

Reducing the impact of migraine in the workplace

Exeter NHS Headache Clinic, St Thomas Health Centre, Exeter.

The objective of this leaflet is to:

- Confirm a likely diagnosis of migraine.
- Outline the causes and mechanism of migraine.
- Describe some useful medications that can be taken without a prescription.
- Suggest some ways in which a consultation with a GP can be facilitated.
- Outline the importance of lifestyle changes.

Do I have migraine?

Migraine is an intermittent troublesome headache that has features other than just pain. If the answer to the questions below are positive there is a high chance you have migraine, particularly if you have a family history of troublesome headache.

- Has headache limited your activities for a day or more in the last 3 months?

AND

- Are you nauseated or sick to your stomach when you have a headache?

OR

- Does light bother you more when you have a headache?

Other features of migraine can be noise or movement sensitivity. In 30% of people there is an aura which typically lasts between 30 to 60 minutes and usually manifests as a visual disturbance although other aura features are possible.

If you have headache without any of the additional features it is unlikely to be migraine - a tension type headache is the most likely.

You are not alone

Migraine affects 15% of females and 8% of males. 10% of children suffer with migraine. It is in the World Health Organisation's top 5 health problems in terms of impact of disability and can impact on other family members and friends and has implications for family, social and leisure activities.

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. This has implications which are outlined below.

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 a number of 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.
- 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.

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 a number of 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. 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

A number of migraine sufferers experience pain in the neck and shoulders. In many cases this is the migraine generator firing often without causing a migraine attack but triggering the nerves supplying the neck and shoulders. Often this neck and shoulder pain is in fact "low intensity migraine".

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 and aspirin with an anti-sickness medication - a useful first step

Figure 1 shows a very useful combination of paracetamol and aspirin that can be bought from the pharmacist. As migraine affects the stomach it's important to take an anti-sickness medication which will also help tablets overcome the problem of "gastric hold-up." This prevents any painkillers moving on and being absorbed in the intestine. A drug called Buccastem is now available from the chemist which is absorbed through the lining of the mouth. It is a low dose so you need to take two tablets. Soluble preparations work quicker and there is a suggestion that absorption is enhanced if taken with a fizzy drink.

**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 three 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 reduces sickness and helps absorption of the above tablets.*

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 X 2 (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) and buccastem 4 X 3mg tablets (12mg total).

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. 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/Asprin/Buccastem combination in Figure 1 is only partially successful then you can still take the Triptan. In many cases migraine sufferers 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. Alternatively you can take all three together without any problem

The above medications can be purchased over-the-counter. However there are two other points worth considering:

- An anti-sickness medication is always worth considering particularly if there is any suggestion of nausea. This implies that any medication taken by mouth will not be well absorbed. If the buccastem is not effective you will need to obtain an alternative on a prescription from your GP.
- 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 try. 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.

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 - 100mg 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.

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. 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.

Non drug approaches

There are a wide range of non-drug approaches. Acupuncture is the only area that is supported by an evidence base. Neck pain is a common feature in people with migraine which results in various manipulative approaches. However this pain is central rather than a problem with the neck. The migraine generator in the brain and the origin of the nerve fibres supplying the neck and shoulders are located in the same area of the brain and there is invariably interference between them.

Electrical stimulation devices are gaining support with a small evidence base. Cefaly seems to be most appropriate for migraine. (<https://www.cefaly.co.uk/>)

Other things to look out for

It is very rare that migraine has an underlying serious cause particularly if it has been present for some time. However, you should consult your GP if the pattern of your headaches has changed significantly or you have any unusual patterns of weakness or abnormal sensations in between headache attacks. Migraine starting over the age of 50 should also be seen by your GP.

As well as treating your headache symptoms with medication it is also important to think about aspects of your lifestyle that may be affecting your headaches. Things you can do: (courtesy of Grampian NHS)



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.

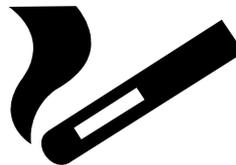


Alcohol

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. Nicotine replacement therapy (such as gum, patches, lozenges etc) is available on prescription.
- Most pharmacists can advise and supply appropriate treatment.

Water



- It is recommended that we drink two litres (eight large glasses) of water a day.
- Drinking too little water can lead to tiredness, lethargy, headaches, inability to concentrate, dry/cracked skin and low blood pressure.
- Coffee, tea, alcohol and related products can cause headaches.
- Coffee, tea and alcohol are diuretics and therefore cause more water loss from your body.
- Take a bottle of water to work/school/university. 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.
- Do not sleep with too many pillows.
- 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.
- Consider alternative therapies (such as reflexology, Bowen technique, acupuncture).
- Make sure you include time in your life for you!

Seeing your GP about your migraine

If the above measures haven't helped you then your GP is the next step. Often GPs find migraine 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.
- If you feel it would be helpful, attached is also a letter of introduction to your GP that may help the consultation.

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/wp-content/uploads/2018/02/The-Migraine-Trust-Help-at-work.pdf>

Patient organisation support groups can offer support and advice.

Migraine Action - www.migraine.org.uk

Migraine Trust - www.migrainetrust.org

The following pages contain a letter you can print off to hand to your GP if you feel it would be useful.

Exeter NHS Headache Clinic
St Thomas Health Centre
Cowick Street, Exeter EX4 1HJ
Telephone 01392 676679
Website: www.exeterheadacheclinic.org.uk

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?
Neurology 2003;61:375-382.

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 (Domperidone, metoclopramide) 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. 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 or Candesarten.
- 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 - Exeterheadacheclinic.org.uk

Patient organisation support groups:

Migraine Action - www.migraine.org.uk

Migraine Trust - www.migrainetrust.org