

Reducing the impact of troublesome headache

The objective of these notes is to:

- Explain the likely diagnosis of troublesome headache.
- Outline its causes and mechanism.
- Describe some useful medications that can be taken without a prescription.
- Suggest some ways in which a consultation with a GP can be facilitated.

What is the likely diagnosis?

95% of troublesome headache falls into two patterns. Firstly, a dull pain which is usually at the back or around the head without any features - this is known as *tension type headache*. Secondly, a more severe pain with associated features that may include nausea or sickness together with an increased sensitivity to light sound or movement - this is *migraine*. Migraine does not have to be associated with an aura or be on one side only. Only 30% of migraineurs have an aura and in 30% of attacks the pain is on both sides. There is likely to be a family history of troublesome headache but in 20% of migraineurs this will not be the case.

Often features of both tension-type and migraine headache are experienced and many headache experts now view both these headaches as part of the migraine spectrum. The picture may be complicated by using too many painkillers which can itself cause additional headache (see below).

A small number of headaches can arise from a wide range of other causes. If you have any concerns, you need to see your general practitioner. Some features that may alert you to seek further help would be headache that is progressively worsening, significant change in headache pattern, headache that is associated with other physical

symptoms such as weakness or memory loss, headache precipitated by exercise, cough or straining.

Tension type headache

The pain is dull, like a band around the head and there are no associated features. Tension-type headache is poorly understood but invariably there is a clear relationship with stress alleviation of which usually manages the problem. Amitriptyline can be helpful, but this can only be obtained on prescription. However, if there is a family history of migraine or if you have ever had a migraine type headache, this is more likely to be a migraineous headache. In practice I very rarely diagnose a tension-type headache as a cause of a troublesome problem.

Migraine

Migraine is often associated with nausea or vomiting. Other features can be noise, light or movement sensitivity. In 30% of people there is an aura which typically lasts between 30 to 60 minutes before the headache and usually manifests as a visual disturbance although other aura features are possible such as pins and needles or speech problems.

If you have migraine, you are not alone - migraine affects 15% of females and 8% of males. 10% of children suffer with migraine. It is sixth in the World Health Organisation's health problems in adults in terms of disability burden (number one in those under 25 years), and can have implications for family, social and leisure activities.

It is important not to confuse migraine with cluster headache. Here the pain is much shorter, lasting less than two hours and always around the eye. The sufferer is agitated wanting to pace around rather than lying quietly as with migraine.

What causes migraine?

A "migraine engine or generator" has been identified at the base of the brain and this is where the migraine process starts. You have a greater chance of having migraine if a family member also has it. This migraine generator is close to the part of the brain that controls the stomach and also the nerves of the shoulder and neck. Many people

with migraine experience pain in the neck and shoulders during or between attacks. Often this is the migraine generator firing often without causing a migraine attack but triggering the nerves supplying the neck and shoulders which is a manifestation of "low intensity migraine".

What causes the migraine generator to be activated?

Triggers and things that change

- Specific triggers can activate the migraine centre. You may recognise some of these. Red wine, cheese and chocolate are the most common but there are several other triggers that may be individual to you. Caffeine is an important trigger of migraine and caffeine containing drinks such as Coco-Cola, tea and coffee should be kept to a minimum. If this is not obvious, don't waste time looking for the elusive trigger.
- Most people don't recognise the fact that changes in environment both within the body and externally can also trigger migraine. For example, many migraineurs suffer from "weekend migraine" where the stress of the working week suddenly declines. Other important fluctuations include levels of hydration, food intake, sleep patterns and activity levels. It is important to keep all these changes as constant as possible within the constraints of normal everyday life. In particular, ensure regular drinks through the day, regular spaced mealtimes and if possible, regular sleep and rising times. Some females may notice migraines around the time of their menstrual periods when hormone levels are changing. Migraineurs can also be sensitive to changes in weather conditions.

What happens during a migraine attack?

Three phases of the migraine attack are recognised but all three don't occur in everyone.

1. The prodrome

Some people describe what is known as a "prodrome" up to 24 hours before the attack. This is an abnormal feeling or sensation such as

agitation, food craving, yawning, heightened sensitivity, etc. Other people may notice this change in you. If you have a prodrome it is important to recognise it as the sooner you can treat the impending migraine the more effective the treatment will be.

2. *The aura*

Up to a third of migraine sufferers have an aura. Most commonly, this precedes the headache and lasts between 30-60 minutes. Most commonly the aura is visual - jagged patterns, central blindness or flashing lights. However, an aura can take several forms that include pins and needles, muscle weakness, difficulty in speech. Sometimes an aura can occur without being followed by the headache or more rarely, during the headache phase.

3. *The headache*

The headache phase usually lasts between 4-72 hours. It can be anywhere in the head on one or both sides. Sometimes the pain can be felt in the face and many people who have been diagnosed with chronic sinusitis actually have migraine.

4. *Associated features.* As the nausea centre in the brain is next to the migraine generator, nausea and vomiting are common and can be problematic. It also means that medication taken by mouth will not be absorbed as effectively once the migraine process has started. This has important implications for treatment. Increased sensitivity to light, sound, movement and touch are common. There can be balance and cognitive problems.

What treatments are available without seeing a doctor?

Treatments fall into two categories - treating the attack and preventing the attack.

i) Treating the attack - putting the brakes on the migraine generator once it has started

The sooner the migraine attack is treated the better it will be. This is for two reasons.

- The more momentum the migraine builds up the more difficult it is to stop.
- Due to activation of the nausea and vomiting centre in the brain, there will be a reduction of absorption of medication into the blood stream.

Paracetamol, aspirin and buccastem - a useful first step

The information sheet below shows a very useful combination that can be bought from the pharmacist. Soluble preparations work quicker and there is a suggestion that absorption is enhanced if taken with a fizzy drink. The buccastem is an anti-sickness tablet that will also help the absorption of the paracetamol and aspirin

Information Sheet for Patients using
Soluble Aspirin/Paracetamol/Buccastem for migraine Attacks

How do these tablets work?

These tablets act in different ways to counter two main problems of migraine.

- *Soluble paracetamol* is a useful pain-killer which alleviates the pain component of migraine.
- *Soluble aspirin* is an anti-inflammatory which reduces the inflammation component of migraine.
- *Buccastem* is an anti-sickness medication that reduces nausea and facilitates the absorption of the aspirin and paracetamol.

Can I take all these tablets together?

The tablets are meant to be taken together. They act in different ways and complement each other.

How should I take them?

Paracetamol 3 x 500mg tablets (1500mg), soluble Aspirin 3 x 300mg tablets (900mg), Buccastem 1 X 3mg

Although these dosages are slightly higher than normally recommended, it is important to get the blood levels of these tablets up to adequate levels quickly.

Do these tablets have any side effects?

All tablets have a number of listed side effects that you will find in the medication packets. However, side effects are rare.

Do these tablets interfere with any other medication I might take during an attack?

These tablets don't interfere with other migraine medication which can be taken in addition if needed. If you are on medication prescribed by your doctor check with the pharmacist.

Can I take this combination again?

The tablets can be taken again after four hours but in lower doses. The maximum dose of these medications in 24 hours should be Paracetamol 8 x 500mg tablets (4 grams total), soluble aspirin 8 X 300mg tablets (2400mg total), Buccastem 3X 3mg tablets.

N.B. This leaflet is intended to provide a brief overview of aspects of this treatment protocol. It is 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.

Triptans - the main- stay of acute migraine treatment.

If this combination doesn't work for you or is only partially successful, then you should consider a medication known as a Triptan. The family of drugs known as Triptans have revolutionised the treatment of migraine. One of this family known as Sumatriptan is now available to be purchased directly from the pharmacist. The dose is 50mg but if this is ineffective two tablets (100mg) can be taken. The pharmacist will make sure there

are no reasons why you shouldn't take this medication - the main one being a history of heart of disease or stroke.

If the Paracetamol/Ibuprofen combination in Figure 1 is only partially successful, then you can still take the Triptan. In many cases people with migraine are unsure whether their headache is going to develop into a migraine and it may be useful to take the combination medication first if you are unsure.

The above medications can be purchased over-the-counter. However, if sumatriptan doesn't work or has problematic side effects there are a number of other medications in the Triptan family which your GP can prescribe. If nausea or vomiting is a significant problem, then Triptan's are available via a nasal spray or a self administered injection both of which bypass the stomach. Formulations of Triptans that melt in the mouth are for convenience only and do not avoid problems with stomach absorption.

ii) Preventing the attack

When attacks are quite frequent or problematic then preventative medication aims to stop the migraine centre from firing. A number of medications can be purchased from health food shops that can be effective in the prevention of migraine although the evidence base is not as extensive as prescribed medications. You will need to check with your pharmacist if you are on any other medication for potential drug interactions. The most commonly used preventers that are available without a prescription are:

- Riboflavin (Vitamin B2) - 400mg a day
- Magnesium – 600 mg a day in divided doses.
- Co-enzyme Q10 - 50mg 3 times a day

Co-enzyme Q10 has the best evidence base and the fewest side effects but may be expensive at this dosage. All medications should be taken for at least eight weeks before a benefit is judged.

More information can be found on the Exeter headache clinic website (patient information sheets.)

Beware of headache due to taking too much pain killing medication

All pain killers taken for headache can exacerbate the problem if taken on 15 or more days of the month. This is known as medication overuse headache and is quite a common problem. It will also occur if you take Triptans on more than 10 days of the month. It is the frequency that is important and not the number of tablets. The difficulties of stopping regular medication are well recognised and you may need the support of your GP to do this. The first important step is to recognise this as a problem.

Migraine often doesn't come alone

Other recurrent painful conditions such as fibromyalgia and irritable bowel syndrome are more common with migraine. Of particular importance is an association with anxiety and depression, possibly as these have similar biochemical mechanisms to those of migraine.

It is important to address any anxiety and depression as these can make migraine worse which in turn can exacerbate the anxiety and depression. Some things you can do:

- You can refer yourself to the NHS depression and anxiety psychological service <https://www.dpt.nhs.uk/our-services/depression-and-anxiety-das>
- Your GP can consider medical treatment which although sometimes receives a bad press can be very effective.
- Mindfulness is a useful approach which can deal with unhelpful thought processes.
- Emotional freedom technique can be useful for alleviating unhelpful emotions.

More information on the latter two approaches can be found on the Exeter headache clinic website (patient information sheets.) It has to be said that there is no scientific evidence to support their use, but

they don't cost anything, have no side effects and help a number of people!

Speaking to your GP about your migraine

If the above measures haven't helped you then your GP is the next step. Migraine can be difficult to diagnose and manage within the constraints of a ten- minute consultation. Some things that are important to tell your GP are:

- That you think you have migraine – evidence suggests that you are usually correct.
- The impact of your migraine – evidence suggests that if you can explain to your doctor the impact of the problem your treatment will be more appropriate.
- What medication you have tried.
- A headache diary is also important. It can help your GP to understand the frequency of your headaches and possibly identify any triggers. You can download one from the headache clinic website.
- Your contraceptive needs or plans for having a family as these factors may determine management.

You should expect your GP to discuss prescribing a Triptan with an anti-sickness medication and the possible need for preventive medication.

A letter is attached at the end of this document you may find useful to give to your GP to help in a consultation.

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What can I do at work?

It is important that your working environment is correct for you and that your employer understands your problem. The migraine trust has useful information to support the workplace and advocacy service.

<https://www.migrainetrust.org/living-with-migraine/asking-for-support/help-at-work/>

Sources of further information

Migraine Trust is the patient's organisation with useful advice - www.migrainetrust.org

The Exeter headache clinic contains guidelines and patient information sheets - <http://www.exeterheadacheclinic.org.uk>

The British Association of the study of headache contains pragmatic guidelines for practitioners – BASH.org.uk

Other things to think about

A healthy lifestyle is an important part of migraine management.



Diet

- Eat a cereal/oat based breakfast to give a slow release of sugar.
- Do not go for long periods without food – to avoid low blood sugar levels.
- Limit intake of caffeine – tea, coffee, fizzy drinks including cola.
- Eat balanced meals including five portions of fruit and vegetables a day.

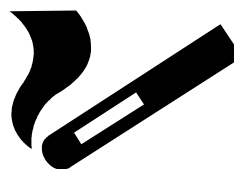


Alcohol

Keep alcohol intake to recommended weekly levels:

- Men 21 units
- Women 14 units

One unit = half pint of beer, one glass of wine / spirits



Smoking

- Use your local NHS Smoking Advice Service to help you stop.
- Most pharmacists can advise and supply appropriate treatment.



Water

- It is recommended that we drink two litres (eight large glasses) of water a day.
- Coffee, tea, alcohol and related products can cause headaches.
- Coffee, tea and alcohol are diuretics and therefore cause more water loss from your body.
- Keep drinking throughout the day.



Sleep

- Try to maintain a regular time of going to bed.
- Ensure you have a period of wind down before going to bed.
- Avoid working at a computer close to bedtime.
- Think about your routine just before you go to bed.
- Try to have the same amount of sleep – do not under or over sleep.



Posture and eyesight

- Avoid slouching in front of the TV.
- Check your position in front of the computer. The VDU should be at eye level.
- If you have problems with your eyesight see an optician for a check up.
- If you already have a visual condition make sure you have regular check ups.
- Check your driving position.



Exercise

- It is recommended that we try and exercise five times a week for thirty minutes.
- Walking is an ideal and cheap way of exercising.
- Think what you like doing and how you may build it into your life.



Stress/relaxation

- Avoid negative ways of coping (such as alcohol, smoking).
- Prioritise problems/tasks, recognise signs of stress.
- Try and include exercise in your routine to aid relaxation.
- Make sure you include time in your life for you!

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Dear Colleague

We are undertaking a programme to reduce the burden of migraine in the workplace.

Your patient has a high probability of migraine using a simple questionnaire that has a high sensitivity and specificity.¹

They have been given some basic information about migraine and the option of keeping a headache diary to facilitate the consultation.

At the reverse of this letter is a simple management protocol that you may find useful. Further information and patient drug information sheets that can be downloaded can be found on our website.

I hope you find this information useful.

With best wishes

Dr David Kernick.

¹ ID Migraine. Two out of three questions positive have a high sensitivity and specificity for migraine.

- Has headache limited your activities for a day or more in the last 3 months?
- Are you nauseated or sick to your stomach when you have a headache?
- Does light bother you when you have a headache?

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Notes to GP to facilitate a Migraine Consultation

Exclude co-existent medication overuse headache. This can occur when taking analgesics on 15 days of the month or more or Triptans on 10 days.

Exclude red flags. These include a significant change in headache pattern, symptoms of raised intracranial pressure, abnormal neurological symptoms or signs, first migraine attack occurring 50 years of age and above.

Managing the acute attack.

- A prokinetic (metoclopramide) Soluble Paracetamol/Soluble aspirin is a useful combination at the earliest option.
- Triptans are the mainstay of treatment. Lack of response is not a class effect. Rotate Triptans if one is unsuccessful. Sumatriptan/Zolmatriptan nasal spray is useful if severe nausea or vomiting is a problem. Injectable Imigran is the gold standard and useful for severe vomiting or intractable migraine.
NB - wafer formulations are for convenience and do not get absorbed in the mouth.
- Due to gastric stasis the sooner the migraine is treated the more effective medication will be. Triptans may not work well if taken during an aura phase.

Preventative medication

- No specific rules on when to start but go on the impact of migraine on the patient. Information sheets available on the clinic website.
- Beta blockers are the drug of first choice. Propranolol has the largest evidence base.(80mg -160MR) Atenolol is effective and convenient. If side effects are problematic, Nebivolol can be useful.
- Amitriptyline is the second choice. Particularly useful if there is associated anxiety or sleeping problems.
- Topiramate is third choice.
- Pizotifen is useful in children but rarely effective in adults where weight gain can be problematic. Other options are Sodium Valproate (males) or Candesartan.

Titrate preventative drugs to maximum licensed dose that is free of side effects. Use for at least eight weeks before judging an effect.

Further resources

Guidelines can be found at:

- British Association for the Study of Headache (BASH) guidelines - www.bash.org.uk
- Scottish Intercollegiate Guideline Network - www.sign.ac.uk >guidelines

- Exeter NHS headache clinic - [Exeter headacheclinic.org.uk](http://Exeter-headacheclinic.org.uk)

Patient organisation support groups:

Migraine Action - www.migraine.org.uk

Migraine Trust - www.migrainetrust.org