

## Episode 202: Top 3 Non-Medication Strategies for Managing Migraine

### **Lindsay Weitzel, PhD:**

Hello everyone, and welcome to HeadWise, the videocast and podcast of the National Headache Foundation. I'm Dr. Lindsay Weitzel. I'm the founder of Migraine Nation, and I have a history of chronic and daily migraine that began at the age of four. I'm super excited to tell everyone that I am here today with Dr. Amelia Scott Barrett. Hi, Dr. Barrett, how are you today?

### **Amelia Barrett, MD:**

I am well, thank you. Thanks for having me.

### **Lindsay Weitzel, PhD:**

Thank you for being here. Dr. Barrett is a board-certified neurologist and she is the creator of the Migraine Relief Code, which is an online course for people with migraine. Today, I asked Dr. Barrett to come talk to us and discuss what she sees as the top three most important things that we can do for migraine that are not related to medications.

For any listeners who either are not ready to take medications or who have not yet found medicines that work or who just want to know what else they can do besides taking their medications, we're going to get into some details on the things that are known to work best according to Dr. Barrett today. So we've chosen to go into detail on the most important supplement, which few people know can be used for both prevention and for acute treatment of migraine. Then we have some dietary changes you can make that have some really strong data behind them. And last but not least, we'll be discussing the importance of sleep and certain sleep tricks that really help people who have migraine.

So, Dr. Barrett, let's start with the migraine supplement that has the most data behind it, which is magnesium. Now, before everyone or some people are like, well, we know that, we're going to add some extra stuff that most people have not heard about magnesium.

So first of all, why is magnesium helpful in the prevention of migraine?

### **Amelia Barrett, MD:**

It is mainly because of the effect it has on one of the neurotransmitters in our brain called glutamate. Glutamate is what makes the brain fire. It's what we call an excitatory neurotransmitter. It makes things go. And magnesium has the effect of blocking that. And that's helpful for migraine because glutamate is one of the chemicals that is over firing when we're having migraine.

So magnesium blocks that excitatory neurotransmitter. It helps calm the brain down. So that's really why it's working. And Lindsay, we've got over 200 different studies showing that magnesium is helpful. So, I know a lot of people have tried it and had benefit. Maybe there are some people who tried it and didn't get benefit. But there are so many reasons that that could be happening. I would just encourage people to give it another shot, even if they already have tried it.

**Lindsay Weitzel, PhD:**

That is a very good point. So let's start with what dose should we be taking if we're taking it for migraine prevention. Because that possibly is one of the bigger mistakes people may have made, is either the incorrect dose or didn't take it long enough before giving up.

**Amelia Barrett, MD:**

And side effects too. You're so right, all of those things can get in the way. I recommend 400 to 500mg at night of a chelated form of magnesium. And all that chelated means is that magnesium ion is bound to something. And the something that people tend to tolerate the best is glycinate or bisglycinate. Sometimes it's a slightly different variant called that. And part of the reason is that glycine is just an amino acid. It's a protein. It's lunch. And your body absorbs that really well. So your body reaches out, grabs that molecule, brings it into your system. And that's the most important step in the process is just getting it absorbed.

A lot of the other forms of magnesium where it's magnesium and then another word that, like citrate in particular is one that a lot of people take, they are not as well absorbed. So I think one problem that people have sometimes is they'll start some magnesium. They might get some GI side effects, loose stools, things like that, and then they give up on it. And that's super common. And you really just have to cut your dose back down. Maybe give that a week or two or three on that lower dose and then slowly ease it back up until you're getting to that 400 to 500mg at night before bed.

**Lindsay Weitzel, PhD:**

And how long should people take magnesium before they expect to see an effect? Because I'm sure some people take it for a while and stop if it's not helping.

**Amelia Barrett, MD:**

Which is totally natural. You change one thing, and you think I should see a benefit from this thing. And I think that there are two problems with that. Number one, it's going to take a couple of months, most likely. Not always, but we are usually so deficient in magnesium that it takes a couple of months to really get those magnesium stores in the brain up to where they need to be so that they're there working for you, helping your brain function the way it was meant to.

And I think the other thing to keep in mind is you may well be deficient in magnesium. You might take it and you're fixing that magnesium deficiency, but you're not seeing a benefit because you've got ten other things going on under the surface that you didn't know about. And so it's those other things that are really driving those persistent headaches. So it's not so much that the magnesium didn't work, it's just that magnesium alone wasn't enough to take your headaches away to the point where you would notice it.

**Lindsay Weitzel, PhD:**

So you also talk about using magnesium for the acute treatment of migraine. Can you go into that a little bit?

**Amelia Barrett, MD:**

Absolutely. And I think this is an underused tool for those of us who are at home. And there's always this dilemma. I've got a migraine. I've got a pill. It sometimes works, but I can only take that pill twice a week or I'm going to go into rebound. So do I use the pill now or do I? Is this headache going to go away on its own or do I save my pill for later in the week when it might be worse.

There's always a dilemma about what to do. So I think the solution in that circumstance is just to take magnesium. You cannot go into rebound from magnesium. The worst that will happen is maybe you get some side effects from it.

And there are 5 or 10 studies showing that fairly large doses of magnesium can be a good rescue. They can be a good alternative to a pill or an adjunct to a pill. You can take it along with a pill and to try to boost the benefit that you're getting from it. And so in that circumstance, the dose that we think usually does the job is 1000mg.

Now that is a lot of pills I know. When you're nauseated or maybe vomiting from your migraines, I usually recommend just going with a liquid form or a powder form. Still try to get that glycinate though. I know they're hard to find, but they are out there and take about 1000mg of that, along with some kind of fluids with a little bit of salt and sugar in it. And that way that can be more effective than people realize. I think is really underrated.

**Lindsay Weitzel, PhD:**

And I use that even for kids. The liquid form is so much easier. They tell you to give kids these kind of high doses of magnesium when they have migraine. And then you go find the gummy form or something that they're able to take, and it's like you're giving them a whole load of gummies. And so the liquid form is actually great for kids too. What about IV magnesium?

**Amelia Barrett, MD:**

Pretty good data on IV magnesium. And guys, when you go into the emergency room or an IV bar or wherever you go to get your IVs, you want to ask them to give it to you rapidly. You don't want one of these things where they're dripping in your magnesium over two hours. Because what we know is it's that peak dose of the magnesium. That's where the magic is, so you want them to get it into you pretty fast. So when you go in, you're asking for 1000mg just like if you were doing it at home. Obviously it's going to get into you faster by IV. And if you're having vomiting, you might not be able to keep anything down. Not even a fluid form of magnesium.

So you need that IV. So you want 1000mg. The glycinate form doesn't matter. It's not being absorbed through your stomach. It doesn't matter what form they give you. Totally doesn't matter. Whatever they have is fine. So you want 1000mg and you want them to give it to pretty fast. You don't want to slow drip like just an IV push is what we call it.

**Amelia Barrett, MD:**

So let's move on to dietary changes that have data behind them and have been shown to prevent migraine. So what do you feel is the one with the most data that does the best job?

**Amelia Barrett, MD:**

Oh my gosh. I feel like diet choices in migraine are so challenging, don't you? I think so much conflicting information is out there, so many different opinions about what diet works, what food triggers are, how we're supposed to handle this. So I'm really just going to go back to the data. There was a fantastic study published in the British Medical Journal in May of 2021, and it showed that if you eat fish every day and swap out your oils, then you can cut headaches down from 16 days a month down to 9 days a month.

That is profound, with a very simple dietary intervention. And it was a well-run study. And I really love this data. So I think that it gives us concrete guidance from the science about how to make choices that are going to actually have an impact.

**Lindsay Weitzel, PhD:**

So why does this work?

**Amelia Barrett, MD:**

I think there are a couple of different ways. So what they're doing in this study is they are increasing omega-3s. And they're doing that by having you eat fish every day. For those of you who are curious, it was 4 to 8 ounces of salmon every day that they gave people in this study. You can use other fish too. It's all high in omega-3s.

And they also changed people's oils. So instead of having people use inflammatory seed oils, things like canola oil, vegetable oil, they switched that out and they gave them a very interesting oil. They gave them of olive oil. I think we've all gotten the memo that that's good for you. It's high in omega-3s, but you can't do high temperature cooking with olive oil. It smokes up your kitchen. That stuff's bad for you. It turns into carcinogens. So what they did is they added macadamia nut oil to it to raise the smoke point so that you could use it for cooking at higher temperatures. And they just said, here, use this for everything. Put it on your salads, cook your food in it. So by doing that they were further increasing omega-3 intake.

And they were also dropping out omega-6s. We do need some omega-6s. We just don't need as many as we get in our modern typical diet. So the reason that it works is we're bumping up those omega-3s and omega-3s are anti-inflammatory. We know that there's an inflammatory component to migraine. It's helping settle down that inflammation.

And also omega-3s are in the lining of every cell in your brain. And if you want your brain to work right it needs all the ingredients. It's like a construction site. If you want to build a brain, you want to build a house, you need all the things to get that construction done.

**Lindsay Weitzel, PhD:**

What are some practical ways? Can you give a couple tips that you give to people who want to implement that? I do know there are other oils. What are some? Because it's a lot of fish. If you're talking to someone who doesn't love fish, in that study they actually ate fish every day. So do you have any practical pointers for people to just begin to implement that type of diet?

**Amelia Barrett, MD:**

Yeah I do. So one of the objections I hear is cost. And I totally get that. There is canned tuna that is low in mercury that you can get at places like Costco. And I think that's a super cost-effective way to do it. You can certainly branch out with other types of fish. Sometimes people are more comfortable eating things like shrimp or other kinds of white fish. If they don't like the taste of salmon, you can get other kinds of canned fish. Canned mackerel is honestly not bad. It's less fishy than canned tuna. We're just not used to eating it, and it's super high in omega-3s.

And I think a second case choice for people who are just never going to eat that much fish, or if they're vegetarian, vegan, you can certainly try some of the fish oils or vegetarian, vegan sources of omegas. But you do need to know that your body only gets a fraction of what you're taking in. So, for example, let's say you want to go with something like flax which does have a lot of the precursor to omega-3 in it. It's ALA. Your body only converts about 10% of that into the parts of the omega-3s that you need though. So that's the DHA and EPA. That's what your brain needs.

And your body has to do a conversion, so it's just not getting much. And there have never been any studies showing that alternatives work the way that fish does. So I think you can try other things, but just know that it's a plan B, and if you don't see results, that could be because it's just not what was studied.

**Lindsay Weitzel, PhD:**

And about how long did people eat this diet before it started to help their migraine?

**Amelia Barrett, MD:**

It started kicking in within weeks. In the study, they had people on it for three months. That's where they were seeing that nearly 50% drop in headaches was at the three-month mark.

**Lindsay Weitzel, PhD:**

So we've covered magnesium. We have covered the high omega-3 diet. Those are two really powerful things that don't involve medications that have been shown to really help migraine. So the next thing we're going to move into that's very powerful is sleep. And I always love this because in my mind I'm like, look, people are getting as much sleep as they can get. So we're going to actually give some of the tips that really are known to help people with migraine. So first though, let's talk about migraine and sleep. What is it that sleep does for the migraine brain?

**Amelia Barrett, MD:**

So sleep. Oh gosh. There's so many things. I think one of the more important things that it does is in the deeper stages of sleep, we have learned that that is basically when the brain does housecleaning. There is a system in the brain called the glymphatic system, and what it's doing is essentially washing all of the things that your brain doesn't need out of the brain. And it only happens during a certain stage of sleep that we tend to get in the early parts of the night, the deep sleep. And so I think that that is one of the more important parts.

On the flip side though, the sleep that we tend to get in the early morning hours is REM sleep or dream sleep. And that's where the brain is doing some emotional processing. It's processing the emotional events that you are struggling with in our waking life. And I think that those issues are often under the surface for those of us with migraine. When there are things going on in our life, when we are stressed, we need that extra time to allow our brain to process those emotions so that it's not going to end up causing migraines during the waking hours.

**Lindsay Weitzel, PhD:**

Or for some people who have bad enough migraine disease in their life, sometimes it is the migraine that's causing the stress and the problem that's affecting your personal relationships, your work. If it's causing you enough trauma, the pain itself, that's something I always like to bring up. So let's talk about some of the tricks to get more or better sleep that you like to talk to people about.

**Amelia Barrett, MD:**

And I think this one that I'm going to share with you is kind of an eye opener for people sometimes. So I feel like people always focus on what time am I going to set my alarm for to wake up in the morning. But what I want you to do instead is focus on what time you need to set your alarm for to go to bed.

And here's why. Let's say you need to get up at 6 to get your kids out the door, get to work, all the things you need to do. You need to count back eight hours. So that's count backwards. That's 10 p.m. because you need to allow eight hours of opportunity for sleep. And I realize you may not be sleeping every minute of that. That's okay. We want eight hours of a sleep opportunity and then subtract out half an hour for you to unwind and set your alarm for that time. So in this example that would be 9:30 at night. That sounds ridiculously early to most people. I know half the time our kids are still at their sporting events at 9:30 at night, so I'm just going to acknowledge that life interferes. I get that.

But for the purposes of this exercise, I think this does a couple of things for you. Number one, it acknowledges that our nervous system needs a little bit of time to unwind. So during that unwind, no screen time, no phones. I mean maybe if you need to check some quick text, that's fine. But don't be watching TV. Don't be watching YouTube videos. Put the phone aside, dim the lights in the room that you're in, turn them mostly off. Do not have any stressful conversations during this time. Things that I think are helpful.

Or maybe take a bubble bath. We know that that helps you sleep because it paradoxically helps drop your core body temperature, which needs to happen in order for you to fall asleep. So that's a good thing to do. Maybe read a book, do some gentle stretching, listen to something, a podcast that's super uplifting and that makes you feel whole and connected and loving, that connects you to your higher self or whatever kind of support that you want to find. I think all of those things are fine. Sometimes meditation can be helpful for people. So there are a lot of different things you can do with that half hour.

But I want to really drive home the point, don't stay up until you're exhausted and then you fall asleep in 12 seconds flat. That's not what we're looking for. We want you to know how to calm your body down. Give yourself that gradual transition into a peaceful, deeper sleep. So that's my number one piece of advice.

Set an alarm for bedtime and hopefully, fingers crossed, your body will wake up at the time you want it to. Fine if you have to set an alarm just to make sure. But in an ideal world, that's what we're looking for. For you to just wake up naturally because your body's done, it doesn't need any more sleep and you are ready to go for your day.

**Lindsay Weitzel, PhD:**

What about using devices to find out how much and what kind of sleep you're actually getting. That's something that I know we have done an episode on before. And the reason it came to mind as you were talking is I have an Oura Ring. And what I learned when I started using my Oura Ring is, as someone who's always in pain and everything pretty much no matter what I do, I am in bed and awake in the middle of the night for two hours.

So if I really want a certain amount of sleep, I know I'm going to have to go start winding down. There's going to be two hours where I am awake. I know this from the device. I'm working on it. I'm trying to find ways to deal with that. But until I improve that, it's just a fact. So do you have a short stint on devices and how to use them to help you sleep?

**Amelia Barrett, MD:**

Absolutely. And I think the example you just gave is perfect because it can show you where you need to focus your attention. So this is a very common pattern, especially for people who have a stress going on in their lives, either from life or from chronic pain. And so maybe it highlights this issue and you may think, okay, so I need some kind of a meditation or sort of a boring book to wake up and read. I need to figure out where I'm going to go in the middle of the night so that I'm not associating my bed with tossing and turning. I need to know not to turn on the lights and wake my brain up. You need to get that information before you can problem solve. So I think that what you just said is incredibly helpful. It's such a common pattern. And people, it can shine a light on it and allow you to find the solutions that work for you.

The other way that I think devices help you and I love devices, is that it can give you metrics that show you if you're improving before you actually have the experience of getting better. Because for so many people, healing takes a much longer than they give it. You might need to focus on your sleep for months, six months, eight months, a year before you start waking up every morning feeling like, wow, I feel incredible and rested and good. You can literally have that much of a sleep debt just from many, many years of being sick with headaches or anything else.

So I think that that's the encouraging thing. If you're really working on it and you're making changes, you're trying so hard, you start to see your sleep metrics improve. You know you're going to feel better at some point, and it's just really motivating. It gives you that little carrot reward and it helps you stay motivated to keep making those changes because it's so easy to give up on lifestyle change isn't it. It is. It is really hard. It's so easy to give up because you're like, I want to be better now. I'm working so hard.

**Lindsay Weitzel, PhD:**

What about melatonin? I know that a lot of people tell their migraine patients to use it. There's sometimes a dose that's given for people with migraine, a max dose, for example. Do you recommend melatonin for people who have trouble falling asleep?

**Amelia Barrett, MD:**

I love melatonin. And part of the reason is that there was a study published showing that a 3mg melatonin tablet worked as well as amitriptyline 25mg for migraine prevention. Now, I prescribed amitriptyline for decades for migraine prevention, and it does have side effects. It causes weight gain, which us gals do not like. And it makes people sleepy. That's what we want. It does reduce migraines. That's awesome. It can also cause some dry mouth, make people feel a little brain foggy the next day. So there are a lot of things that can go along with it. Not everybody gets side effects; that's okay. But I just love it that there's something available without a prescription that is accessible to everybody, that is as effective as a prescription preventive medication. So I like that.

In this study, they used a short acting form. The short acting kind of helps you fall asleep. The longer acting ones help you stay asleep. I think for most of us with migraines, we need the stay asleep variety. We need the longer lasting to help us through the night. Because, like you said, that pattern of waking up in the middle of the night is so common for people with migraines. And we need just a little something on board to help us through.

**Lindsay Weitzel, PhD:**

Well, is there anything you'd like to add before we go today?

**Amelia Barrett, MD:**

I think I just want to say don't give up. I'm sure that there are people listening who are really struggling with their migraines. They feel like nothing they do makes any difference. And I think so many people just give up and they feel like I just have to live this way. I want you to know that is not true. There are huge advances in science and technology that are changing the lives of people with headaches and migraines, and so just please don't give up. Please keep looking.

**Lindsay Weitzel, PhD:**

Thank you so much, Dr. Barrett. And thank you everyone for listening in today. And I hope that everyone heard something that they can use and that eventually helps them. So tune in again for our next episode of HeadWise. Bye bye everyone.