

# Certain migraine medications may be more effective than ibuprofen

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For many people with migraine, it can be difficult to find a treatment that is effective and reliable, and information on how medications compare to one another is lacking. A new study draws data from nearly

300,000 people using a smartphone app to help people make decisions about their medications. The study found that certain migraine medications like triptans, ergots and anti-emetics may be two to five times more effective than ibuprofen for treating migraine attacks, according to new research published in *Neurology*.

Migraine attacks are characterized by intense throbbing head pain, sensitivity to light and sound, nausea or vomiting. Previous research has shown migraine can also be associated with cognitive issues. All of these symptoms may impact a person's quality of life and productivity.

"There are many treatment options available to those with migraine. However, there is a lack of head-to-head comparisons of the effectiveness of these [treatment options](#)," said study author Chia-Chun Chiang, MD, of the Mayo Clinic in Rochester, Minnesota, and member of the American Academy of Neurology. "These results confirm that triptans should be considered earlier for treating migraine, rather than reserving their use for severe attacks."

For the study, researchers included over 3 million migraine attacks from nearly 300,000 users that were self-reported by people using a [smartphone app](#) during a six-year period. The app allows users to monitor the frequency of migraine attacks, triggers, symptoms and medication effectiveness.

For those [migraine attacks](#), participants entered 4.7 million treatment attempts with various medications into the app. They recorded in the app whether a medication was helpful or not. Researchers then used that information to calculate the effectiveness of each drug compared to ibuprofen.

Researchers looked at a total of 25 medications among seven drug classes. Different dosages of medication and formulas of each

medication were combined in this analysis.

The study found that the top three classes of medications more effective than ibuprofen were triptans, ergots and anti-emetics. Triptans were five times more effective than ibuprofen, ergots were three times more effective and anti-emetics were two and a half times more effective.

When looking at individual medications, the top three were eletriptan which was six times more effective than ibuprofen, zolmitriptan which was five and a half times more effective and sumatriptan which was five times more effective.

Researchers found that when using eletriptan, participants found it helpful 78% of the time. Zolmitriptan was helpful 74% of the time and sumatriptan was helpful 72% of the time. Ibuprofen was helpful 42% of the time.

Researchers also looked at other groups of medication such as acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs other than ibuprofen were 94% more effective than ibuprofen.

Participants found ketorolac helpful 62% of the time, indomethacin was helpful 57% of the time, and diclofenac was helpful 56% of the time. However, acetaminophen was helpful 37% of the time and found to be 17% less effective than ibuprofen when used for treating migraines.

Additionally, a common combination of medications used to treat migraine, aspirin, acetaminophen and caffeine was also evaluated and found to be 69% more effective than [ibuprofen](#).

"For people whose acute migraine medication is not working for them, our hope is that this study shows that there are many alternatives that work for migraine, and we encourage people to talk with their doctors

about how to treat this painful and debilitating condition," said Chiang.

A limitation of the study was evaluations of medications could be influenced by a user's expectations of the [medication](#) or the dosage they took. Another limitation was that newer [migraine](#) medications, gepants and ditans, were not included in the study due to the low amount of data when the study was conducted and lack of availability in many countries.

**More information:** *Neurology* (2023).  
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