



### Background

In 2025, Ramadan is expected to start in the first week of March (based on the lunar calendar).

Fasting during Ramadan is one of the five pillars of Islam. Muslims fast from pre-dawn until either sunset or end of twilight. In Canada this year, the fasts will range from 8-12 hours. Fasting typically entails no food, drink, or anything consumed by mouth including medications.

Recent studies have shown that people with migraine who fasted the month of Ramadan had worsening of their migraines compared to Shaaban (the month prior). One study from Kuwait showed an average increase from 6.9 to 10.4 migraine days<sup>1</sup> and another study from Egypt showed an average increase from 3 to 4 migraine days. This second study also showed that most migraines occurred in the first 10 days of Ramadan, and especially so on the first day, with 53% of participants having a migraine on day 1 of fasting.<sup>2</sup> It is felt that the main reasons for this increase are the sudden changes to medications, caffeine, hydration, diet, and sleep. This would also explain why migraines are more common in the first 10 days of the month as your body and brain adapt to these changes.

### Mitigating Strategies

It is essential patients observing Ramadan begin discussions with their physician early. A specialized management plan should be created for patients keeping in mind their lifestyle and co-morbidities. It is important to consider the effects of caffeine withdrawal, sleep disturbance, diet, and dehydration on migraine attacks, and given appropriate ways to deal these problems.

### Taking medications

A discussion with your physician is recommended to schedule medications around fasting times. Typically, daily preventative medications can be taken with the pre-dawn meal. Sedating medications (e.g. Amitriptyline) should be taken at night-time. Twice a day medication would be taken at pre-dawn and iftar (meal to break your fast). It will likely not be possible to take medications 3 times a day. As needed oral medications like NSAIDs, triptans or gepants would break the fast, as would nasal triptan sprays. However, as needed injections (e.g. subcutaneous triptans or ketorolac) would not break your fast.

Any injectable medication (i.e. subcutaneous, intramuscular, or intravenous) would not constitute breaking of the fast and can thus still be used if needed during a fast. This would include all CGRP monoclonal antibodies. If your Botox or nerve block injections fall during Ramadan, this can still be done and would not break your fast. A sphenopalatine ganglion (SPG) block would, however, break your fast.

People with migraine often have headaches triggered by sudden changes to caffeine levels. It is recommended to start a slow wean off caffeine.

A sample schedule for someone who drinks 2 cups of coffee or tea per day:

- Week 1 – alternate 1 cup and 2 cups every day.
- Week 2 – 1 cup per day.
- Week 3 – alternate 1 cup and decaf coffee or caffeine-free teas.
- Week 4 – Decaf coffee or caffeine-free teas alternating with no caffeine at all.

If this entire process is not possible, it is also reasonable to consider some caffeine at your pre-dawn meal.

Remember: Green tea has high amounts of caffeine too!

### Hydration

Make sure to drink plenty of water at your pre-dawn meal, at iftar, and throughout any night vigils/prayers. Avoid sugary drinks like juices and stick to either water or electrolyte drinks.





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### Diet

Many cultures incorporate their favourite foods as part of the Ramadan tradition. Unfortunately, many of these foods include those high in sugars, refined carbohydrates and are often fried and/or heavily processed. Dramatic changes in blood sugar levels can trigger migraines. We recommend avoiding these kinds of foods and trying to eat a more healthy, balanced diet. A preferable diet would include slow-release energy foods (high protein and whole grain carbohydrates) like meat, fish, eggs, nuts, lentils, beans, oats, whole wheat bread and brown rice.

### Sleep

It is common to have dramatically altered sleep schedules during Ramadan. This includes waking early for the pre-dawn meal, napping in the afternoons and staying up late for night vigil/prayer. A sudden change can result in triggering of migraines. We recommend gradually altering your sleep schedule prior to Ramadan to get used to the expected changes.

One way to consider doing this is simply by moving your alarm clock earlier by 5-10 minutes every few days to adapt to earlier waking times and to start incorporating short naps in the afternoon if this is your plan during Ramadan.

### Importance of keeping a headache diary

One can use the Canadian Migraine Tracker (available through the Migraine Canada) to track migraine attacks using this adapted version of the Traffic Light of Headache disability scale<sup>5</sup>.

GREEN=Mild headache, where patient can “GO about their day – continue with fast and utilize conservative measures.

YELLOW= Moderate headache, where patient needs to “Slow Down” – Use conservative measures; if it is still early in the fast and the headache is worsening, you may need to break the fast, take medications and rest.

RED= Severe headache, where patient has to “STOP” – Stop the fast. One should break their fast and take appropriate medications.

It is important to map out migraine days, triggers, and understand if there are any patterns.

### What to do when a migraine occurs during fasting

If you have been prescribed injectable abortive/acute treatments for your migraine, it is best to treat at the earliest sign and this would not break your fast. Oral medications would break your fast.

Otherwise, there are many other tools that can be utilized. Many patients find topical preparations, including peppermint oil over the hairline to be an effective way to dull a migraine attack.

Some will use ice or heat packs over the neck and/or head. There are also nerve stimulators that can be used over the forehead or over the neck. Sleep is always a good treatment for migraine, but not always possible.

If the headache is severe enough and it is unlikely that you will be able to complete the fast despite using these conservative measures, it is permissible to break your fast prematurely with food, hydration, and oral medications. You can always make it up later.

If you are someone who has chronic migraine or daily persistent migraine, it may be worth a discussion with your doctor on whether it is reasonable not to fast until your headaches are under better control. The fasts can then be made up at a time when your headaches are under better control. If you are someone who is likely going to have persistent severe migraines for the foreseeable future, you can instead pay the fidya (compensatory charity). Please consult a local scholar or imam in conjunction with your physician for guidance on more complex scenarios.



RAMADAN KAREEM

### References

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