a feeling of being very unwell (if this is the case it is worth arranging an urgent appointment to exclude a condition called Giant Cell Arteritis; your doctor will need to do urgent blood tests to look at markers of inflammation),
- if one is already known to have other serious medical disorders such as cancer or AIDS,
- if you are experiencing other serious or progressive neurological symptoms.

<sup>(1)</sup>This is typical of low pressure headache. This may occur following a lumbar puncture or epidural procedure due to continued leakage of cerebrospinal fluid. It may also occur after a neurosurgical procedure or head injury and occasionally starts spontaneously. In the past the main treatment was to inject some of your own blood under sterile conditions into the spinal fluid (a "blood patch") but more recently this has been superseded as first line treatment by an infusion of high dose *intravenous* caffeine which is normally extremely effective. Oral caffeine is generally ineffective.

## *Tension-type headache*

The most common type of headache has always been thought to be tension-type headache (TTH). That said, there is considerable controversy about this condition. Tension-type headache is generally regarded as a “featureless” headache that is *never* severe and is not aggravated by movement. Many experts, myself included, feel there should be no migrainous features. In other words, the headache should be bilateral and usually causes aching, pressure or tightness. It does not throb or stab. There may be associated mild tenderness of the scalp or neck. There should be *no* nausea, fatigue, or dizziness. Loud noise, bright light or strong smells (e.g. perfume, aerosols, cooking smells) should not aggravate the headache in any way. The sense of smell should not be increased. Quick movements such as running up stairs should not make the headache worse.

In neurology and specialised headache clinics, many patients are referred suspected of having TTH. It is actually extremely rare that a patient turns out to actually have TTH. The vast majority of patients that are seen in neurology and specialised headache clinics are referred because (1) there is worry over diagnosis, (2) headaches are not responding well to conventional pain medications, (3) painkillers have stopped working, (4) headaches are becoming increasingly frequent or severe, or (3) there are other symptoms that cause concern. The majority of such patients actually turn out to have chronic migraine with a mix of severe and milder migraine headaches, often associated with non-headache symptoms. More often than not, these patients have at least in part become unwell as a result of taking painkillers or having caffeine in their diet. Lifestyle factors may also be important (e.g. missing meals, dehydration, irregular sleep pattern). I will discuss chronic migraine in more detail below but first would like to point out those features that raise the possibility of a rarer headache disorder that requires its own specific treatment.

## *Cluster headache*

This is a relatively rare cause of very severe one sided headache. It is so severe that women typically describe the pain as “worse than childbirth”! Most patients do not have attacks in front of their doctor, but when we do see an attack, there is no doubting the very real and excruciating nature of this disorder. Only very rarely do we see patients with cluster headache who present with little or no pain.

More patients present with episodic cluster headache than chronic cluster headache. It is the episodic patients that have bouts or “clusters” where they get recurrent headaches occurring from a few times a week to a few times a day for a period of a few weeks or months, coming out of the blue and disappearing the same way, only to return months or years later. Between these clusters there is complete freedom from this type of headache. Unlike any other headache disorder, alcohol may bring on a severe attack within an hour or so, but this will only occur whilst in an actual cluster; between clusters alcohol will not precipitate attacks.

Those with the chronic form of cluster headache get recurrent episodes on a very regular basis for a year or more at a time. Some patients who start out with episodic cluster headache later develop the chronic form of the disease and vice versa. For most cluster headache sufferers, the disorder is life long.

The condition is more common in men and almost all patients have been smokers or have had significant exposure to smoke.

Pain typically lasts 20 minutes to 4 hours and is usually so intense that it is impossible to stay still. In about 99% of patients the pain is strictly one sided. Pain is typically in the temple or forehead but may occur anywhere in the head, eye, face, or neck. If a patient describes pain that can just sometimes occur on both sides of the head, a diagnosis of cluster headache most likely to be incorrect.

Patients almost always experience a feeling of intense agitation and restlessness during the attack. Patients describe an inability to find a comfortable position. Such restless agitation is hardly ever seen with other headache / head pain disorders. Typical behaviour during an attack includes pacing the room, holding the head tightly or pushing in hard to the scalp, rocking back and forth, or head banging. There are even reports of severe self injury during attacks.

Autonomic symptoms exist due to involvement of nerves to the face that control involuntary activities such as flushing, tear formation, blood vessel dilatation, etc. The eye is often blood-shot or tearing and the nose may be blocked or running. There may be drooping or swelling of the eyelid or face, and some may experience unilateral flushing. When seen in cluster headache, these autonomic symptoms are often quite dramatic <sup>(2)</sup>. Other symptoms may be seen in cluster headache and may include nausea, vomiting, sensitivity to light (often just from the eye on the side of the attack), sensitivity to noise or smell, or visual disturbance with shimmering, blurred vision, a hole in the vision or zigzags (i.e. visual aura).

It is generally inadvisable to diagnose cluster headache in patients with headaches lasting many hours or where patients wish to lie still in the attacks, as this is more likely to be migraine. Terms such as “Cluster migraine” are confusing and are best avoided.

Patients with cluster headache will usually be recommended to have an MRI brain scan and possibly an MRI scan of the blood vessels in the head (MR angiogram) if they present with cluster headache. In patients with chronic cluster headache, the doctor may test the function of your pituitary gland with blood tests and / or further MRI scans of the pituitary, as a small number of patients with cluster headache have underlying benign tumours of the pituitary gland that secrete hormones. That said, it is relatively uncommon to find an underlying structural cause for the disorder.

Individual attacks of cluster headache may respond to high flow (15litres/minute) 100% (pure) oxygen delivered by a sealed mask *without* holes in it or a non-rebreathing mask (a mask with a bag attached to it). Drugs called Triptans (e.g. sumatriptan subcutaneous autoinjector or sumatriptan/zolmitriptan nasal spray) are extremely fast acting and helpful in most. If nasal sprays are used, the head should be tipped forward and kept in that position for a few minutes after the spray to give the drug a good chance to be absorbed by the lining tissue of the nose. This is different to the advice that comes with the medication; however if the head is tipped back the drug will go down the back of the throat and not be absorbed by the nasal lining tissue as intended.

<sup>(2)</sup> such “autonomic” symptoms may be seen with almost any headache disorder (with the exception of tension-type headache). Because migraine is far more common than cluster headache, migraine is a far more frequent cause of such autonomic symptoms.

Verpamil is not actually licensed for use in cluster headache although there is very good world-wide experience of this drug and it is generally regarded to be safe if patients are monitored very closely for any heart rhythm problems or breathlessness.

Steroids are initially typically used at a high dose of 60mg each morning and cut back by 10mg every 3-4 days (3). While the steroids are reducing, I typically start verapamil and gradually increase the dose every few days or every week so that it hopefully has some effect by the times the steroids have come down to a low dose and stopped working (4). If verapamil is used, this often needs to go to very high doses (e.g. up to 960mg) and this requires monitoring of heart rhythm with regular ECGs before each dose increase. Once on an established dose, we perform less regular ECGs. If on very high dose, we often perform a 24 hour ECG recording with a small box attached to a few sticky pads which is worn for a day. Verapamil is generally extremely well tolerated but may occasionally cause constipation or ankle swelling.

Other drugs that may act as preventatives include Lithium (needs very precise dosing and blood monitoring) and Methysergide (often very helpful but risk of fibrotic reactions around kidneys in lungs or in heart and this requires periods of freedom from the drug or close monitoring).

A newer treatment that may help a number of patients is to inject local anaesthetic and steroid locally under the skin at the back of the head around the "greater occipital" nerve (this is called a greater occipital nerve block). There is also experimental interest in the use of "nerve stimulators". These are like pacemakers for nerves, with a wire attached to neurological structures attached at the other end to a pacemaker device with a battery. The use of an implantable stimulator deep into the head into the hypothalamus has met with considerable success but there are risks to this procedure. A less invasive approach is to stimulate the nerves under the scalp at the back of the head (occipital nerve stimulator) and research is underway to see if such techniques will be as useful as preliminary reports suggest.

### *Paroxysmal Hemicrania*

This condition is rare and far less common than cluster headache. Patients with this condition experience headaches similar to cluster headache that do not generally cause such restlessness and occur more briefly (e.g. 5-20 minutes) and many times (e.g. 20-40) per day. Patients will usually be recommended to have an MRI scan of the brain/pituitary gland and blood vessels (MR angiogram) if they present with paroxysma hemicrania although it is relatively uncommon to find any underlying worrying cause for the pain. The only way to establish the diagnosis is to have a diagnostic trial of an anti-inflammatory drug called indometacin as this should abolish the pain, although doses as high as 250mg may be required and it may take up to two weeks at this dose for the drug to start working.

Individual attacks of pain may also be *prevented* by high dose steroids in the short term, in conjunction with verapamil (a drug more usually used for treating heart problems) in the long term. For those that can not tolerate the oral tablets, an alternative way of making the diagnosis is to do a test of intramuscular injection of indometacin versus placebo. Assuming the condition responds to indometacin, then we normally find the lowest dose necessary to control pain and suggest patients try and come off the drug every 4-6 months to see if they still need it. I also prescribe a drug to protect the stomach whilst on indometacin (e.g. omeprazole).

(3) As steroids may cause bone thinning and or stomach problems, I also give a month of treatment to cover this time period; a proton pump inhibitor to protect the stomach (e.g. omeprazole or lansoprazole) and drugs to protect the bones (fosamax 70mg once per week and calcichew two tablets daily)

(4) In the next cluster, steroids may not be required if we know patients can tolerate a certain dose of verapamil safely. We can then titrate the verapamil up very quickly with just one or two ECG recordings.

## *SUNCT and Trigeminal Neuralgia*

SUNCT stands for “short-lived unilateral headache with conjunctival injection and tearing”. As suggested by its name, it causes short lived episodes of pain that are much briefer and more frequent than cluster headache or paroxysmal hemicrania.

It typically occurs around the eye or forehead on just one side and is associated with a bloodshot, swollen/droopy eyelid, and/or tearing. Other variations of this disorder have been described without such eye or nasal symptoms. The attacks usually are very brief, lasting less than 2 minutes. However, they may occur as bursts of very brief severe pain superimposed on a background of less severe pain. One of the unusual features of this disorder is that it may be triggered by touching the face, cold winds, talking, chewing, or eating. It may sometimes be misdiagnosed as trigeminal neuralgia (TN), a condition which is similarly triggered.

Unlike TN (which normally causes shooting pains across the *lower* face between the nose or mouth and ears), SUNCT is much more likely to affect the *forehead, eye or temple*. Trigeminal neuralgia may also cause one eye to tear but would be unlikely to cause the eye to become bloodshot. In my opinion, one of the most useful features that differentiates TN from SUNCT is that the pain in TN may be initially be triggered but if the triggering stimulus is repeated a number of times (e.g. with brushing the teeth, eating, talking, etc) the pain gradually stops occurring and the activity can be continued in absence of pain. In SUNCT, the pain continues to be triggered as long as the triggering stimulus continues.

If SUNCT is thought to be likely, a neurological opinion or referral to a headache clinic is advised. Patients will usually be recommended to have an MRI scan of the brain, pituitary gland and blood vessels although it is relatively rare to find any underlying worrying cause for the pain. The pain is best treated with a drug that is more commonly used to treat epilepsy called Lamotrigine. There is however no link between this condition and epilepsy and it is just that this drug has often been shown to be very effective.

Trigeminal neuralgia may be treated with drugs for nerve (neuropathic) pain and the most commonly used include gabapentin, pregabalin, carbamazepine and some of the old-fashioned antidepressants. Other drugs used may include oxcarbazepine, lamotrigine and phenytoin. That said, these drugs may cause some degree of sedation or cognitive underfunctioning at the doses needed to control pain.

If they are not tolerated we may go on to scan the brain with a detailed scan that looks to see if there is a prominent blood vessel pressing on the trigeminal nerve at the base of the brain (i.e. an MRAT scan to look for “neurovascular” compression). If this is found then it may be possible to do a relatively simple and safe procedure to separate the nerve from the blood vessel and this carries a high chance of success for long term relief from pain.

## *Hemicrania Continua*

This is another relatively rare disorder that, like paroxysmal hemicrania, is often overlooked by doctors and diagnosed on the basis of its excellent and complete response to Indometacin. The name, in Latin, literally means “one sided continuous headache”. It is most often around the ear, temple and eye, associated with autonomic symptoms (bloodshot eye, tearing, drooping eyelid etc.) and jabs and jolts in the same side. Again, most specialists would recommend a brain scan in this situation but it is unlikely that any sinister cause will be found. The diagnosis is established in the same way as outlined for paroxysmal hemicrania and the treatment is identical.

## *New Daily Persistent Headache*

A recently recognised headache disorder that may be difficult to treat is one called “new daily persistent headache”. Generally speaking, it is a relatively featureless headache that literally starts out of the blue one day, may fluctuate, but never disappears. It is treated in the same way as chronic migraine (see below) but may be less responsive to treatment. In certain patients it just disappears over a number of months. In others it seems to persist despite the best efforts of a treating clinician. I investigate such headaches where appropriate, usually with detailed blood screens (including inflammatory markers, thyroid function, calcium, blood sugar, full blood count, and prolactin measurement) and MRI brain scans. That said, the vast majority of patients with this condition have normal scans and blood tests. It may occasionally come on after viral illness (e.g. Epstein-Barr virus), head injury or may be due to some other underlying problem.

## *Sinus headache or migraine?*

Sinus headache is a much overdiagnosed condition and is actually much less common than thought. The confusion arises because migraine may cause facial pain over the sinuses (e.g. above and/or below the eyes) and may be associated with dizziness, feeling hot or unwell, etc. Sinusitis should only be diagnosed in the presence of severe purulent and / or bloody nasal discharge. If there is pain above and below the eyes, especially if bilateral, it is more likely that migraine will be to blame. Migraine may cause moderate to severe facial pain, particularly around and behind one or both eyes, over the bridge of the nose or going down one side of the nose, in the teeth, or spreading down the jaw. It is not uncommon for migraine to also be associated with a slightly bloodshot eye or a runny eye or nose.

## **Acute Migraine**

I do not intend to go into much detail about acute migraine as most migraineurs will recognise severe attacks of migraine, often causing complete incapacity, where they may wish to escape from loud noise or bright light, feel tired or confused, have nausea or vomiting, and want to sleep or lie still. They may not be aware that many patients suffer so-called premonitory symptoms in the hours or days leading up to an attack (e.g. fatigue, feeling distant or spaced out, neck pain, yawning, craving foods, passing a lot of urine, diarrhoea, etc.). Only a small proportion of patients get migraine aura before or with an attack of migraine and this may manifest as distorted, blurred or missing vision, sensory disturbance that spreads around the body (usually but not always just on one side), or difficulty with speech.

Rarer still are the group of patients who have experienced really strange phenomena such as hallucinations, parts of their body not belonging to themselves or of being the wrong size, feeling split in half, feelings of time slowing down or vision zooming in or out, seeing multiple images or halos around objects, or of gradually changing in size to be much bigger or smaller than their surroundings. These bizarre experiences are termed Alice in Wonderland phenomena and they are most commonly seen in the context of migraine, especially in childhood. After the headache itself there often follows a postdrome with a feeling of fragility, scalp tenderness or fatigue.

Individual acute attacks of migraine may be treated with painkillers and antisickness drugs. Typical regimes will involve high dose soluble aspirin 900mg or paracetamol 1G and domperidone<sup>(5)</sup> (20mg orally if nausea, 30-60mg by suppository if vomiting).

<sup>(5)</sup> Domperidone is the most appropriate antisickness drug for migraine as it helps rather than hinders stomach emptying. It is common for the stomach to stop moving in migraine and this effect of the condition will be exacerbated by other antisickness drugs that close off the stomach exit (e.g. prochlorperazine, cyclizine, etc.)

If these fail to help, some patients will be prescribed triptan drugs which specifically work to turn off migraine. These need to be taken early, at the onset of a throbbing headache, if necessary using the subcutaneous injector device (Imigran 6mg)<sup>(6)</sup> or nasal spray (eg Zomig 5mg).

Triptans should never be taken during an aura, only at the onset of a throbbing headache. In addition, they are best avoided if patients have experienced attacks of aura in the past that have lasted more than an hour.

If however patients experience bits of milder headache between attacks they should be cautious taking such “acute attack medication”, as painkillers and triptans may perpetuate attacks and lead to rebound headaches and chronicity of their condition. Caffeine may also perpetuate migraines into a chronic daily headache. Alarm bells for medication or caffeine overuse ring if patients start developing minor headaches between the severe ones or if they notice that the original medications are no longer working and that they need to go to stronger painkillers. If that happens, it is advisable to follow the advice given below under the heading of chronic migraine. As a general rule, I usually suggest general avoidance of acute attack medications other than domperidone for nausea if there are typically less than 27-28 “brilliantly crystal clear” headache free days per month.

Patients with migraine and aura are often unaware that they are at significantly greater risk of stroke if they smoke. Even just an occasional cigarette will perpetuate this risk. Stopping completely is thought to bring the risk down to that of a non-smoker over about 2 years.

## Chronic Migraine

My patients are often perplexed when I diagnose chronic migraine even when they have never had what they believe to be anything other than an “ordinary headache”. Some patients have no headache at all! The diagnosis rests on a very thorough history. A common misbelief is that migraine is always associated with zig-zags or flashing lights in the vision. It is true that about 20% of migraineurs have such symptoms, but most do not!

I look for markers to suggest that patients have the right genes to make them prone to this disorder (e.g. travel sickness as a child or adult which can be provoked by travelling in the back of a car or when reading, irritable bowel symptoms with variable constipation, cramps and loose bowel motions, a family history of headaches, or a history in the past of ever having an “undeserved” hangover following only one or two drinks, often just certain types of alcohol).

There may be a history of childhood migraine that manifested as short lived episodes of abdominal pain, nausea or vomiting and a need to lie down. There is usually a history of migraine, although attacks may have been mild. A mild headache that has throbbed on going up stairs, been more on one side, or caused some intolerance of loud noise would be consistent with a mild migraine.

Patients may have overlooked other typical features of migraine and attributed these to something else. A good example of this is so-called “premenstrual syndrome” where patients may feel a number of symptoms such as being very tired, irritable, a bit low in their mood, dizzy or spaced out, experience mild neck pain, feel confused or have difficulty finding their words, or have increased need to go to pass urine or open the bowels.

<sup>(6)</sup> Although the drug information for triptan nasal sprays suggests the head should be tipped back, it is preferable to tip the head forward and keep it there for at least 3-4 minutes to allow the drug to be absorbed by the nasal lining tissue.



These features are typical of the prodrome of migraine that occurs in up to 60% of people with this disorder. Such symptoms may be followed by little or no headache. In menstruating women, migraine is often worse in the days leading up to a period. Other examples where migraine may be overlooked include morning sickness in pregnancy (often more severe or notable than any accompanying headache), mild postnatal depression (where the mood disturbance usually eclipses the less severe headache), or post menopausal symptoms (dizziness and flushing).

People typically develop chronic migraine if they have the genes that predispose them to migraine. There may or may not be obvious precipitants. Things that may precipitate development of chronic migraine include hormonal changes (e.g. change of oral contraceptive, following pregnancy, development of menopause), head injury, viral illness, etc. That said, a clear precipitant is often not apparent. Chronic migraine typically develops over weeks or months. Headaches become increasingly frequent, the gaps between them no longer feel crystal clear but fill with milder less specific headaches and painkillers or other acute attack medications lose their ability to effectively relieve the headache.

When patients develop chronic migraine, they may have only *occasional* severe headaches but the clue to this diagnosis is that (by definition) less than 15 days of the month are *completely* headache-free (i.e. “brilliantly crystal clear”).

Some patients may have a syndrome highly suggestive of chronic migraine even if they have no more than the mildest pressure at the back of the head or neck and some even have chronic *acephalgic* migraine where there is actually no headache at all! When they do occur, the severe headaches have typical “migrainous” features. The headache will often throb or bang or may be associated with a feeling of severe pressure. Occasionally it may be described as burning, pulling or twisting. The pain may be on one or both sides of the head and may swap sides during the attack.

Pain is most frequently experienced in the temple or behind an eye but may occur anywhere in the head, neck or face. The headache is typically worsened by head movement or physical activity and the scalp may feel tender to touch. Sensitivity to various sensory stimuli occurs with intolerance of noise, light or smell. There may be loss of appetite, nausea or vomiting. It is common to want to lie down or stay still in the attack and this may go on for anywhere up to days at a time.

In between, the milder headaches often feel tight or pressure-like but still have a tendency to increase or throb with physical activity movement. There may be mild nausea or subtle sensitivity to repetitive noise or very bright light. Some people experience a third type of headache with chronic migraine. This is a sudden and very brief stabbing pain that often makes one stop or wince. It can be triggered by things such as certain smells.

When patients develop chronic migraine, they usually develop many symptoms other than headache. Many of these can be quite subtle. However, some of these associated symptoms may actually be the major reason for seeking medical advice. There are some patients with severe chronic migraine who present with these additional symptoms without actually being aware of any significant headache.

Typical associated non-headache features of chronic migraine are extremely common and present in the majority of patients with chronic migraine. These are outlined in Figure 1. Of particular note:

- Fatigue is often misdiagnosed as chronic fatigue syndrome or “ME”
- “Coathanger” neck ache is very frequent that often radiates across the shoulders (maybe misdiagnosed as cervical spondylosis), with tenderness, stiffness and discomfort
- Painful and tender areas may be otherwise diagnosed as fibromyalgia
- A sense of water running or insects crawling on the scalp, face, or limbs is seen quite commonly and is known as “formication”
- “Restless legs” symptoms are common. They cause a feeling of need to move the legs and / or arms, often creating an unpleasant sensation if still. Patients may wake with aching legs and/or arms and feel very tired in the day. These symptoms are often associated with jerky movements during sleep (periodic limb movements of sleep); these jerky movements may also occur when awake. It is often worth treating these symptoms in their own right.
- Dizziness or a sense of imbalance is extremely common: this most commonly manifests as “migraine-related dizziness” with a feeling of being light headed and spaced out and may be more likely in bright, hot, crowded or noisy places. Some people may feel panicky when this first starts but panic often disappears relatively early in the condition in most subjects. During this dizziness there may be a sense of unreality of self or surroundings and there may be accompanying blurred, spotty or dark vision and/or buzzy or reduced hearing. Some people experience true vertigo with a sensation of surroundings moving and this usually occurs during headache. There may be “visual vertigo” whereby surrounding visual stimuli create a sense of imbalance or dizziness. Visual vertigo may be provoked by various stimuli including stripes, patterns or carpets, escalators or stairs, supermarket aisles, rotating ceiling fans, flickering televisions, road markings etc. Finally people may just go off balance when walking so that they veer to one side
- Poor short term memory and concentration difficulties are often associated with word finding or naming difficulties, as well as coming out with the wrong words.

### *Differentiating manifestations of chronic migraine from other conditions*

It is of interest that these additional symptoms, when seen in the context of chronic migraine, usually completely disappear on the “brilliantly crystal clear” non-headache days. This differentiates them from being due to other conditions. For example, someone with low mood as a result of depression, chronic fatigue as a result of “M.E.”, pain from fibromyalgia or osteoarthritis of the spine would *not* be expected to be back to normal just for these non-headache days. This is extremely important to recognise, as appropriate treatment of chronic migraine may provide considerable benefit for these troublesome non-headache symptoms. Recognition of chronic migraine is therefore extremely relevant to persons otherwise diagnosed with ME, chronic fatigue syndrome, fibromyalgia, cervical spondylosis, restless legs syndrome, depression, chronic panic disorder etc. (Table 1) It is of interest that psychiatrists who ruin treatment-resistant depression clinics may now stop caffeine as first line treatment and I understand that a significant proportion of such patients start only then to respond to their antidepressant drugs.

## *Treatment of chronic migraine*

Whilst chronic migraine may be due to an inherited predisposition to migraine and initially triggered by a known or unknown mechanism, it is usually the use of painkillers and caffeine that escalate the condition into a severe state and result in poor response to treatment. Some nasal decongestants can act similarly to perpetuate the condition. The difficulty arises as people often see no other way to control their problem.

All acute attack medications may perpetuate the disorder and may result in poor response to preventative drugs. Acute attack medications include simple analgesics (e.g. paracetamol), non-steroidal anti-inflammatory drugs (e.g. ibuprofen, aspirin, voltarol, etc.), opioids and similar drugs (e.g. solpadeine, tramadol, codydramol), and triptans (e.g. sumatriptan, naratriptan, rizatriptan, etc.) In addition, caffeine works as an acute attack medication and is found in coffee, tea, cola, chocolate, Dr Pepper, Lucozade, Red Bull, Irn Bru, and certain alcopops such as WKD.

If I see a patient with chronic migraine I recommend an abrupt and maintained withdrawal of *all* acute attack medications and caffeine and warn that there are likely to be headaches over the next one to two weeks and that these may be very severe. In fact, the appearance of severe headaches usually indicates that the rest of the treatment plan is likely to be extremely effective. During this detoxification period and subsequent to this, I advise drinking plenty of fluids, not missing meals, and ensuring the same time where possible to go to bed and get up (e.g. avoidance of late nights and lie ins). If patients are taking large doses of opioid drugs then they may benefit from being given a 5 day course of clonidine during this withdrawal period, to prevent withdrawal effects. During periods of severe headache I prescribe a drug for nausea where required (e.g. domperidone orally for nausea or rectally if actual vomiting occurs). To help get through a headache without painkillers or triptans, some people benefit from drinking plenty of fluids, using soothing balms (e.g. 4head, tiger balm etc), some advocate cold or heat packs and others get great benefit from scalp, face or neck massage.

Typically the detoxification period will be followed by less common severe headaches or increased headache-free gaps and some improvement in the associated non-headache symptoms. This is not always the case. If headaches are still problematic, a preventative drug can be started at this stage. Drugs used to prevent migraine have often been used previously to treat other conditions and one should not be put off by the label of “anti-epilepsy” or “antidepressant”. The commonest drugs include beta blockers (e.g. propranolol or atenolol), the tricyclic antidepressants (e.g. amitriptyline, dosulepin) or the anticonvulsants (e.g. sodium valproate, topiramate). Older drugs such as pizotifen are poorly tolerated and drugs such as carbamazepine or clonidine are generally ineffective.

It is important to realise that preventative drugs need to start at low doses and be increased very slowly over weeks or months until the headache goes or the maximum recommended or tolerated dose is reached. They need to be maintained at such dose for at least 4 months before deciding on whether or not they have been effective, given that they may take some months before they start to work. It is important that they do not cause any significant sedation or slowing of thought processes if they are to work. If they are effective it is worthwhile continuing treatment for a period of 6 to 12 months before slowly discontinuing. Occasionally drugs fail to turn the migraine off and then combinations of these may be tried. During this time there may be certain emergency situations where acute treatment of migraine or other pain is required but ideally such medications should be taken less than once per month if they are to allow the migraine to be switched off.

## *Chronic migraine and sleep*

For some patients, migraine remains relatively resistant to treatment. If this is the case, it is important to exclude and treat any disorder that interferes with sleep. For example, if you get restless legs and feel tired in the day or are known to move and twitch a lot in your sleep, it may be worth having your iron levels checked and treated if low or borderline and having a drug such as Sinemet, Pramipexole or Adartrel before bed. If you are known to snore heavily and / or stop breathing in sleep then it is worth being referred to hospital for a sleep study to exclude the condition obstructive sleep apnoea (which can be successfully treated by weight loss and assisted breathing with a special breathing mask device called CPAP. Finally, it is often worth checking the central heating and having a gas inspection if more than one member of a household experiences regular headaches.

## *Chronic migraine and other pain conditions*

Patients often mention that they can not stop painkillers because they need them for another condition. There is now good evidence that taking painkillers for back or neck pain is counterproductive if chronic migraine is present. Even if the main pain is in the spine, this pain may considerably improve on treating the chronic migraine by stopping all painkillers and starting migraine preventative drugs as described above. Sometimes if there is still considerable spine pain despite this approach other treatments can be considered (e.g. extensor back stretch exercises / physiotherapy, Pilates exercises, regular swimming, pain blocks from a pain team, etc.). If patients have arthritis as well as migraine, it may be possible to use regular glucosamine and chondroitin (available over the counter or on prescription) in place of painkillers or anti-inflammatory drugs. This takes about a month to start working but can often be very helpful. Other pain conditions may be helped by other pain management techniques, including local nerve blocks, acupuncture, pain management programmes, etc.

I hope this article has been of some help or interest. If you wish for a patient information sheet on chronic migraine, new daily persistent headache or cluster headache, these are available from the outpatient department or my secretary at The Walton Centre for Neurology and Neurosurgery. Further information is also available from the following headache organisations:

OUCH UK (Organisation for the Understanding of Cluster Headache) <http://www.ouchuk.org>

The Migraine Trust

<http://www.migrainetrust.org>

BASH (British Association for the Study of Headache

<http://www.bash.org.uk>

**If you require this information in other formats or languages, please speak to a member of staff for details**

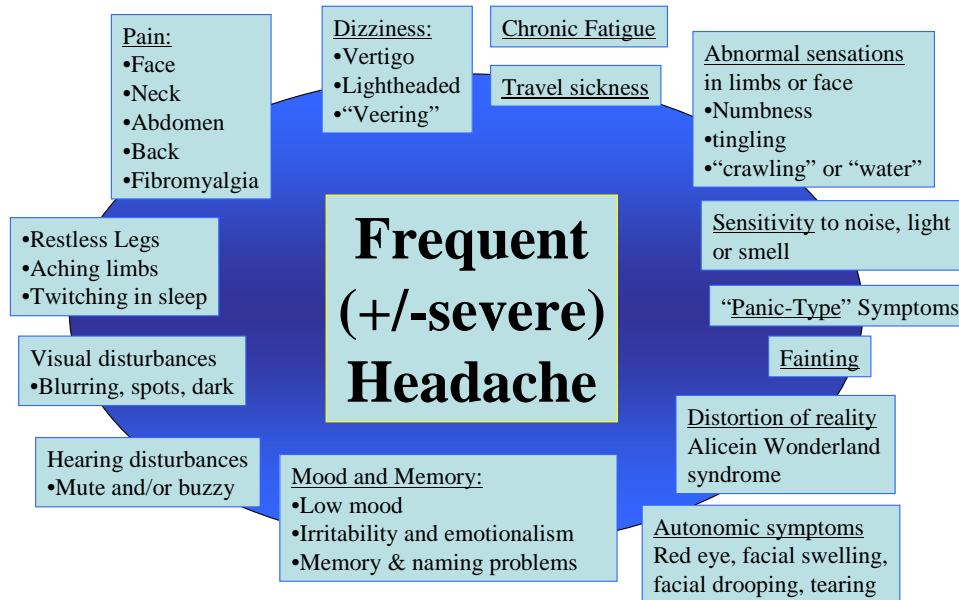
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Figure 1

## Chronic Migraine – “more than just a headache”



**Table 1: common misdiagnosis of chronic migraine**

| Diagnosis  | Comment  |
|--|--|
| <b>Cervicogenic headache</b>                     | Neck pain very rarely causes headache  |
| <b>Chronic tension-type headache</b>             | Over diagnosed +++++   |
| <b>Eye strain</b>                                | Should only cause headache when reading or straining   |
| <b>Dental Headaches</b>                          | Healthy teeth may be extracted if pain appears in teeth  |
| <b>Temperomandibular joint (TMJ) dysfunction</b> | Probably over diagnosed  |
| <b>Atypical facial pain</b>                      | Migraine commonly causes pain down lower jaw, over bridge of nose or cheek or in teeth – may be overlooked as possible diagnosis (always consider if pain can even rarely affect other side)                 |
| <b>Sinus headache</b>                            | > 95% of diagnoses may be incorrect; only diagnose if blood, nasal discharge +/- fever. Migraine more likely if pain over more than one site in face.  |
| <b>Hypertensive headache</b>                     | Headaches commonly increase blood pressure. Treatment of headache will often allow blood pressure to settle. Blood pressure probably only causes headache if extremely severe (e.g. eclampsia in pregnancy). |