Medication Overuse Headache

Medication overuse headache (MOH) is a common secondary headache disorder that develops when people with pre-existing headache disorders use acute treatments too frequently. It occurs most commonly in people living with migraine, but it can also occur with other headache disorders such as tension-type headache or cluster headache.

Acute medications are those that are taken during a migraine attack, such as triptans or analgesics. When taken too often, treatment becomes less and less effective, resulting in the cycle of frequent headaches, re-dosing and poor response that characterises MOH. Medication overuse can play a significant role in the progression from an episodic to a more disabling chronic migraine pattern; therefore, recognising and preventing the development of MOH is a crucial part of headache management.

Headaches associated with MOH usually:

- Occur every day or nearly every day, and are often present upon awakening
- Improve with pain relief medication but then return as your medication wears off

MOH may also be accompanied by:

- Nausea
- Restlessness
- Difficulty concentrating
- Memory problems
- Irritability

MOH IS NOT YOUR FAULT

Over one in ten people living with migraine also have MOH. Even with best prescribing and communication practices from doctors and pharmacists, MOH can still occur. More needs to be done to ensure that patients, doctors, and pharmacists are aware of the risks of MOH. You can also reduce your chances of developing MOH by setting limits on your acute treatment intake and keeping track of your analgesic use.

What causes MOH?

While we know that the frequency of acute medication intake plays a role in the development of MOH, physiological mechanisms are also involved. Hypersensitisation and hyper-responsiveness of the brain in those suffering from MOH suggest that acute medications may make your brain more sensitive to migraine triggers. However, when medications have been stopped, normal sensory processing typically returns.

There are many ways people with migraine can trigger MOH without realising that this can occur. For example:

- Taking over-the-counter medications more frequently than they should, or more than approximately 15 days per month
- Using triptans at regular intervals for pain relief rather than only at the start of a migraine attack
- Taking several different classes of medications (for example triptans, paracetamol and anti-inflammatories) without realising that the total number of days of acute medication intake can lead to MOH even if individual drugs are not overused.
- Taking medication as directed when the pharmacist or prescriber is not aware of the additional limitations necessary to prevent MOH
- Even if you take pain medications for other reasons such as joint pain or back pain, it can contribute to MOH

MOH can occur with both over-the-counter and prescription pain-relief medicines as well as migraine-specific medications like triptans.

We all know what it's like: you're in pain, and you don't want to be. You keep taking pain relief. Maybe you don't even think about how many you're taking or on how many days you're taking them. At some point, you realise you're getting headaches more and more often, and the drugs work less and less. That's MOH.

Know your limits!

The best advice to avoid the development of MOH is to limit the number of days you use acute medications. Try to limit the use of any acute medications for migraine or pain relief to two days per week.

It is better to avoid opioids (like codeine, tramadol or oxycodone) entirely as they have a strong association with MOH, and MOH related to overuse of opioids is extremely difficult to treat. While many patients view opioids (such as codeine, oxycodone or tramadol) as their "strongest" option for pain relief, these medications don't help to "turn off" the migraine, which often recurs when the dose wears off.

Be sure to follow instructions on how to take medications, particularly triptans. If nothing works to relieve the pain, don't take more medication, talk to your doctor about trying something else. The limits to avoid MOH apply when taking pain relief for any condition. If you need to take long term pain relief, discuss with your doctor, and look for non-drug solutions to help manage your pain.

Work with your doctor to develop an acute management plan which outlines which medications to take when you have a migraine and how often you should take them. This is beneficial in helping you to manage your migraine attacks and help prevent MOH from occurring.

If you are overusing acute medications, it can be helpful to talk to your doctor about adding in a headache preventer; the aim of a headache preventer is to control the background level of pain so that you require acute medications less frequently. This can be a helpful way to treat MOH

Medication Type	Frequency
Simple analgesics like paracetamol, ibuprofen and aspirin	Max 15 days per month
Triptans and ergotamines	Max 10 days per month
Combination and prescription pain medications	Max 10 days per month
Combination of any of the above	Max 10 days per month
Caffeine	Max 200mg per day (2 cups of coffee)

Medicinal cannabis: There is not a great deal of research on medicinal cannabis and migraine, but initial studies indicate that both recreational and medicinal cannabis use can increase the risk of MOH.

This fact sheet was clinically reviewed by Dr Lakshini Gunasekera (BBMed, MD, FRACP)