

# Migraine

## Diagnosis and treatment of the attack

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# *Cephalalgia*

*An International Journal of Headache*



[www.cephalalgia.org](http://www.cephalalgia.org)

## **The International Classification of Headache Disorders**

**2nd Edition**



**Blackwell  
Publishing**

Classifying headache

# IHS Headache classification

## Primary

- Migraine
- Tension type
- Cluster

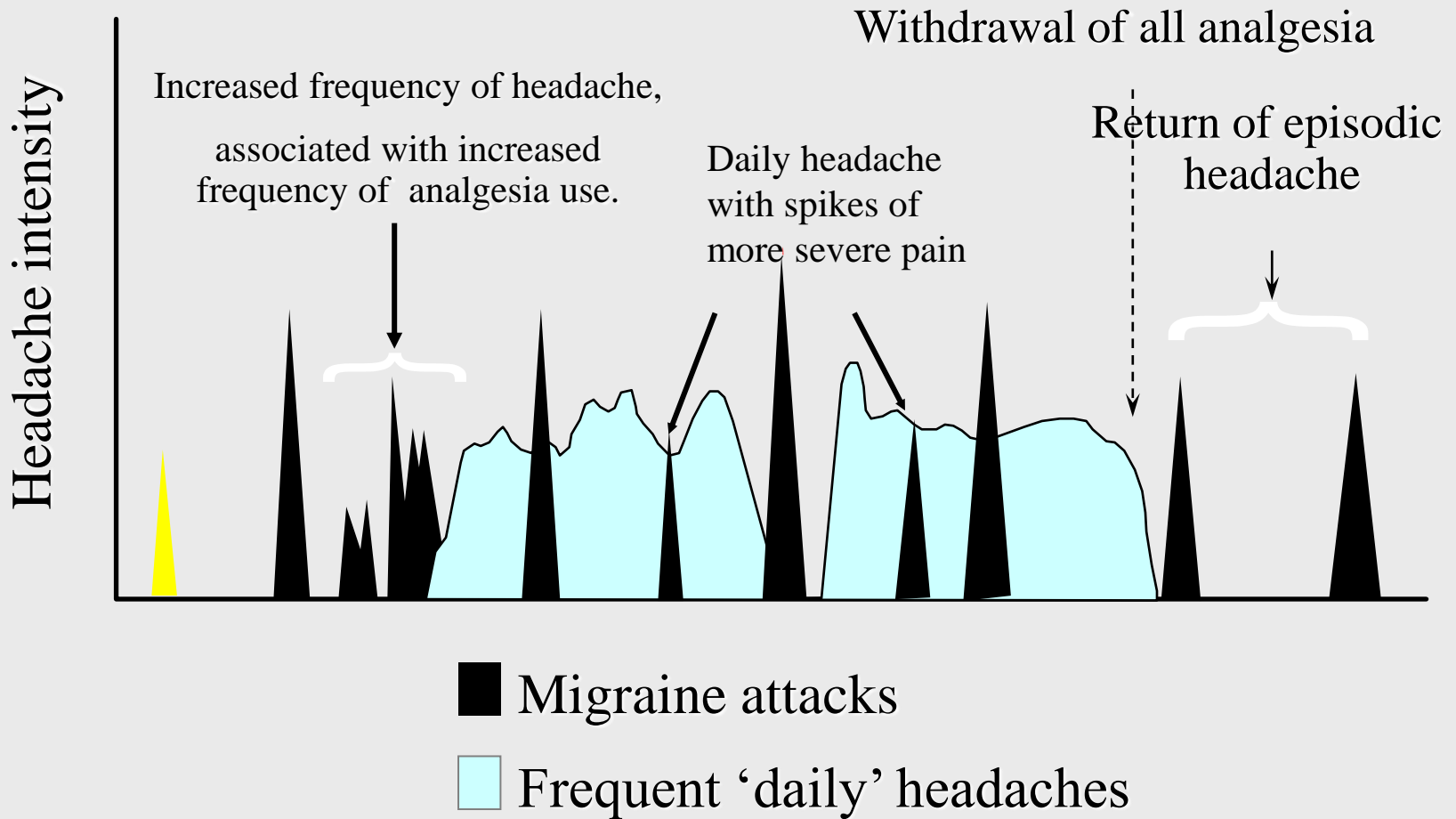
## Secondary

- Traumatic
- Vascular
- Non-vascular
- Substance induced
- Infection
- Metabolic
- Facial structures

# What do people think when they present with headache?

- I need glasses (<1% headache due to undiagnosed refractive errors)
- Its my blood pressure
- I have a tumour (1 in 1000 risk)

# Medication overuse headache



Is it migraine?

# Simple Diagnostic aid

- Migraine – *have to lie down*
- Tension headache – *can keep going*
- Cluster Headache – *have to bang head*

# Formal Migraine

- 4-72 hours
- Two of : unilateral, pulsating, moderate or severe pain, aggregation by physical activity.
- At least one of: nausea/vomiting, photophobia, phonophobia.

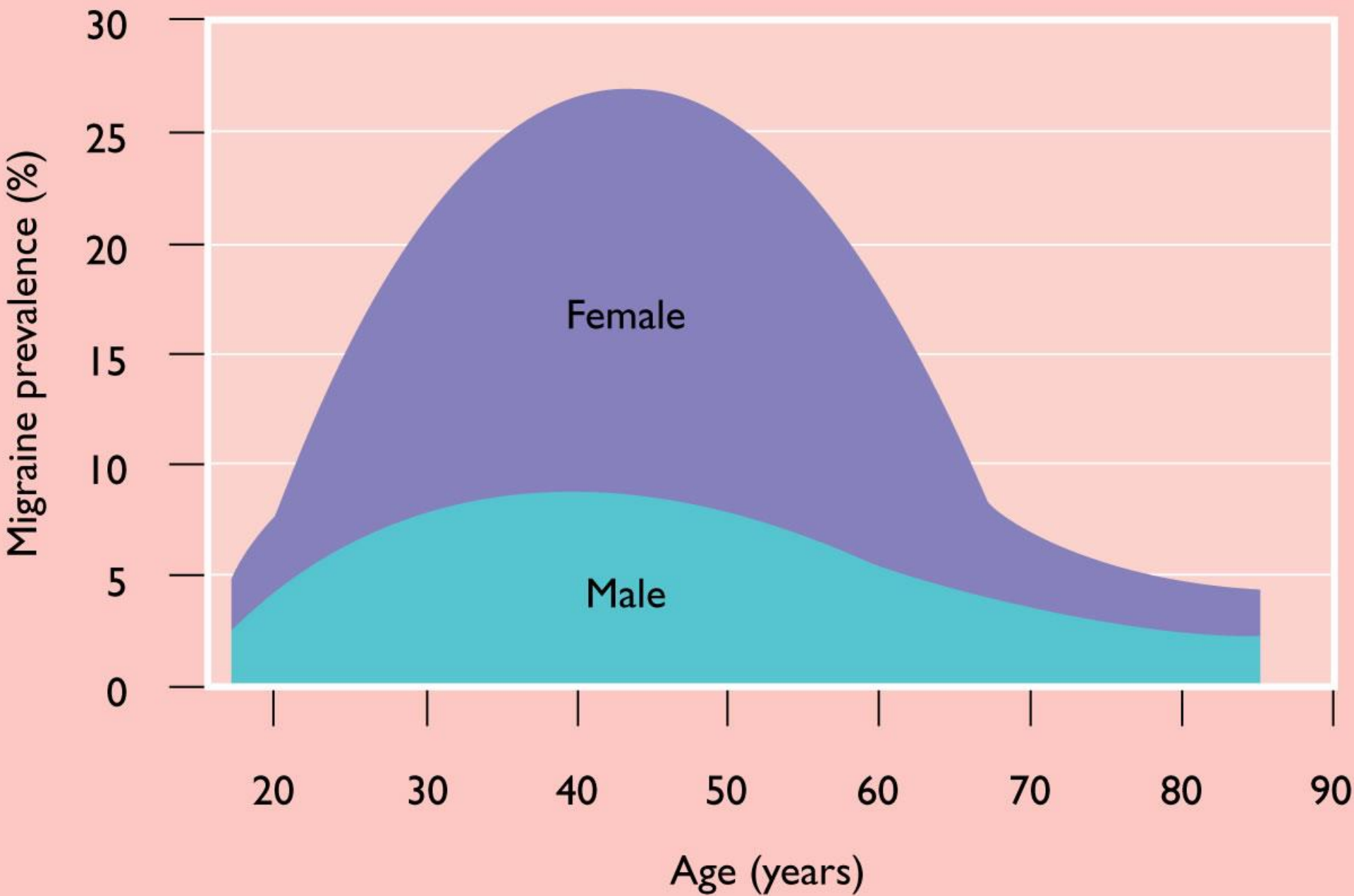


# Other diagnostic pointers for migraine

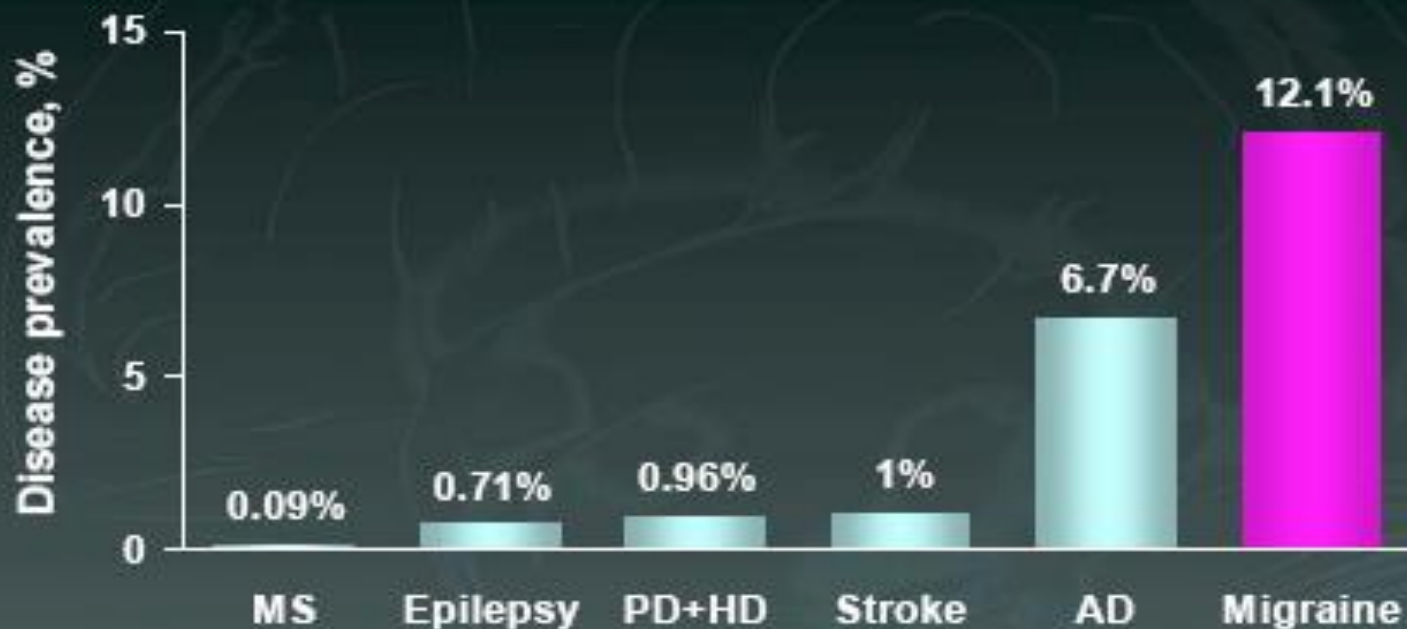
- I feel nauseated
- I don't like light or sound
- Movement makes things worse

Migraine

Background



# Migraine Prevalence Compared With Other Neurologic Diseases



MS = multiple sclerosis; PD+HD = Parkinson's disease + Huntington's disease; AD = Alzheimer's disease.

Adapted from Hirtz D. et al. *Neurology*. 2007;68:326-337.

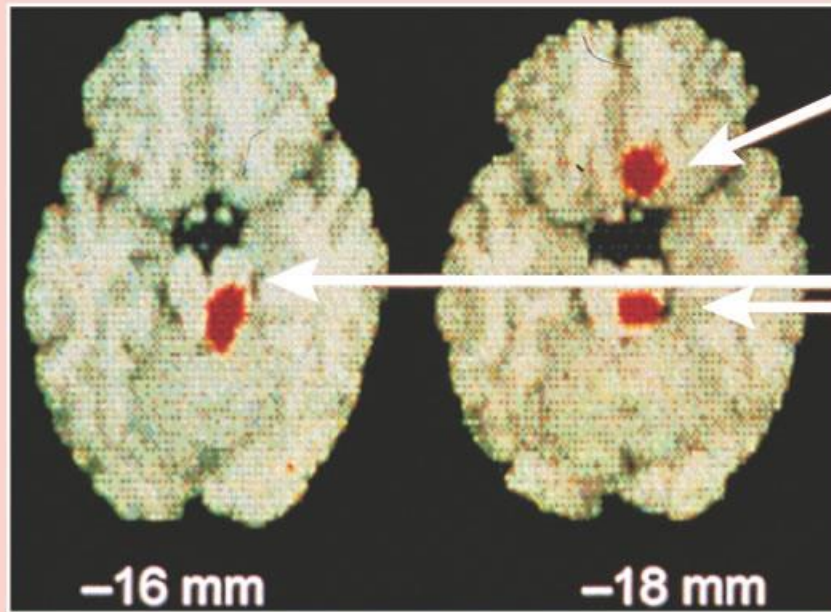
National Institute of Neurological Disorders and Stroke. Available at: [www.ninds.nih.gov](http://www.ninds.nih.gov). Accessed May 17, 2007.

# Impact of migraine

- In top 20 of WHO disability index
- 1000,000 people loose work or school each day
- Over £2 billion cost p.a. in absenteeism

What is migraine?

## Dysfunction of brain stem pain and vascular control centers



### Pain perception\*

■ Anterior cingulate cortex

### 'Migraine generator'\*

■ Raphe nuclei

■ Locus coeruleus

■ Periaqueductal gray

\*Areas of red indicate cerebral blood flow increases ( $p < 0.001$ )

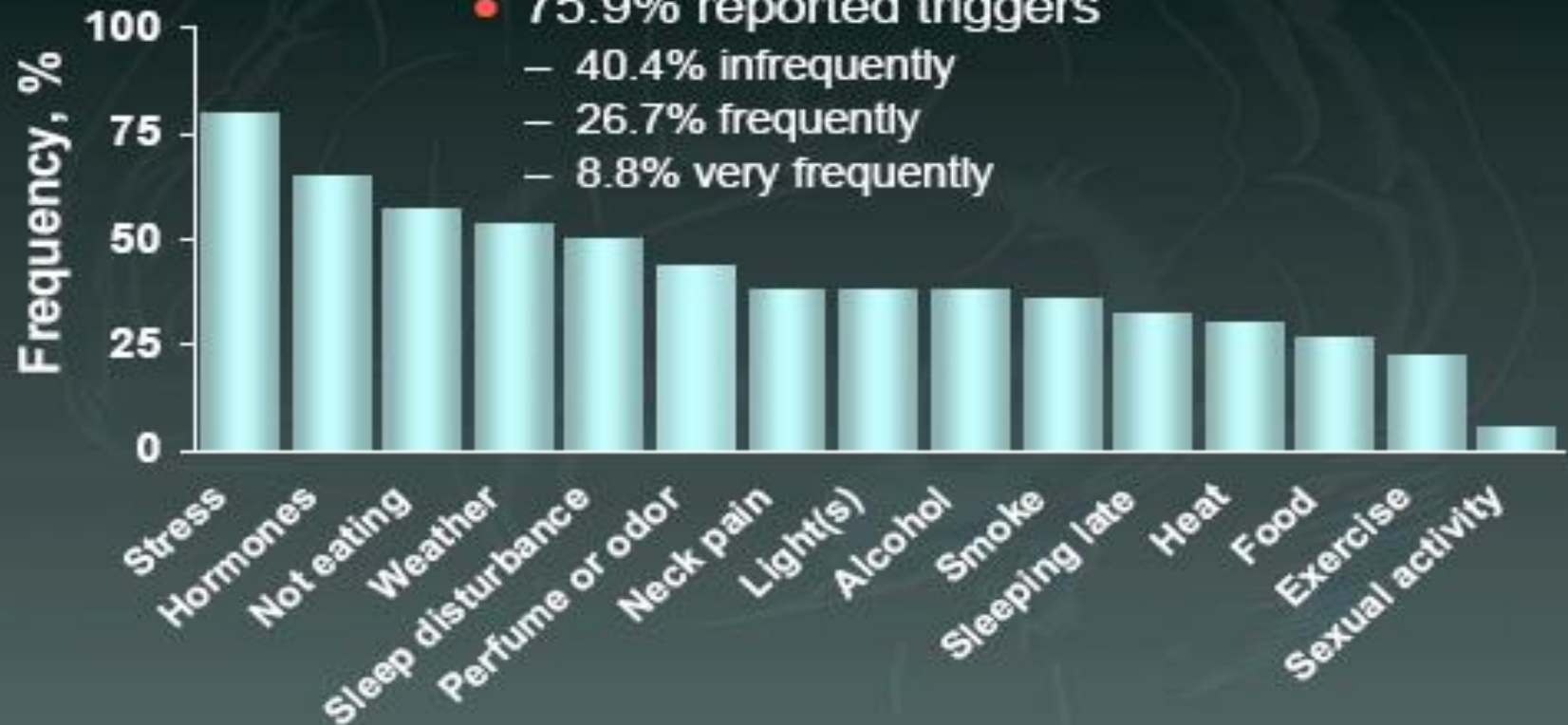




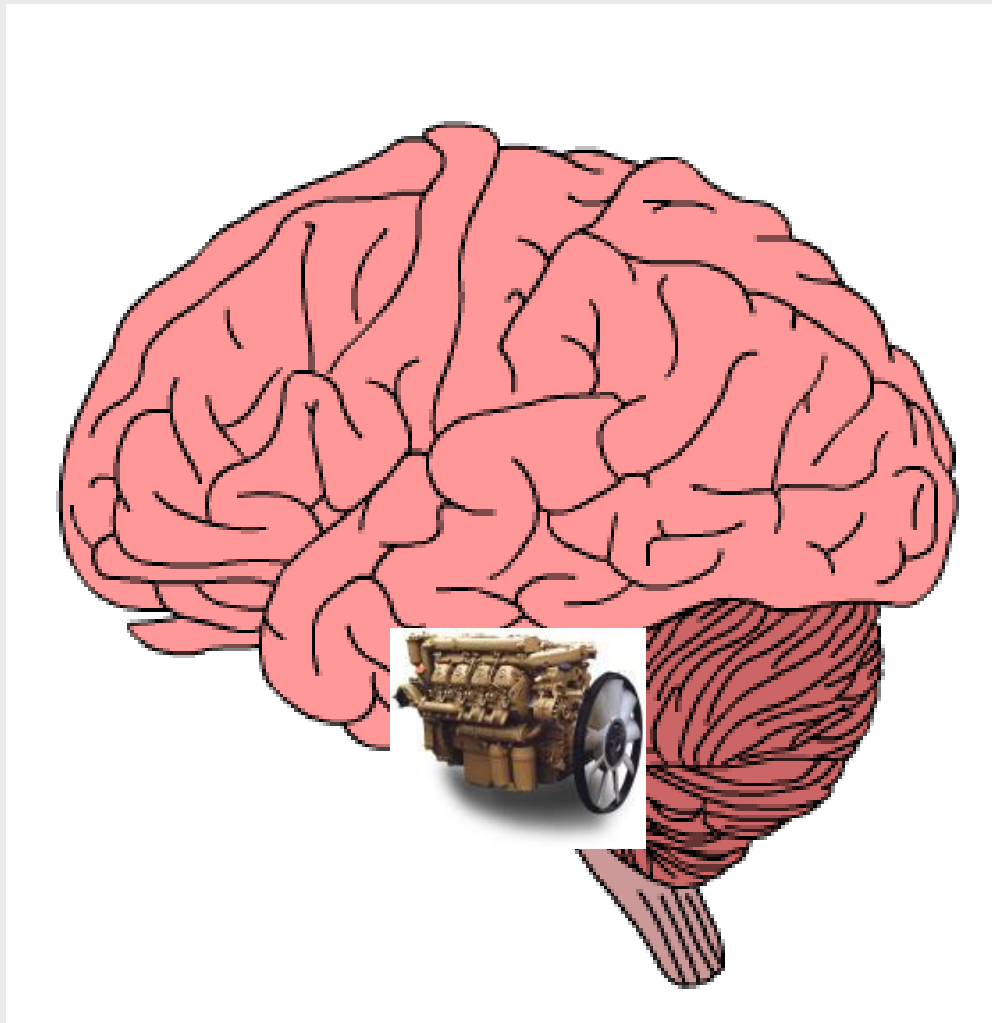


# Migraine Triggers and Precipitants

- N=1207 patients with migraine
- 75.9% reported triggers
  - 40.4% infrequently
  - 26.7% frequently
  - 8.8% very frequently

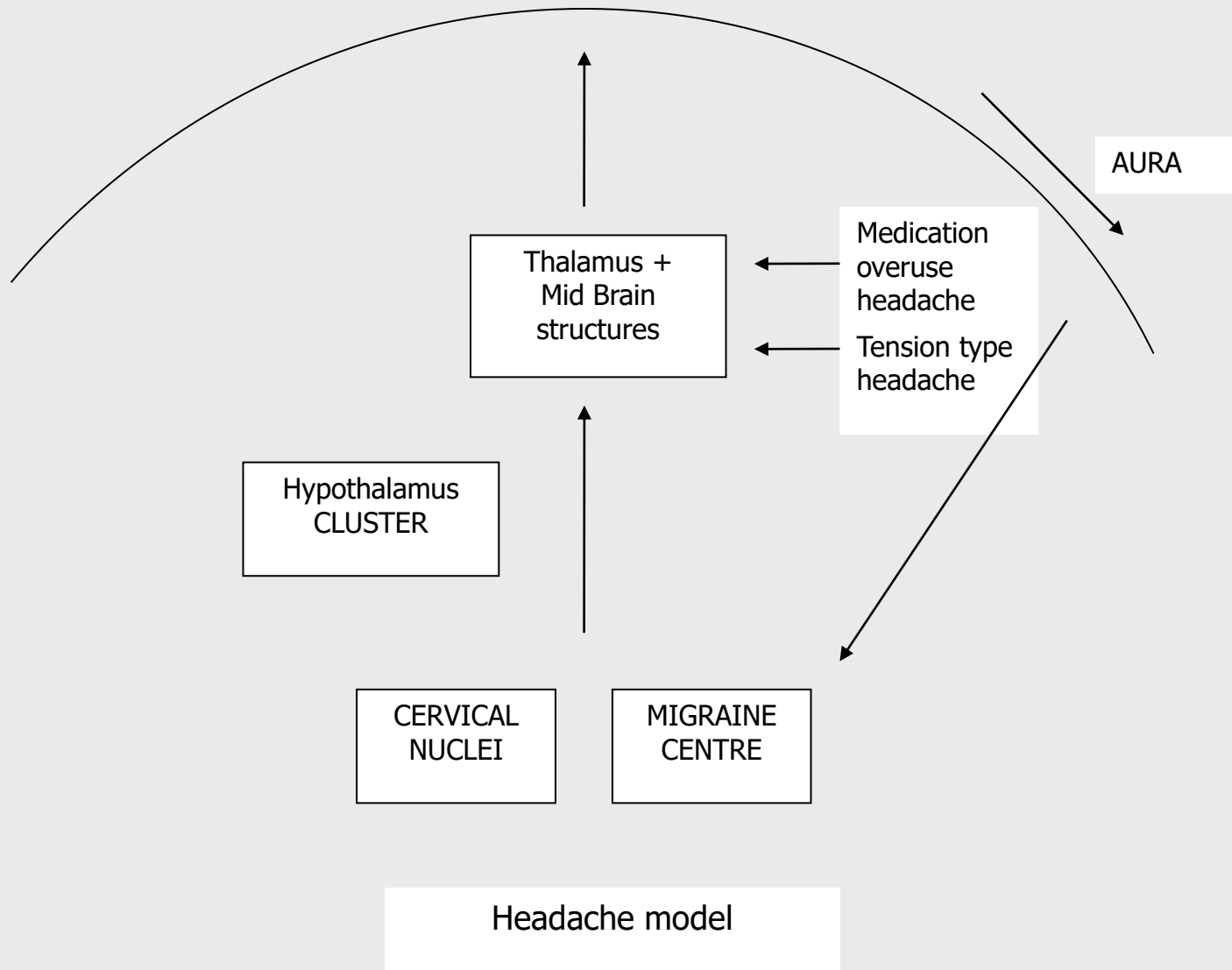


Adapted with permission from Kelman L. Cephalalgia. 2007; 27:394-402.



Migraineurs brains are different  
Problems with change

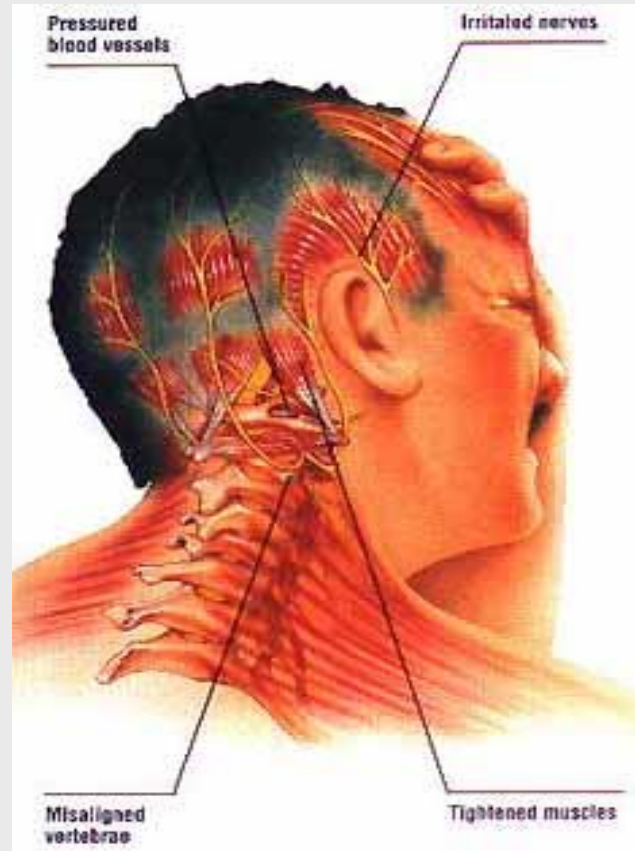
# Migraine: aura - activation migraine centre – modulation – Inflammation at brain surface





What is happening  
in Migraine?



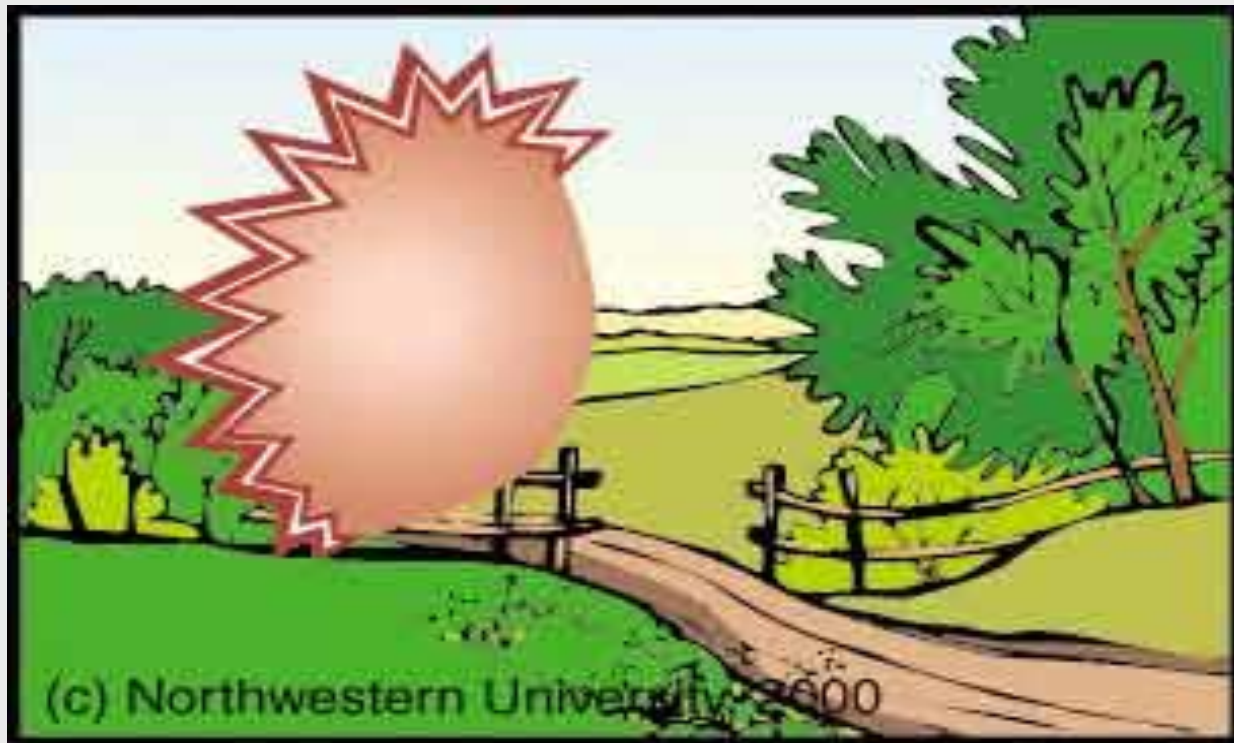


## Migraine and the neck

# The Migraine attack

- Prodrome
- Aura (movement, sensation, +,-)
- Headache
- Postdrome

# Aura without pain



# The management of acute migraine



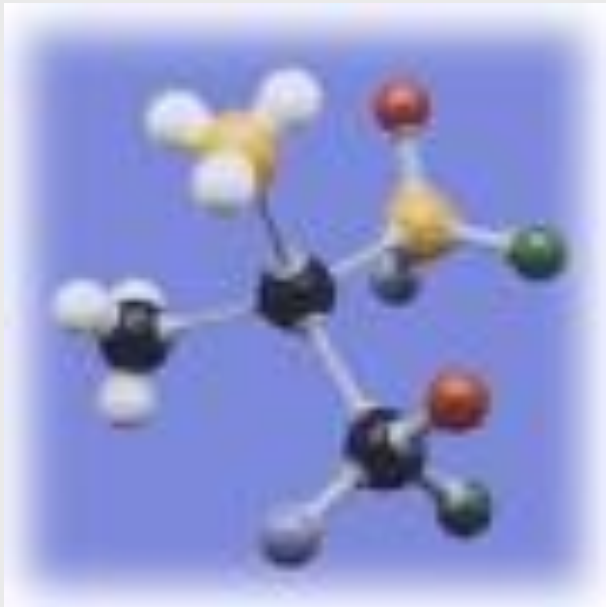


Some thoughts about medication





## Drug treatment





Licensed or unlicensed?  
Generic or proprietary?

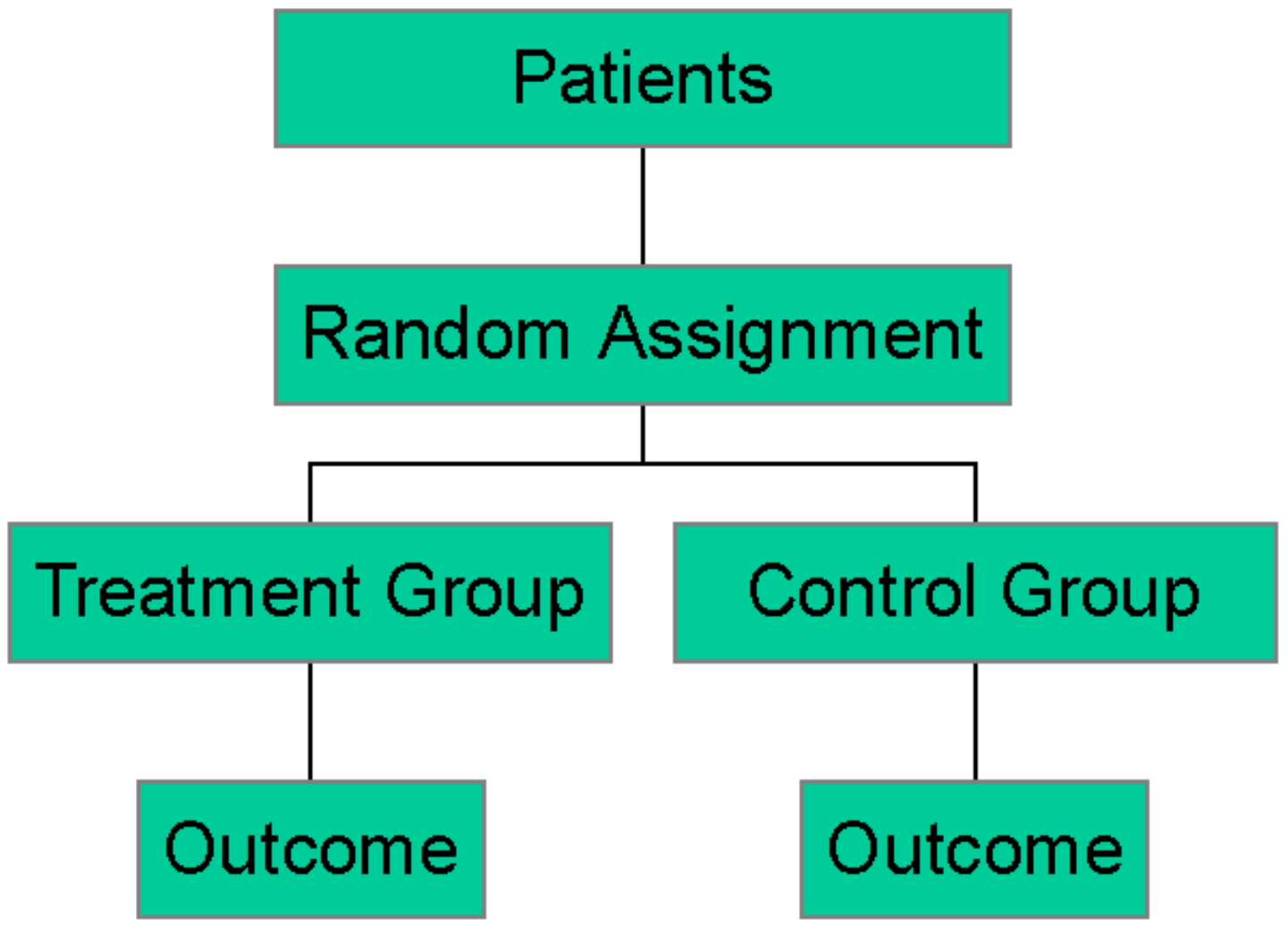


Benefit v disadvantages



Placebo effect







Is a drug worth paying for?

NICE







# Migraine treatment

## Acute

- Paracetamol (3)/Aspirin (3)/  
Domperidone (Motilium 3)



# Migraine treatment

## Acute

- Paracetamol/Asp/Domperidone
- Rectal NSAID/Domperidone



# Migraine treatment

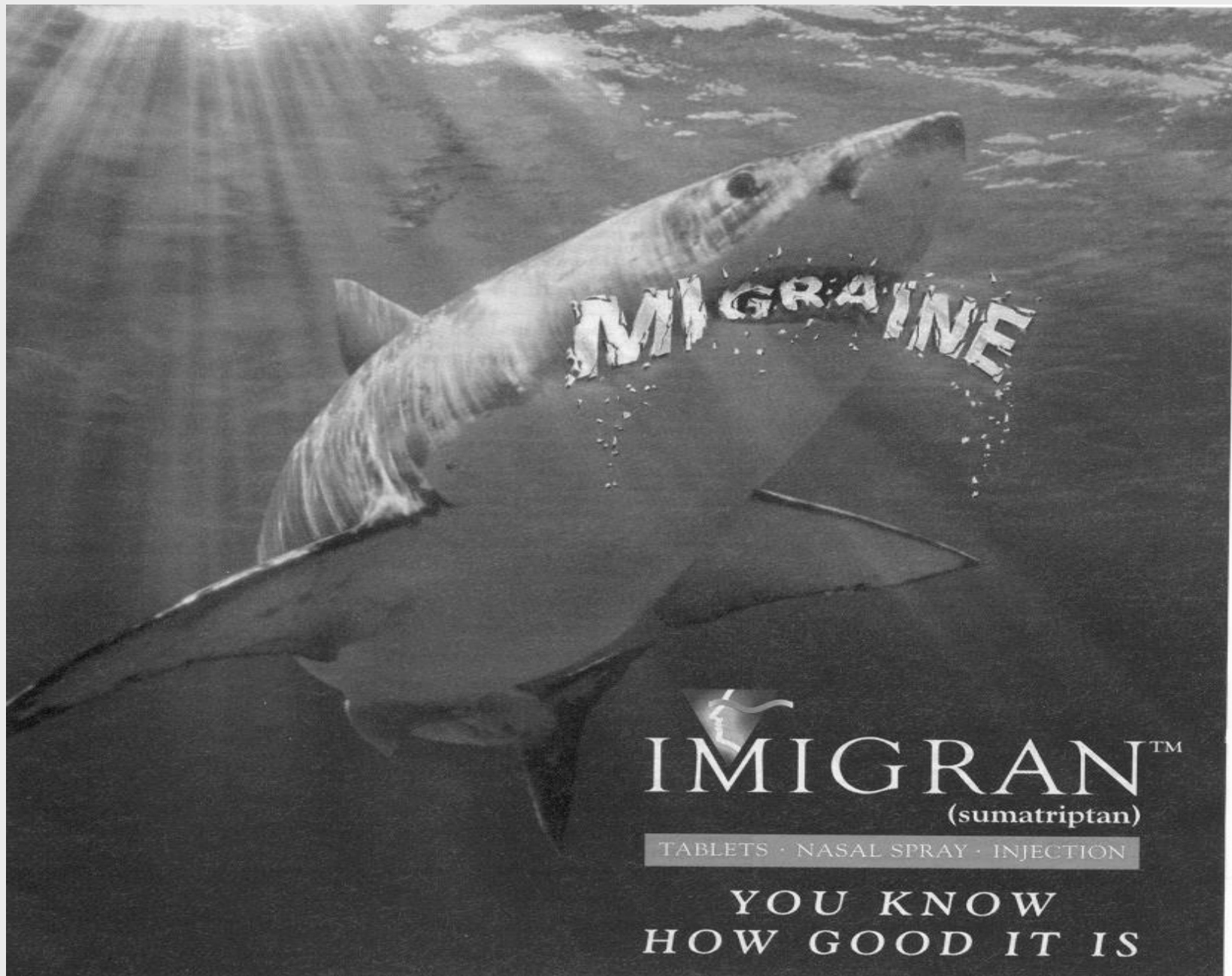
## Acute

- Paracetamol/Asp/Domperidone
- Rectal NSAID/Domperidone
- Triptan



# The Triptans

- Work on the migraine pathway
- Tablets, melts, nasal spray, injection.
- Side effects
- Failure response is not a class effect



MIGRAINE

IMIGRAN™  
(sumatriptan)

TABLETS · NASAL SPRAY · INJECTION

YOU KNOW  
HOW GOOD IT IS



A. MENARINI PHARMACEUTICALS  
UK LTD

ADULT

# Heathrow to Hong Kong and her migraine headache didn't take off

Taken early after the onset of a migraine headache, one 2.5mg dose of Migard can achieve a sustained resolution or attenuation of the headache helping the sufferer continue their day<sup>1</sup>. And at only £2-95 per dose it's good news for prescribers too.

**NEW**  
**migard**<sup>®</sup>  
frovatriptan

Long haul efficacy. Short haul price

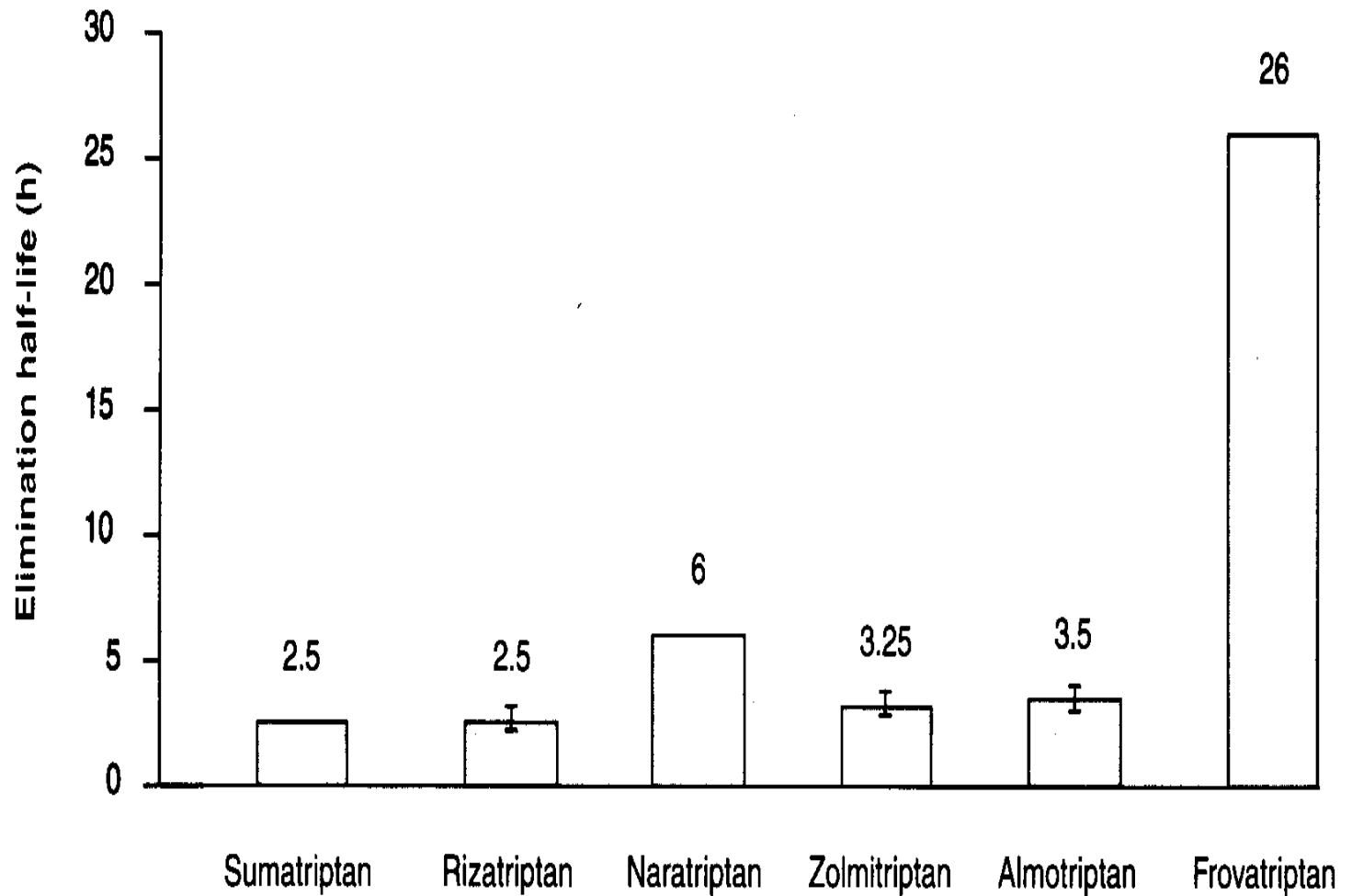
**ABBREVIATED PRESCRIBING INFORMATION – MIGARD (frovatriptan).** Please read SmPC before prescribing.  
**Presentation:** Film-coated tablets containing 2.5 mg frovatriptan. **Uses:** Acute treatment of the headache phase of migraine attacks with or without aura. **Dosage:** Oral administration. Adults (18-65 years): 2.5 mg. Total daily dose should not exceed 5mg. Children, adolescents and the elderly: Not recommended. **Contra-indications:** Hypersensitivity to any component, patients with a history of myocardial infarction, ischaemic heart disease, coronary vasospasm (e.g. Prinzmetal's angina), peripheral vascular disease, patients presenting with symptoms or signs compatible with ischaemic heart disease. Moderately severe or severe hypertension, uncontrolled mild hypertension. Previous cerebrovascular accident (CVA) or transient ischaemic attack (TIA). Severe hepatic impairment (Child-Pugh C). Concomitant administration of frovatriptan with ergotamine or ergotamine derivatives (including methysergide) or other 5-hydroxytryptamine (5-HT<sub>1</sub>) receptor agonists. **Warnings and Precautions:** Do not use for hemiplegic, basilar or ophthalmoplegic migraine. Do not administer to patients at risk of coronary artery disease, heavy smokers or users of nicotine substitution therapy without a prior cardiovascular evaluation.

Specific attention should be given to post-menopausal women and men over 40 years of age presenting with these risk factors. In very rare cases serious cardiac events have occurred in patients with no underlying cardio-vascular disease when taking 5-HT<sub>1</sub> receptor agonists. Transient symptoms including chest pain or tightness which may be intense and involve the throat. Allow 24 hours between doses of frovatriptan and ergotamine-type medications. In case of overdose, the active substance can accumulate leading to increased side-effects. Do not give to patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption. Concomitant use with preparations containing St. John's wort (*Hypericum perforatum*) may result in side effects. **Pregnancy and lactation:** Safety not established in pregnancy. Do not give to breast feeding women. **Interactions:** Concomitant use contraindicated with Ergotamine and ergotamine derivatives (including methysergide) and other 5-HT<sub>1</sub> agonists. Concomitant use not recommended with Monoamine Oxidase Inhibitors or *Hypericum perforatum* (St. John wort). Use with caution with selective serotonin-reuptake inhibitors (citalopram, fluoxetine, fluvoxamine, paroxetine, sertraline), Methylergometrine,

Fluvoxamine, Oral contraceptives. **Side-effects:** Common side effects include dizziness, paraesthesia, headache, somnolence, dysaesthesia, hypoaesthesia, nausea, dry-mouth, dyspepsia, abdominal pain, fatigue, sensation of abnormal temperature, chest pain, flushing, throat tightness, skeletal pain, abnormal vision, increased sweating, palpitation. **Overdosage:** High therapeutic margin. No specific antidote. **Pharmaceutical precautions:** Do not store above 30°C. Blister: store in the original package. Bottle: keep the container tightly closed. **Pack Sizes, Product Authorisation Number:** Blister packs containing 6 tablets. Not all pack sizes may be marketed. PL 16239/0017. **Legal category:** POM Product. Package quantities and price: 6 tablets: £17.70. **Authorisation holder:** Menarini International Operations Luxembourg S.A., 1 Avenue de la Gare, L-1611 Luxembourg. **Further information available from:** A. Menarini UK Ltd, Menarini House, Mercury Park, Wycombe Lane, Woodburn Green, Buckinghamshire, HP10 0HH, UK. **Date of preparation:** March 2003 © denotes registered trade mark References  
1. Elkind A, Still K, Keywood C. Poster presented at EFNS, Istanbul June 2002

MIG/SEN/006D/02.03

NEW FOR THE ACUTE TREATMENT OF MIGRAINE HEADACHE



## Triptan Half Life

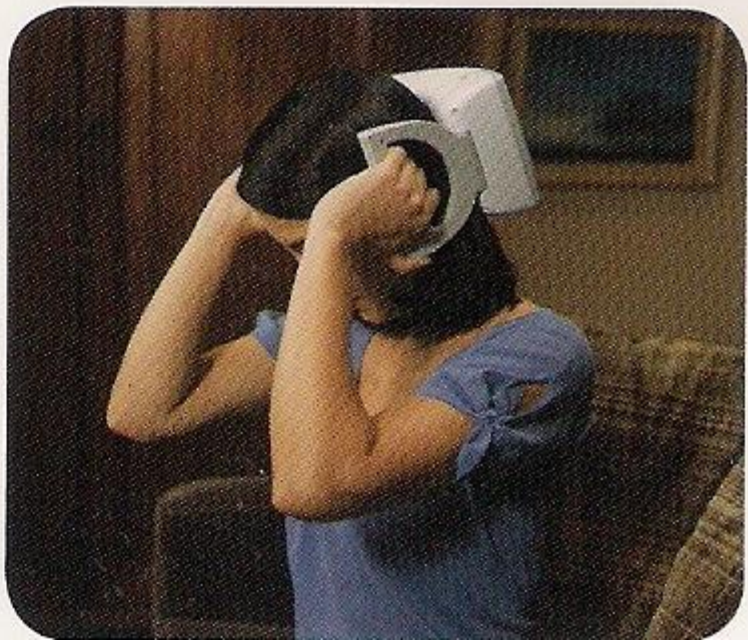
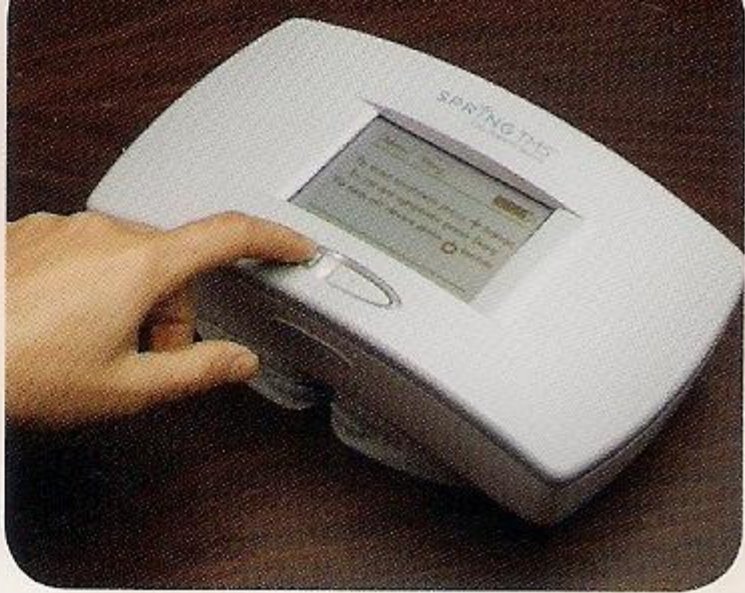




Triptans in the elderly

# For the migraine attack

- *Motilium* (10mg) – 2 tablets for nausea
- *Paracetamol* (500mg) – 3 tablets for pain
- *Soluble Asprin* (300 mg) – 3 tablets for inflammation
- *Imigran* (50mg) migraine specific – 1 or 2



# Getting the best out of you GP

- Emphasise the impact
- Help with diagnosis
- Help with triggers
- Reassure that you don't expect a scan
- Direct to information
- Ask to be referred
- Help yourself

# Migraine

## Diagnosis and treatment of the attack

David Kernick  
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You Tube Migraine channel or David Kernick Channel

# Migraine treatment - Preventative

## Evidence

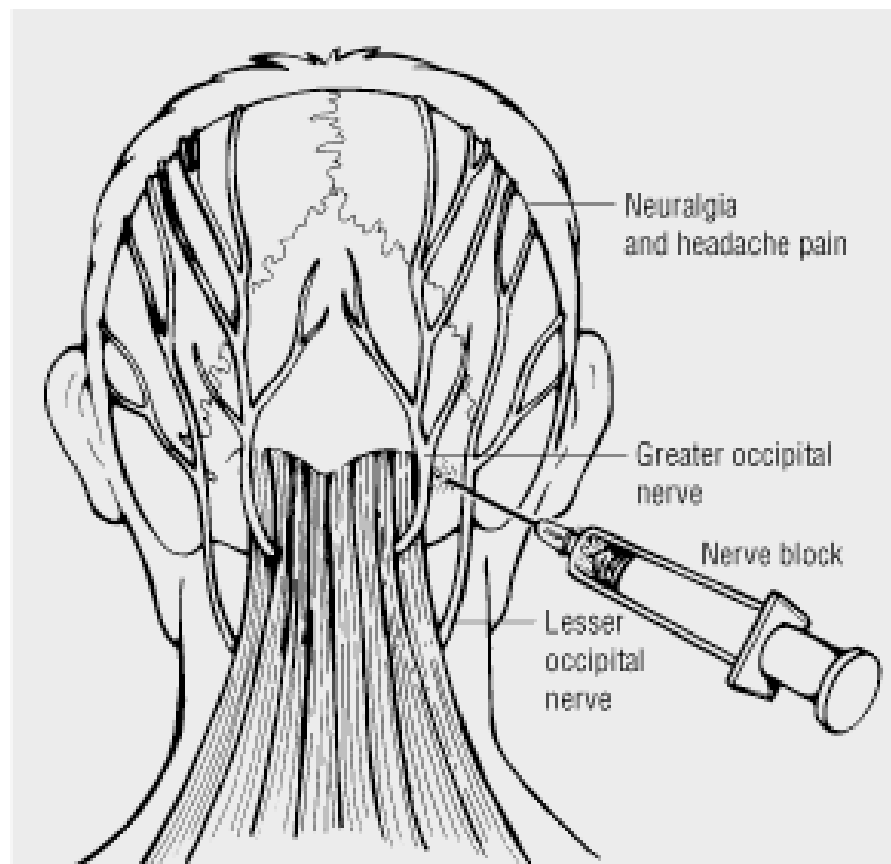
- Beta blocker ++ (L)
- Pizotifen + - (L)
- Amitriptyline +
- Sodium valproate + +
- Topiramate ++ (L)
- Calcium antagonists + -
- Lisinopril, Montelukast + -
- Methysergide +++ (L)

# Migraine treatment - Preventative

- Feverfew
- Butterbur
- Magnesium
- Riboflavin
- Coenzyme Q10

# Migraine treatment - Preventative

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.







**THE BEST THING YOU CAN DO FOR  
YOUR MIGRAINE IS TO GIVE UP FAGS,  
BOOZE AND FRIED FOOD**



# The Treatment of Migraine

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