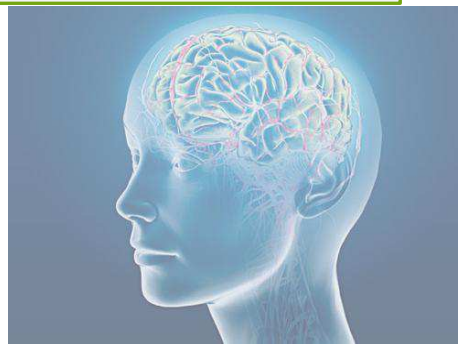
Migraine Management

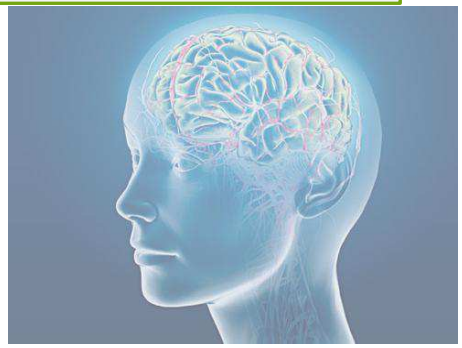
Jane Melling
Headache nurse
Mater Misericordiae Hospital

Migraine facts



- Among the most common disorders of the nervous system
- 3rd most prevalent medical disorder on the planet (lancet 2012)
- 12%-15% of Irish people suffer with migraine
- Accounts for over 500,000 people- 137 in 1000 people
- 25% of woman will experience migraine during their life time Disabling effect WHO (2012)
- Ranked as 4th cause among women and 7th ranking cause of all disease associated disability world wide
- Genetic predisposition
- 3 Genes for FHM are known- CACNA1A

Migraine facts



- Average migraineur misses1-5 work days per year due to migraine
- Cost to the Irish economy over 200 million per year
- Associated with personal & societal burden of pain, disability, damaged quality of life and financial cost
- Despite regional variation, migraine is a worldwide problem which affects people of all race, age, income levels and geographical areas
- Migraine has been underestimated, under recognised and under treated

Migraine definition

- Recurrent headache disorder manifesting in attacks lasting 4-72 hours. Typical characteristics of the headache are unilateral location, pulsating quality, moderate or severe intensity, aggravation by routine physical activity and association with nausea and/or vomiting & photophobia and/or phonophobia

  IHS (2011)

- Common and disabling brain disorder with a strong inherited component

  Goadsby and Sprenger (2010)

Migraine pathophysiology

what happens during the attack?

- C20 – Vascular cause
- Nervous problem- ion channels in brain
- Messenger molecules- CGRP/NO/serotonin
- Sensitisation of perivascular nerve terminals- over excitability
- Cortical spreading depression (aura)
- Research on going

Migraine Symptoms

- Headache
- Light, noise and smell sensitivity
- Nausea +/- vomiting
- Autonomic features (eyes, ears, nose, neck)
- Dizziness
- Sensory symptoms (pins & needles/numbness)
- Speech difficulty
- Visual symptoms

Types of migraine

- Migraine without aura
- Migraine with aura
- Acephalgic migraine
- Hemiplegic migraine

Migraine phases

- Phase 1-Premonitory
- Phase 2-Aura (20%)
- Phase 3-Migraine headache
- Phase 4-Resolution
- Phase 5-Recovery

Self help techniques

- Trigger avoidance
- Life style modifications
- Migraine diary
- Complementary therapy
- Rescue medication

What is a trigger factor?

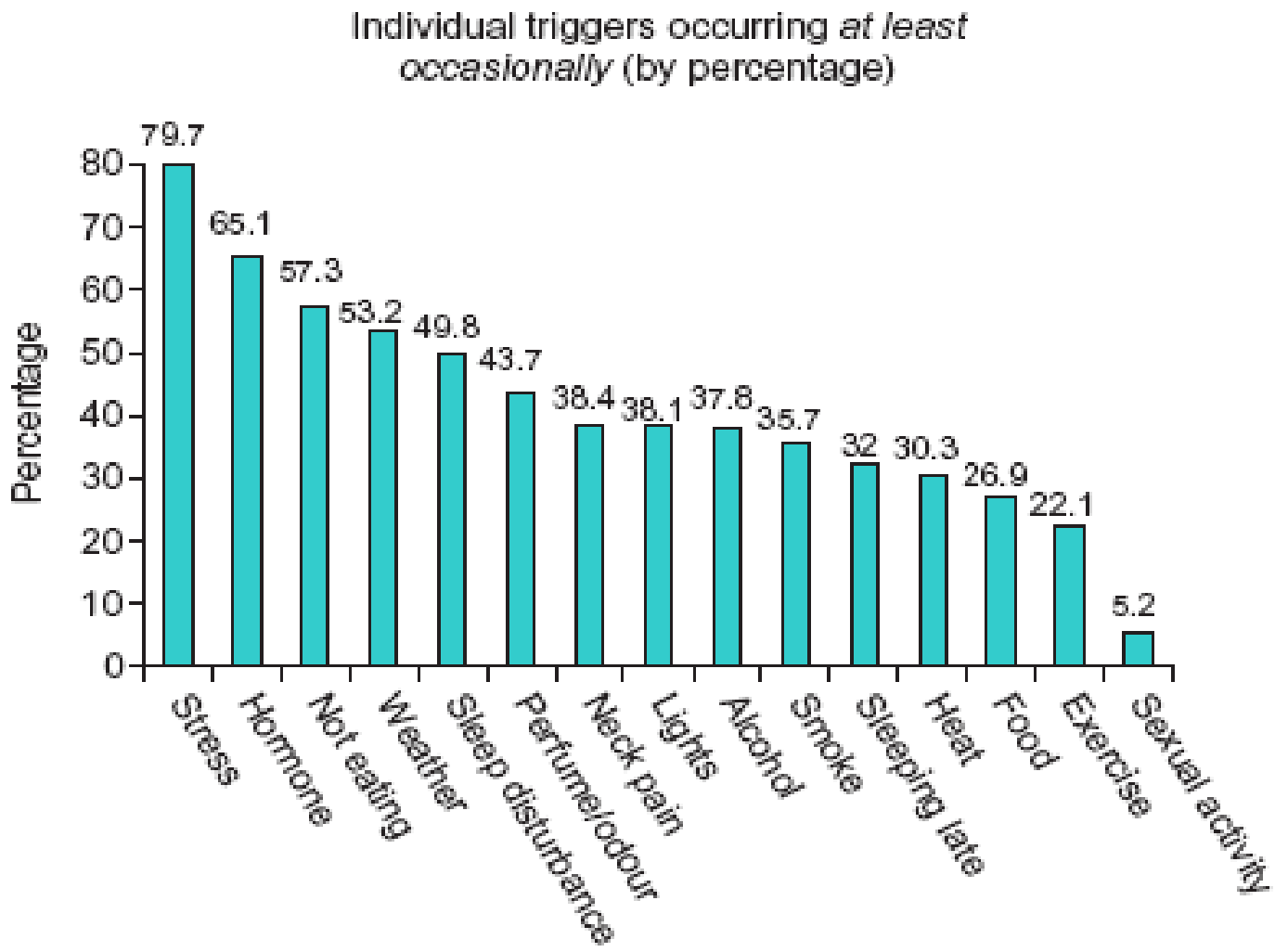
- A trigger is any event, change, external stimulus, or physical act which seems to result in migraine
- It precedes the migraine attack by up to 8 hours
- Identifying a triggering factor can be difficult
- Almost any factor can trigger an attack in a person predisposed to migraine and the list of possible suspects can be long and confusing

Common trigger factors

- Sleep factors
- Dietary
- Hormonal
- Emotions
- Environmental
- Exertion
- Weather

How to identify possible triggers

- What time you rise (including weekend)
- Daily activities (going to work, watching TV)
- Environment (your environment can contain triggers, such as strip lighting, smoke)
- What you eat and drink and regularity
- Exercising or travel
- Mood changes
- Weather changes
- Menstrual cycle
- Anything you can think of that is a changing part of your lifestyle


Individual triggers occurring *at least occasionally* (by percentage)
Percentage
0
10
20
30
40
50
60
70
80
79.7
65.1
57.3
53.2
49.8
43.7
38.4
38.1
37.8
35.7
32
30.3
26.9
22.1
5.2
Stress
Hormone
Not eating
Weather
Sleep disturbance
Perfume/odour
Neck pain
Lights
Alcohol
Smoke
Sleeping late
Heat
Food
Exercise
Sexual activity

Migraine diary

- Establish pattern
- Document headache frequency, severity and duration
- Document pain killers
- Document possible trigger factors

Month

THE **MIGRAINE** ASSOCIATION OF IRELAND

www.migraine.ie

Day	Duration	Headache Pain Score (Rate 1-10)	Symptoms	Medication (List All. Include name, dose and effect)	Possible Triggers (Stress, Food, Hormones etc)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

Lifestyle modifications

- Establish regular sleep pattern- 6 hours, avoid shift work, no sleeping in
- Regular meal times- avoid dieting to excess
- Exercise- hydration, maintain BSL
- De stress- outlet for stress, CBT, complementary therapy
- Travel- plan ahead
- Environmental
- Be prepared

Complementary therapy

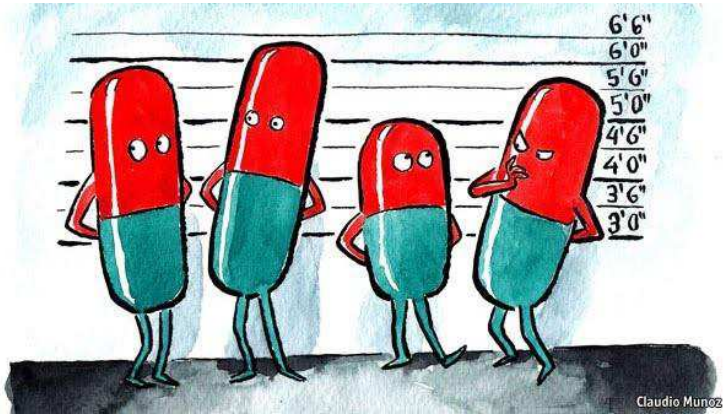
- Acupuncture
- Indian head massage
- Reflexology
- Relaxation/meditation
- Massage
- Choose what works for you!

During a migraine

- Dark room
- Avoid motion
- Hot/cold pack
- Mechanical pressure
- Rehydrate
- Rescue medication
- Don’t panic- this will pass

Medication management

- Acute migraine medication
- Preventative medication
- Nutraceuticals
- GON Block
- Botox
- DHE
- Medication overuse headache



Acute medication

- Treat the severe attacks
- Use a combination approach- NSAID/ Simple analgesia/ Triptan
- Add antiemetic
- Avoid Codeine/ Opiods
- 6 days per month

How To Acutely Treat Your Headache

No more than 6 days per month

Painkillers	Non-Steroidal	Triptans
Paracetamol	Difene (Diclofenac)	Zomig (Zolmitriptan)
Panadol	Naprosyn (Naproxen)	Naraverg (Naratriptan)
	Nurofen (Ibuprofen)	Imigran (Sumatriptan)
	Aspirin	Frovex (Frovatriptan)
	Ponstan	Maxalt (Rizatriptan)

Medication overuse headache

- Medication taken two days per week more than a six week period is sufficient to lead to the development of daily headache
- Rebound headache
- Withdrawal
- Limit analgesia days per month

Preventative medication

- Daily medication -6 month minimum
- Start low and go slow
- Class of medication- taper to the individual
- Possible side effects

Preventive treatments in migraine

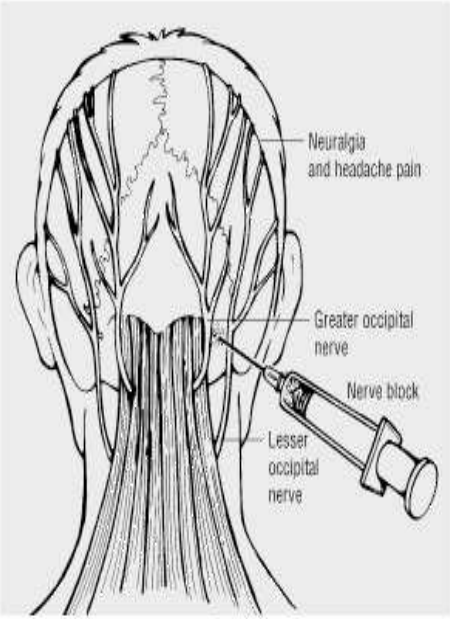
Medication	Dose	Side effect
Beta-blockers		
Propranolol118–120	40–120 mg twice daily	Reduced energy, tiredness, postural
Anticonvulsants		
Valproate121–123	400–600 mg twice daily	Drowsiness, weight gain, tremor, hair loss,fetal abnormalitie
Topiramate118,124,125	50–200 mg daily	Paraesthesiae, cognitive dysfunction, weight loss
Gabapentin126†	900–3600 mg daily	Dizziness, sedation
Pregabalin		
Calcium channel blockers		
Flunarizine	5–15 mg daily	Drowsiness, weight gain, depression, parkinsonism
Antidepressants		
Amitriptyline	10mg–125 mg every night	Drowsiness, urinary retention, arrhythmias;
nortriptyline		
Serotonin antagonists		
Pizotifen	0·5–2 mg daily	Weight gain, drowsiness
Methysergide	1–6 mg daily	Drowsiness, leg cramps, hair loss,retroperitoneal fi brosis
Other compounds		
Candesartan	2mg- 16 mg daily	Birth defects and fetal death
Nutraceuticals¶		
Ribofl avin136	400 mg daily	
Coenzyme Q10137	100 mg three times daily	Gastrointestinal upset
Melatonin		
Magnesium		

DHE-Dihydroergotamine

- Vasoconstrictor properties
- For sustained attack with recurrence
- Break cycle
- IV infusion x 5/7 every 8 hours
- Premedication with anti-emetic
- Possible side effects (leg cramps, nausea, chest pain)

GON block

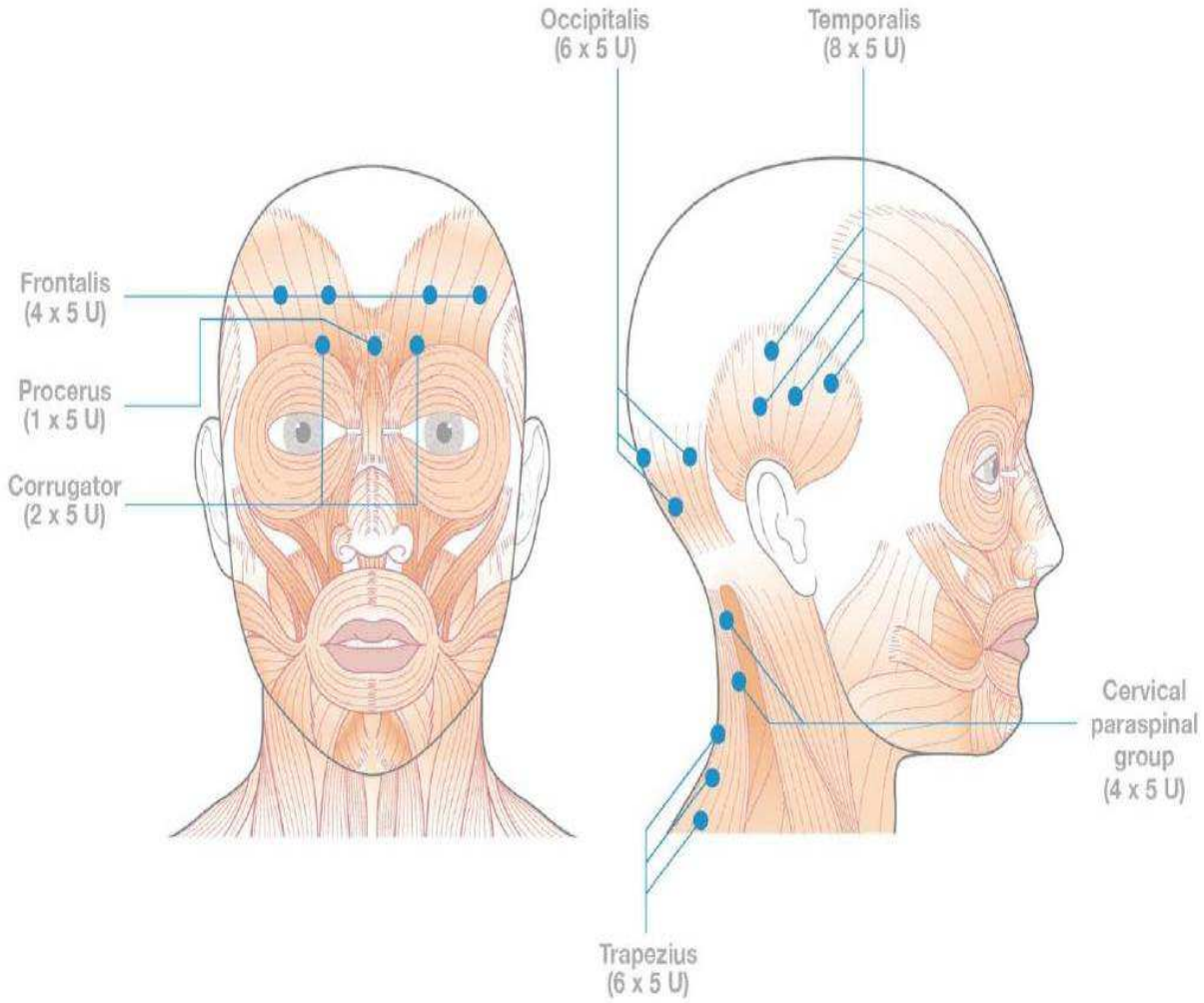
Figure 3. Occipital nerve block. Via a needle inserted at the base of the skull, an anesthetic agent is injected around the origin of the greater occipital nerve.



- Injection of greater occipital nerve
- Local anaesthetic & Steroid
- Repeat every 3 months
- Relief for days, weeks or months

Botox

- A total of 31 injections across seven specific head and neck muscles, with a minimum dose of 155 U of BOTOX® injected per patient[1]



Role of the headache nurse

- Evolving role
- Patient support and education
- Patient consultation including headache history taking
- Examination and assessment
- Phone based support/advice
- Follow up- nurse led clinics
- Research and education
- Therapeutic intervention

Taking a headache history

1. How many different headache types does the patient experience? Separate histories are necessary for each. It is reasonable to concentrate on the most bothersome to the patient but others should always attract some enquiry in case they are clinically important.	
2. Time questions	a) Why consulting now? b) How recent in onset? c) How frequent, and what temporal pattern (especially distinguishing between episodic and daily or unremitting)? d) How long lasting?
3. Character questions	a) Intensity of pain b) Nature and quality of pain c) Site and spread of pain d) Associated symptoms
4. Cause questions	a) Predisposing and/or trigger factors b) Aggravating and/or relieving factors c) Family history of similar headache
5. Response questions	a) What does the patient do during the headache? b) How much is activity (function) limited or prevented? c) What medication has been and is used, and in what manner?
6. State of health between attacks	a) Completely well, or residual or persisting symptoms? b) Concerns, anxieties, fears about recurrent attacks, and/or their cause

Examination

- Neurological examination
- Eye exam
- Fundoscopy
- Arrange Neuro imaging- (not helpful in diagnosing migraine)

Patient education

- Enable the individual to identify possible triggering factors and implement lifestyle modifications
- Develop coping techniques
- Reduce attack frequency & severity
- Avoid escalation of headache medication
- Improve quality of life

Support services

- Headache specialist centres
  - >Dublin Neurological Institute (Mater Hospital)
  - >Beaumont Hospital
  - >St Vincent's Hospital
  - >Cork University Hospital
  - >Galway University Hospital

Migraine Association of Ireland

Thank You
Any Questions?