



# INJECTABLE AND NEWER ORAL TREATMENTS FOR PREVENTING MIGRAINE

## WHAT IS MIGRAINE?

Migraine is a type of severe **headache** that usually starts on **one side** of the head as a dull pain that slowly becomes a **throbbing** pain. It can last for hours to days and worsens with movement or normal daily activities. Other symptoms such as nausea, vomiting, and sensitivity to sound, light, and smell can also occur during migraine.

Many patients with migraine experience symptoms in the **hours or days before** a migraine attack occurs (**prodrome**), such as constipation, food cravings, mood changes, neck stiffness, and uncontrollable yawning. Some patients may have **aura** symptoms occurring **right before** a migraine starts, which includes blurry vision, flashing lights, numbness and tingling, and difficulty speaking. Aura symptoms usually do not last more than an hour.

Migraine is around **3 times more common in females** than males.



In Singapore, migraine affects around **1 in 10 adults**.



### PRODROMAL PHASE



### AURA PHASE








## LIFESTYLE CHANGES TO MANAGE MIGRAINE

- S**leep: Try to get **7 to 9 hours** of good quality sleep
- M**eal: Take regular meals and stay **well hydrated**
- A**ctivity: Stay physically active with **regular exercise**
- R**elaxation: Try to **manage** your stress
- T**rigger avoidance: Identify and **avoid** triggers

Migraine can be managed by following a healthy lifestyle including getting enough sleep, eating **regular** meals, exercising, and avoiding possible triggers.

The acronym "**SMART**" can help you remember the changes you can make to reduce or ease migraines.

Migraine can be **triggered** by factors such as alcohol consumption, diet, hormonal changes, stress, and environmental factors. They can be **different** for each person and sometimes, there is no obvious trigger. Keeping a **migraine diary** may help you identify any triggers including:

 CHANGE IN LIFESTYLE HABITS	 DIET	 ENVIRONMENT	 HORMONES	 USE OF MEDICINES
<ul style="list-style-type: none"><li>Missing a meal</li><li>Sleep disturbances</li><li>Smoking</li><li>Stress</li></ul>	<ul style="list-style-type: none"><li>Alcohol</li><li>Artificial sweeteners</li><li>Caffeine</li><li>Certain foods</li><li>Food additives and preservatives</li></ul>	<ul style="list-style-type: none"><li>Heat</li><li>Lights</li><li>Loud noise</li><li>Strong smells</li><li>Exposure to chemicals</li><li>Weather changes</li></ul>	<ul style="list-style-type: none"><li>Menses</li><li>Ovulation</li><li>Menopause</li></ul>	<ul style="list-style-type: none"><li>Hormone pills</li><li>Oral contraceptives</li></ul>

A **migraine diary** can also help doctors figure out the causes and possible treatments for your migraines if you record:

- how often you have migraine
- how an attack affects your ability to carry out daily activities (level of disability)
- the level of pain you experience during an attack
- the medicines you were using
- the possible trigger(s) of your attacks

Date	Day	Time	Migraine Pain Level (no pain) 0 1 2 3 4 5 6 7 8 9 10 (most pain)	Duration	Trigger	Medication Taken	Relief
		14:00	4	1 hr			None Mod Good
		11:20	7	15 mins			None Mod Good
		11:10	5	10 mins			None Mod Good
							None Mod Good
							None Mod Good
							None Mod Good
							None Mod Good
							None Mod Good
							None Mod Good
							None Mod Good



## PREVENTIVE TREATMENTS FOR MIGRAINE

Migraines vary between people and so does the treatment. Effective **acute** treatments are available to reduce the pain and other symptoms associated with the early stages of a migraine attack.

**Overuse** of the acute treatments can lead to **medication-overuse headache**. People who have migraine **frequently** and use acute treatments regularly can consider taking **preventive** treatments to reduce the frequency, severity, and duration of migraine attacks. The choice of preventive treatment depends on different factors such as your preferences, migraine frequency, degree of disability during a migraine attack, side effects, medical history, and response to previous treatments.

Drugs such as propranolol or topiramate oral tablets are usually prescribed first. If these treatments do not work well, injectable drugs such as botulinum toxin type A (Botox), eptinezumab, erenumab, fremanezumab, galcanezumab or newer oral drugs such as atogepant or rimegepant may be needed to reduce the number of migraine attacks.

### INJECTABLE AND NEWER ORAL DRUGS USED FOR PREVENTING MIGRAINE



#### Injectable drugs

- Botulinum toxin type A (Botox)
- Eptinezumab
- Erenumab
- Fremanezumab
- Galcanezumab



#### Newer oral drugs

- Atogepant
- Rimegepant

### WHAT DOES THE EVIDENCE FROM CLINICAL STUDIES SAY ABOUT INJECTABLE AND NEWER ORAL DRUGS FOR PREVENTING MIGRAINE?

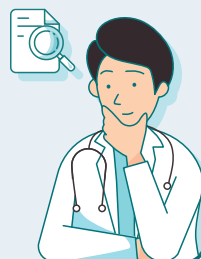
ACE reviewed the available clinical evidence and received expert advice from doctors and patients about injectable and newer oral drugs used to prevent migraine. ACE also negotiated the prices of these drugs with the companies.<sup>1, 2</sup>

#### Injectable drugs

**Botulinum toxin type A<sup>^</sup>, eptinezumab, erenumab, fremanezumab, galcanezumab** are safe and likely to be **as effective as each other** for preventing migraine.

#### Newer oral drugs

**Atogepant** and **rimegepant<sup>\*</sup>** are effective treatment options for preventing migraine but more studies are needed to determine if they work better than injectable drugs.



<sup>^</sup>For chronic migraine only, which is defined as having 15 or more migraine days per month for at least 3 months

<sup>\*</sup>For episodic migraine only, which is defined as having less than 15 migraine days per month

### SUBSIDISED DRUGS <sup>1, 2</sup>

#### Subsidised

- ✓ Galcanezumab<sup>#</sup>
- ✓ Botulinum toxin type A (Botox)<sup>Δ</sup>

#### Not subsidised<sup>▼</sup>

- ✗ Eptinezumab
- ✗ Erenumab
- ✗ Fremanezumab
- ✗ Atogepant
- ✗ Rimegepant

Treatment costs are subsidised by **40% to 75%** for eligible patients

<sup>#</sup> For adult patients with migraine that has not improved despite trying at least three migraine preventive treatments and who experience at least four migraine days per month.

<sup>Δ</sup> For adult patients with chronic migraine that has not improved despite trying at least three migraine preventive treatment.

<sup>▼</sup> Not subsidised because their benefits do not justify their costs at the prices offered by the companies.



### KEY MESSAGES

Injectable drugs such as **galcanezumab** and **Botox** are subsidised as preventive treatments for certain patients with migraine that has not improved with other preventive drugs.

The treatment that you need will depend on different factors such as your preferences, migraine frequency, degree of disability during a migraine attack, side effects, medical history, and response to previous treatments. Discuss with your **doctor** which treatment is suitable for you, and your concerns. You can also speak to a **medical social worker** if you need further financial assistance for any treatments.

#### Sources

1. ACE Technology Guidance on *Calcitonin gene-related peptide (CGRP) monoclonal antibodies for prophylaxis of migraine*, June 2024
2. ACE Technology Guidance on *Atogepant and rimegepant for prophylaxis of migraine*, June 2025



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