



MIGRAINE WORLD SUMMIT

INTERVIEWS WITH WORLD LEADING EXPERTS

TRANSCRIPT



COMMON TRAPS OF CHRONIC MIGRAINE

DEBORAH FRIEDMAN, MD, MPH, FAAN



Introduction (00:04): We may just totally miss the diagnosis because the patient isn't giving us the full story. And a lot of that might be our problem as well because we have to ask, you know, "How many days are you headache free?" So that's one problem. The second is the medication overuse problem. And medication overuse and medication overuse headache are not exactly the same. There are some people that can take medications for other bodily pain that has — and they can take them every day — and it doesn't affect their headaches at all. Whereas people who are taking medication for headache, and I don't know why this happens because the drug doesn't know where it's supposed to go, right? But some of those people will end up making their headaches worse. For other people, medication overuse is just a marker of the severity of their headaches. So they're getting very frequent headaches. So they're taking very frequent symptomatic medication, but they don't have that progression that we see in patients who have medication overuse headache. So for medication overuse headache, we want to hear about frequent medication use. This can be anywhere from acetaminophen or paracetamol, depending on what country you live in, to nonsteroidal anti-inflammatories like ibuprofen, up to opioids, and butalbital, and triptans. And any of those can cause medication overuse.

Carl Cincinnato (01:36): Chronic migraine affects one to two percent of the entire population, not just people with migraine. Each year, around three percent of people with migraine become chronic. The good news is that chronic migraine is reversible. Twenty-six percent of people with chronic migraine go into remission within two years. But what about the rest of us? Some of us have felt trapped in the grip of chronic migraine for decades. Is there hope for this refractory group even after years of attempts and disappointments? To take us through the common traps and hurdles of chronic migraine is Dr. Friedman. Dr. Deborah Friedman is an award-winning neurologist and headache specialist. She's been elected to the Best Doctors in America regularly since 1998, and the US News and World Report top doctors since 2011. Dr. Friedman is also a professor of neurology and neurotherapeutics and ophthalmology at the University of Texas Southwestern Medical Center, where she directs the Headache and Facial Pain Program and the integrated program team for intracranial pressure disorders. She also serves on the board of directors for the American Headache Society. Dr. Friedman, welcome back to the Migraine World Summit.

Dr. Friedman (02:46): Thank you, Carl. It is great to be back here again, and thank you for inviting me.

Carl Cincinnato (02:50): We're going to kick off today talking about chronic migraine. Can we start by explaining what chronic migraine is?

Dr. Friedman (02:56): Sure. So there is an official definition for chronic migraine that was put forth by the International Classification for Headache Disorders, and it requires three months of looking back. And during that three month period, the person needs to basically have headaches more often than not. So it requires at least 15 days of headache per month for three months, and at least half of those days — so at least eight of those days — the ... headaches meet criteria for migraine, either with or without aura. And that just like every other diagnosis, we want to make sure there's not a secondary cause for that. But that's how we make the diagnosis of chronic migraine.

Carl Cincinnato (03:40): Why does migraine become chronic?



Dr. Friedman (03:43): Well, there are some risk factors that we know about that might contribute to migraine becoming chronic. And those can include, first of all, just having a high frequency of migraine to begin with; maybe not quite meeting the threshold that you need to make an official diagnosis of chronic migraine. But people that are getting a couple of migraines a week, they're at more risk than people who get very infrequent migraine. So the baseline frequency is important. The other really important risk is overuse of acute medications or symptomatic medications. And this is a common trap to get into, and I think we'll be talking about it more in depth later, but it's kind of easy to understand why it happens. People get migraine, it incapacitates them. They're missing out on life events. They take medication for it, which could be over-the-counter or prescription medication, which helps. And after a while they may decide: "Well, you know, I really have to give this presentation today and I can't afford to have a migraine, so I'm just going to take my medications preventively," basically.

Dr. Friedman (04:51): And it leads to this whole vicious cycle of taking pain medications, and then getting more migraine attacks, and it leads to changes in the brain. But at some point many of those people will cross the threshold into chronic migraine. Anxiety and depression can be risk factors. Major life stressors can be risk factors. And then sometimes it just happens, and we really don't know why. There are people who develop migraine that almost from the onset, even in childhood, their headaches are so frequent that they would meet criteria for chronic migraine. And it's not clear why that happens.

Carl Cincinnato (05:28): Apart from the frequency of attacks, how is chronic migraine different to episodic migraine?

Dr. Friedman (05:33): The attacks themselves can be different. So they tend to become longer and stronger, more severe over time. Many people feel that they never really go away. So even after the major pain is gone after an individual attack, often people will have residuals: sensitivity to light, brain fog, sensitivity to noise, things like that. And it's kind of like the migraine never really completely turns off in some people. And there have actually been studies looking at both the structure and the function of the brain in people who have chronic migraine, using all different kinds of methods, actually. So people who have looked at EEG changes measuring brainwaves; people have looked at, it's called electro-magnetoencephalography — which looks at the magnetic fields that are generated by normal brain activity, and it's probably a little more sensitive than EEG; and then some more modern methods as well, like PET scanning and looking at functional connectivity is what we call it — the connections between different areas in the brain. And they all have sort of a common theme, which is that once migraine becomes chronic, the brain, including the surface of the brain, the cortex, and the structures down in the brainstem in the back of the brain, they become more hyperexcitable — meaning that the threshold for triggering another event becomes lower, which kind of explains why people tend to have more and more frequent headaches over time.

Dr. Friedman (07:27): And they have also found that even between attacks, that a lot of these different testing techniques show abnormalities. And the good news is that when people get treated and they revert back to episodic migraine, a lot of the changes go away. But there's definitely a reason in the brain itself. And there are things that occur in the brain that probably are contributing to this whole process. And I would add that the same is true with medication overuse headache: that you can see very similar changes with medication overuse headache that go away when people get off their acute medications and things kind of settle down again.



Carl Cincinnato (08:12): So it sounds like chronic migraine is a very different beast to episodic migraine, where you can have symptoms in between attacks like the brain fog, the fatigue, light sensitivity, perhaps, that doesn't seem like it ever really goes away. Yet it is sort of chronic migraine and a manifestation of chronic migraine itself.

Dr. Friedman (08:30): Absolutely. And there are a lot of people that transition in and out of chronic migraine. So that 15 day-a-month demarcation in a lot of ways is a little arbitrary, because we know that people do float in and out of that 15 day cutoff. And sometimes it gives, I think us as the providers, the false sense of security that we just made somebody better because they happen to have a good month, right. And that really was just part of the natural process. But the — people have looked at disability, migraine-related disability, with what we would call high frequency episodic migraine. So people who haven't quite met that 15 day cutoff, but they're still having, you know, nine to 14 headache days per month, most of them being migraine. And those people have similar levels of migraine related disability to people who have chronic migraine. So even though for research purposes — and we use it in clinical practice — we have that strict definition, but in fact there's probably some give and take on either side of that magic 15 number.

Carl Cincinnato (09:39): So it's a little blurry. And so for the people that are watching that have perhaps nine days of migraine symptoms or migraine attacks a month, they could be on the slippery slope down if they don't have an intervention that's effective.

Dr. Friedman (09:51): Absolutely.

Carl Cincinnato (09:52): What do you see are the common traps that people can fall into with chronic migraine?

Dr. Friedman (09:56): I think that one of the first traps is not realizing that they have it. So it's very common when people think about their headaches, and when they come in and they talk to their doctor about their headaches, they tend to think about their worst headaches, right? So we always ask, "How many headaches are you having? In a month, in a week?" — whatever. And people will tell us about their worst headaches, and they kind of forget about the ones that are milder that they can function through. So it's super important to keep a headache diary. OK. Keeping a calendar makes such a big difference. So that's the first problem.

Dr. Friedman (10:32): We may just totally miss the diagnosis because the patient isn't giving us the full story. And a lot of that might be our problem as well because we have to ask, you know, "How many days are you headache free?" So that's one problem. The second is the medication overuse problem. And medication overuse and medication overuse headache are not exactly the same. There are some people that can take medications for other bodily pain that has — and they can take them every day — and it doesn't affect their headaches at all. Whereas people who are taking medication for headache, and I don't know why this happens because the drug doesn't know where it's supposed to go, right? But some of those people will end up making their headaches worse. For other people, medication overuse is just a marker of the severity of their headaches. So they're getting very frequent headaches. So they're taking very frequent symptomatic medication, but they don't have that progression that we see in patients who have medication overuse headache. So for medication overuse headache, we want to hear about frequent medication use. This can be anywhere from acetaminophen or paracetamol, depending on what country you live in, to



nonsteroidal anti-inflammatories like ibuprofen, up to opioids, and butalbital, and triptans. And any of those can cause medication overuse.

Dr. Friedman (12:03): So we have, again, definitions of what constitutes medication overuse regarding the frequency. And it's done by days; it's not done by tablets, actually. It's done by how many days you're taking, in total, various medications. So for acetaminophen, paracetamol, anti-inflammatories, it's 15 days out of the month — then we start to get worried. For opioids and butalbital, and combination analgesics — which would include medications like acetaminophen with caffeine, right? It doesn't have to be prescription drugs — it's about 10 days out of the month. But there's research that has shown that people who are taking opioids or butalbital even less frequently than that, six or eight days out of the month, may be at risk for developing medication overuse headache. So it's really important, again, to keep track of how much medication you're taking.

Dr. Friedman (13:06): What else? Not getting a good enough acute response. So this starts to ... sounds like it's a total contradiction, right? We want to make sure that when people get a migraine, that they have the appropriate effective medication to take to get rid of the migraine attack and not be doing the medication dance where, "I'll try a little bit of this," and then it didn't work, and, "I'll try a little bit of that," and it didn't work, and just prolonging the agony. So ... it's sometimes hard to balance limiting acute medication with wisely taking acute medication, right. And when it gets to the point where people need a lot of acute medication, it's often a signal that they need to be on a preventive.

Dr. Friedman (13:54): One of the other things that can get people in trouble is not taking their preventives. And we know that this is a common problem. Studies have shown that when we ... when we prescribe something for prevention, particularly the older, oral preventive medications, that the rate of refilling the prescription just drops substantially after the first month. So by the end of the year, fewer than 20% of people are still taking their prescribed medication. And unfortunately, the reason they stop is usually not because it worked. The reason they stop is because they're getting side effects or they didn't give it long enough — this is a common mistake. Or that they just had unrealistic expectations and decided to quit. So that's an important consideration as well. Too much caffeine, which often people don't think about because it's not coming in pill form, can be a risk factor. Or maybe we just got the diagnosis wrong.

Dr. Friedman (14:58): So, when I hear about people that have "chronic migraine," quote unquote, and nothing works for them — and many times people have taken many medications for their chronic migraine ... when they come in and I see this huge list of things and nothing ever worked, then it always makes me wonder, did we miss something? So what could we miss? We could miss hemicrania continua — this is a rare kind of headache. It's kind of what the name sounds like: "hemicranium" means half the head. So it's always on one side of the head. It doesn't have to be the entire side of the head. It could be around the eye, it could be in the back, but it's always at the same side of the head; "continua:" continuous. So there's always something there. Sometimes it can be really kind of low grade, and it's just a nuisance and people don't really think much about it. But from time to time, it will rear its ugly head and produce a headache that sounds much more like migraine. So the pain becomes more severe, it's throbbing, and there might be sensitivity to light and noise. And again, if people don't think about that background pain that's always there, and they just think about their bad episodes, then we can miss the diagnosis. And it's important to know about hemicrania continua because the treatment is totally different than the treatment of chronic migraine. It's diagnosed and treated with a medication called



indomethacin. So, it's pretty easy to imagine taking the whole world of medications, you know, for migraine and never trying indomethacin because we usually don't prescribe it for migraine, when in fact that would have given us the diagnosis. So that's one.

Dr. Friedman (16:39): Low spinal fluid pressure — which I think we can go to another Migraine World Summit interview with yours truly and learn all about it, should you want to do that. But we want to hear about headaches that often just start one day and never go away. They may get worse as the day progresses. They may get worse when the patient is upright, better when they're lying down. And there can be a whole lot of other symptoms that go along with it and it can be kind of difficult to diagnose sometimes. But I find that's a common mimicker.

Carl Cincinnato (17:11): You've covered a whole lot there. So I think just to recap on some of those highlights and give you a rest is the medication use. And I don't think a lot of patients, or a lot of us, understand just how much we can use of a certain treatment when we're trying to treat our attacks on an acute basis. And the challenge is we're almost told to treat whenever you have an attack so that ... you minimize the time that you have with migraine. But at the same time, if you're over a certain limit, then you're going down another sort of pathway that could lead to chronic migraine or rebound overuse headaches. So it's a challenge for patients in that respect. What about people who are taking a preventive medication but still need more than the nine triptans a month? What advice would you give to them?

Dr. Friedman (17:59): One option is to just, if it's possible, increase the dose of the medication that's being used for prevention, assuming that the patient got some benefit to begin with and that they're not having side effects from it. Another option is to add a different preventive that works in a different way, has a different mechanism. So maybe kind of attacking migraine from different fronts, if you will. Or even changing to a completely different preventive medication. Most of the things that we use for migraine, as you know, were never really studied in migraine. They're not FDA approved for migraine. There are a handful of medications that are FDA approved for migraine prevention. And of those, there are some that were studied for chronic migraine, and one that is specifically approved for chronic migraine. So onabotulinumtoxinA, or Botox, is FDA approved for the treatment of chronic migraine. Topiramate was studied in chronic migraine showing effectiveness. And then the newer medications, the CGRP monoclonal antibodies, were also studied in both episodic and chronic migraine — and including in some of the trials, patients who were overusing medications — and showed that many of these people got benefit from them.

Carl Cincinnato (19:20): What about adding treatments that are complementary or different modalities like neuromodulation devices or even lifestyle behavioral factors? Are those strategies that can help augment the preventive medication?

Dr. Friedman (19:35): Sure. So let's go to lifestyle first; looking at caffeine, looking at triggers. And triggers to me is sort of a slippery slope topic, because I think it's first of all, easy to blame yourself, and probably easy for others to blame you for things that you have no control over. And the whole trigger topic is a little controversial. Certainly there are people that have various triggers. But I think especially dietary triggers, I think sometimes people just get so worked up over this that it becomes a sort of a self-defeating thing. But if you can identify a trigger, avoiding the trigger is good. Getting adequate sleep every night and good sleep every night. Make sure you don't have sleep apnea, if you're at risk for sleep apnea. Try to go to sleep around the same time, wake up around the same time every day.



Dr. Friedman (20:32): Keep well hydrated, eat healthy food, eat regular meals, get some exercise, all those things that we know promote good health in general are very helpful for migraine. The devices can be very helpful too, and they are really beneficial for a lot of people, and preferred by a lot of people because it's not a drug. So there are different stimulators that are on the market. There are stimulators that work on the forehead and they stimulate the nerves that supply sensation to the forehead. There's a stimulator that works at the neck. There are stimulators that work on the arm; they're applied to the arm even. And many people enjoy using those, and they ... most of them can be used either acutely or preventively. They're just different strategies in the stimulation process. So those are options. And then natural things: Probably the best that are studied are vitamin B-2, riboflavin, magnesium, coenzyme Q10 are probably the ones that we rely on the most.

Carl Cincinnato (21:42): So it sounds like there are a lot of options that you have in the toolkit that you can add to your preventive medication to help combat chronic migraine.

Dr. Friedman (21:51): Yes, absolutely. And you know, everybody with chronic migraine is different, and some people have other comorbidities, that we have to think about, that may be contributing or may be a result of having chronic migraine — anxiety, depression. I think these two really go hand in hand and often making the migraine better makes the anxiety and the depression better, and vice versa. Bipolar disorder, and asthma, and epilepsy and there're a lot of things that probably somebody else was talking about on the Migraine World Summit as being part of migraine. But addressing what we call co-morbid or coexisting conditions, can often be very helpful, too.

Carl Cincinnato (22:35): Let's talk about some of those coexisting or comorbid conditions that feature with chronic migraine. Does the occurrence of these comorbidities, does that increase with the likelihood — or does the likelihood of those increase with chronic migraine? Does chronic migraine bring out these conditions?

Dr. Friedman (22:53): Well, some of them it might, but others it probably doesn't. I'm not sure that chronic migraine is going to make asthma worse. But chronic migraine can certainly contribute to worsening anxiety and depression and sleep problems. And a lot of the things that we try to address, in a lot of ways, it makes it more difficult just because a patient has chronic migraine. And the whole ... the light sensitivity and having to make accommodations at work because of that. And, it just makes the situation very complicated. It's not impossible, but it is complicated and it takes a while to work through it all.

Carl Cincinnato (23:35): So once we address the number of treatments that we're taking so that we are not at risk of medication overuse or medication overuse headache — which can differ and can occur from over-the-counter medications by just buying it in the grocery store versus triptans and even opioids, which you only need a couple during the month, which can then lead to medication overuse. If we've addressed that, and we've tried all of these treatments — we've tried all the neuromodulation devices, we're doing all those lifestyle things to the best we can, we're taking our preventives on a regular basis — and we're still struggling with chronic migraine, does it come down to the diagnosis?

Dr. Friedman (24:14): Sometimes it does come down to the diagnosis. And I will also add that sometimes to try to break the cycle, we will sometimes hospitalize people — so that can be an option as well — and use intravenous medications like dihydroergotamine and perhaps intravenous lidocaine. Some people use intravenous ketamine and other things that



have a little more punch to them than what we can do as an outpatient, to try to get the pain under control, as well as sometimes help people get off their overused medications, because that's not an easy thing to do.

Carl Cincinnato (24:51): Yes. It's a bit of a trap, right? Because if you're treating an acute attack and you're taking the medications, they may help a little bit. They may not help completely. The attack causes you to miss out on your obligations if you're at work or if you've got commitments. That causes additional stress and anxiety ...

Dr. Friedman (25:07): ... you take more meds ...

Carl Cincinnato (25:07): You're taking more medications and it becomes this sort of downward spiral. And it's sort of a self-fulfilling prophecy triggered by the attacks and now maintained by the attacks.

Dr. Friedman (25:17): Right. And it often surprises me when I'm asking patients about their acute medications, and I ask, "Does it work?" And most people, a lot of people, say it really doesn't do much. Right? And it becomes a habit over time, that causes more harm than good, for something that really doesn't work that well anyway.

Carl Cincinnato (25:38): So should we be settling with medications that aren't effective in treating an acute attack? What's the benchmark for a successful treatment?

Dr. Friedman (25:45): Well, the industry standard, if you will, or the clinical trial standard, is that you should get either pain freedom, hopefully, or significant pain relief by two hours after taking it.

Carl Cincinnato (26:01): That's a pretty good goal. I think most people would love to have it straight away, but even still within two hours, that's a pretty ...

Dr. Friedman (26:08): And, take it early.

Carl Cincinnato (26:09): Does the timing of when you take the acute medication matter?

Dr. Friedman (26:13): Absolutely. So with maybe the exception of dihydroergotamine, which can work at any time (but it has to be given by injection, pretty much), most of the other medications should be taken early. And we want to interrupt the process of an individual migraine attack before the changes during the attack occur in the brain itself, which is called central sensitization. And that happens about an hour or so after the migraine starts. So, if people can pay attention to maybe the warning signs that they're getting a migraine. And, if they have aura, that makes it a little easier to know it's coming. But I think most people with migraine are pretty good at realizing when their migraine starts, and the earlier the medication is taken in the process, the better it works. Again, dual-edged sword because we don't want to overuse it.

Dr. Friedman (27:11): Sometimes combining treatments can be helpful. So taking a triptan with an anti-inflammatory medication and something for nausea — often just one medication is not going to do the trick, and lying down and doing whatever one has to do that's not medication related. And making sure the dose is correct. You know, sumatriptan has been on the market for over 25 years. So we have a lot of experience with it. And to this day, I still hear about some of my colleagues in neurology, and certainly in primary care, that



underdose sumatriptan. The adult dose of sumatriptan is 100 milligrams, not 50, not 25. So if you're not taking enough, it's not going to work, right. Getting the right formulation. So for people that have a lot of nausea, certainly for people who have vomiting, people that wake up with a headache and the train has left the station — they're not going to catch it early. They may need to use a non-oral formulation or even a device. So thinking about suppositories and injections and up the nose intranasal preparations because they don't rely on the gut to be broken down and absorbed into the system; they get into the system by the bloodstream, and they work much better. So people I think should need to be a little open-minded about trying different formulations because a tablet doesn't always work well.

Carl Cincinnato (28:43): One of the things that I've done with my attacks — and I used to have attacks with a lot of anxiety, and I would catastrophize, and the sky was falling. It was: "Oh no, not again. Why me, why do I have this?" — was taking a supplement which I could take an unlimited amount of times because it was literally just vitamins and supplements; and so like a ginger tablet with some magnesium, a bit of riboflavin. And that, for me, would help address the anxiety. It would help calm me down. I'd take a couple of deep breaths, and it would almost physiologically have an impact, and make me less likely to experience an attack. Now whether that was placebo or not, I don't know, but it helped.

Dr. Friedman (29:19): I don't think it matters because it worked, right?

Carl Cincinnato (29:21): Exactly. So that helps. So there are little, I think, tactics that you can employ to help manage your attack.

Dr. Friedman (29:26): And it's like anything else, it's not just migraine. You know, anxiety kind of makes everything worse and it feeds into the whole process. And there is this underlying, I think, concern with people that have migraine as well as other disorders that happen with no rhyme or reason to them, right, at the most inopportune times. You know, "When's this going to happen again? Is this going to mess up my life again?" Right? So I think it's natural.

Carl Cincinnato (29:54): One of the things you said earlier is that up to 80% of people have stopped using a preventive within the first year of being prescribed it. Why do some treatments work for some people and not for others?

Dr. Friedman (30:07): Well, we don't really know, but we assume that the biology of migraine is different in different people. So, for example, we have these new medications, the CGRP monoclonal antibodies that target calcitonin gene-related peptide, which we know is part of the migraine process. But they don't work for everybody. There are some people that just respond beautifully, often people that nothing else worked before have a great response to these medications. And other people, it's just like taking the placebo shot, right? It doesn't do much at all. So clearly the physiology is different from person to person. And that's when talking about attacking migraine from different sides — that's kind of what we're trying to get at. So maybe they're not a serotonin person, maybe they're a CGRP person, or a norepinephrine person, or dopamine person, or one of these other transmitters or chemicals that we know are involved with migraine.

Dr. Friedman (31:14): And I assume that this is ultimately a genetic difference, because ... with few exceptions, there's no one particular gene that causes migraine. It's probably a lot of different genes that interplay with each other that lead to the propensity for migraine. And I think that probably is what explains the differences. I think we're all looking forward to



the day where we can use genetics to really do personalized medicine for migraine, and be able to treat somebody with whatever treatment it is, medication or something else, that's going to be likely to work the first time, right, without having to go through all this trial and error. Hopefully that day will come soon, but it's not here yet.

Carl Cincinnato (32:02): How can we intervene earlier if we're one of those people that are right at the cusp? So we mentioned before the high frequency episodic — so they have nine to 14 days of symptoms a month. What should we be doing now at that point to prevent this downward spiral into chronic migraine?

Dr. Friedman (32:19): I think first of all, being aware of it is the first step. And again, a lot of people, they don't keep track of their migraines and it's not really clear to them where they are on the spectrum. And if it's not clear to them, it's not going to be clear to us, as physicians and providers. But looking at lifestyle modification, really keeping stock of the medications that you take, is ... have you crossed the line or not crossed the line. And then seeing somebody about it. It's much easier to treat episodic migraine than it is to treat chronic migraine. So seeing your primary care doctor or a neurologist or headache specialist, because it's really much better to intervene earlier rather than after this has just become a life-altering, life-controlling, actually, condition.

Carl Cincinnato (33:15): And it sounds like there's a huge role for prevention in whatever capacity that looks like. It may not ... you might say, "Well I don't want to take any medications," or, "I've tried it and I get terrible side effects," but there's still lots of nonmedicinal preventive strategies that you can employ and a lot of things that we can do ourselves.

Dr. Friedman (33:31): Absolutely. You know, including the devices, it's hard to get sick from a device. It's pretty good.

Carl Cincinnato (33:39): Is there hope for someone who has chronic migraine and hasn't responded to anything that they've tried?

Dr. Friedman (33:44): There's definitely hope. So first of all, it's really important to make sure we have the diagnosis right. So we previously talked about high spinal fluid pressure, low spinal fluid pressure, hemicrania continua. There are maybe a couple of other things that we might want to look at. And usually by the time people come to see me, they've already had their brain imaged. But if it hasn't been imaged, it should be, just to make sure there's nothing else going on. But hypnic headache can sometimes be a masquerader.

Dr. Friedman (34:21): Hypnic headache is a very uncommon headache condition. It usually occurs in older people, although there are a handful of cases that have been reported in children, and it's also known as alarm clock headache. So this is a headache that wakes people up from sleep at a very specific time at night. And it can be mild or it can be very severe, and it usually lasts for several hours and then it goes away. And it doesn't have to occur every night, but it can occur most nights. And people are generally headache free during the day when they have hypnic headache. Now there's a masquerader for hypnic headache even, which is medication overuse headache. So sometimes people ... that are taking a lot of symptomatic medications, they'll take medication before they go to sleep. And the medication wears off during sleep, and then they wake up from sleep with a headache. It wakes them up from sleep. And so this can even simulate hypnic headache. So it kind of gets ... the water gets muddy sometimes. But hypnic headache is a possibility.



Dr. Friedman (35:25): And then new daily persistent headache. So this can happen out of the clear, blue sky where somebody either has never had a headache before or they develop a completely different kind of headache that just starts one day and it never goes away. And with new daily persistent headache, we always look for an underlying cause; we find one about half the time. But the headache itself, there's no particular description of it. It can sound like anything. It can sound like migraine, like tension headache, tension-type headache. It can sound like trigeminal neuralgia. Everybody's different. So unlike migraine where the description of a headache is really how we make the diagnosis, with new daily persistent headache, there's no particular description that helps us. But it probably isn't chronic migraine. Chronic migraine doesn't just start out of the clear, blue sky and never go away.

Carl Cincinnato (36:23): So if someone has one of those misdiagnoses, are they likely to respond to other treatments?

Dr. Friedman (36:31): Yes, they probably will because they're all treated differently depending on what the underlying condition is. Every so often I'll hear about patients that have chronic migraine and — back to the triggers. They'll say, "Well, I gave up dairy and all my headaches got better," or something like that. So sometimes lifestyle modification really does make a difference. But I just want to end on a very hopeful note. That, as a provider, we certainly make people ... we help people get better all the time, more often than not. And it is a partnership to work with our patients and have them communicate with us, and really pay attention to what's going on in their own bodies, because they're the best barometers of their own body.

Dr. Friedman (37:17): But there are a lot of things that are in development. There will be new treatments that should be coming out within the next year or two, and others that are in the pipeline to come out after that, that target very specific parts of the migraine process. So I think that there's definitely hope. And one of the ways that you all out there can help us do this better is to advocate, and to become an activist and to kind of get out there and contact policy makers and tell them this is a really common disorder. Chronic migraine affects 10% of people who have migraine and migraine affects 12% of the population. So it's a very common problem and it requires research. And migraine research and headache research in general is, at least in the United States, massively underfunded when you take into account the burden and the number of people who are affected by it. So we, as providers, can't do this ourselves. Patients need to advocate. And I know there are a lot of groups out there that are working on that, and I just encourage people to step up to the plate.

Carl Cincinnato (38:35): Dr. Friedman, thank you for joining us at the Migraine World Summit.

Dr. Friedman (38:38): You are so welcome. Thank you for inviting me.