Medication Management

Dr. Ahuja

Everyone. I'm Dr. Ahuja, nice to meet you guys. Thank you for having me. I did put a presentation together that is kind of free-flowing. If you guys have questions as we're going on, just ask. And I tried to present the information in few different forms. So, we got some details about specific medications, but then also talking about some of the broader stuff. So, I work as a child psychiatrist. I also see adults, and a lot of what I do is kind of the lifespan when it comes to medications. So, we'll cover a few different things here. So this is what we're going to be talking about today, what we can do to help kids. A lot of this is focused on autism, but helping kids with behaviors. Why is it difficult to find the right medications? We'll talk about treating specific symptoms instead of focusing on which disorder we're treating. And then we'll have plenty of time for questions at the end.

So, I want to start off throwing this out there. I have no doubt you guys all know what this means, but not everybody does when I present different places. So neurodivergence is this term that's been much more popular now kind of to include the whole spectrum of a lot of different disorders.

That includes autism and ADHD, learning disorders, all of that. So I'll use a few different terms, neurodivergent, neurotypical versus neuroatypical while we're talking. So that means a lot of different things. I know there's a lot of controversy about saying "a person with autism" versus an "autistic person". I have no preference. I will try to switch between the two. I can't promise I will. I usually say "person with autism", but I mean no harm. I try to go back and forth just depending on what people prefer. So, we'll start off talking about what we can do to help kids with autism to cope. There are a lot of different pieces to what we do to help kids.

So first and foremost, is right there in the center, is a lot of the behavioral treatments. So we're working on getting kids to be able to kind of recognize their behaviors, be able to help bring themselves back down when they are upset, and being able to do things like occupational therapy and a lot of the other therapies that can help. You'll see there's obviously support groups and being able to find some good sources of health information that are credible sources of information.

Dietary changes. There is some research looking into different dietary changes. I will quickly say it's not one-size-fits all. There are a lot of families I've talked to who benefit from dietary changes and I've also had a lot of families try it and not see a major difference. So, as long as it's safe and nutritional, I don't think there's any problem with trying different options. Medications is one part of this. So we always like to point out that medications help kids be able to do the therapy. So, I can use medications to help kids be calmer, more focused, less aggressive, less irritable. But the point of the medications is to be able to then connect them with a therapist or group or supports or whatever they need in school or at home, to really be able to make a lot of progress in the behaviors that they're having. And obviously, when in doubt

consult a doctor, which is why I'm here. There you go. So I wanted to throw this out there. A lot of what we talk about when it comes to these groups of kids is Aba-based, which is definitely a very evidence-based form of treatment for kids, is applied behavioral analysis.

There have been some really good studies looking at other options. So CBT, Cognitive Behavioral Therapy, has been shown to help autistic children and adults. They've actually done some really good studies on this and shown it can be helpful. This is usually obviously for kids that are closer to verbal but able to use those communication strategies. Mindfulness has been shown to be really helpful. I think people often skip over this, thinking it's not going to be helpful but it is a lot of what OT's do, is working on basically mindfulness, the same techniques in different ways when they're coming to trying to help with coping skills. And then obviously, behavioral intervention is a big part of it. Radically open DBT, or Dialectical Behavioral Therapy, is a therapy I had just found out about in the last year or two that's really interesting. So Dialectical Behavioral Therapy focuses on mindfulness communication. It's more focused on helping people get through the moment. So we're not going to sit and talk about your past history, or why the symptoms are coming up, but therapists will work with patients to kind of help them in the moment when you're feeling really stressed, what techniques are we going to use to kind of help bring that distress down, and how can we communicate your needs?

So there is a specific spin-off that's called radically open DBT that focuses on kind of radical acceptance, which is really hard to do. So the whole idea is that we're not going to focus on trying to make everything better. We're just going to focus on it is what it is. So it's raining outside. It is raining. There's nothing that we can do about the fact that it's raining. How are we going to deal with the moment instead of kind of getting stuck in the "but why is it raining"? Or "why does it have to be raining" and kind of spiraling. I found a lot of my patients, especially adults on the spectrum, have found this type of therapy to be helpful, along with the cognitive behavioral therapy, where we're less focused on getting into an argument about what is important or what they should be doing, but really focusing on, let's just accept things as they are and we're going to help you kind of bring down the distress. So, I always like to throw that out there. I believe if you Google RO-DBT, there's a website and there's books and all that kind of stuff.

So when we look at symptoms that we're looking at, this is my big thing I'd like to say. We're not obviously looking to cure autism or any of these disorders, but we are looking to improve symptoms. So I have a lot of families ask me "when is it time to consider medications"? So I think of it as three different things. So when it's causing a lot of distress for the patients, the patients are having a really hard time getting through the day. Life is tough for them. That could be a good reason. If it's causing distress for the family. So, obviously the patient might be just fine with whatever he or she's doing, but if it's causing aggression towards her siblings, or the families are not able to get through their normal dinner because the kid is acting out, that also is a reason to think about medications, even if the child themselves doesn't see the issue. And then the last one, and this is an important one I think we don't often think about, is making it easier for our kids to access the public arenas and communities. So much like we talk about least restrictive environment when we talk about special education, I think of it as the same way.

We want all these kids to be out in the community as much as possible, going to the grocery store, being able to go see a movie, being able to get to the park, and whatever activities they can do. So if they're able to stay in control only because they are only at school and at home where everything is very controlled and we are able to manage the behavior that way, that's not great for the long term, right? We want kids to be able to be out there experiencing as much as they can. Families should be able to be out there too. So sometimes that is a reason why we turn to see if medications can be helpful. So, the question of “why is it difficult to find the right medication”? It is really hard. I will say I did include a lot of research towards the end of this. But one thing I will say is that unfortunately for kids, a lot of the research is just not there yet. So we have specifically only two FDA approved medications that are FDA approved to treat irritability in autism. They don't treat autism themselves, but treat the irritability that comes with autism and that's Risperdal and Abilify or aripiprazole and risperidone.

With those medications basically those companies have paid for all of the trials and the effort it goes through to show the FDA that it is effective and safe and useful for irritability. And that's what gets the FDA approval. That does not necessarily mean there are not plenty of other medications that are just as effective, but those specific medications just haven't gone through the number of trials that need to happen for it to be official FDA approval. So, for example, there's a lot of meds that we use for anxiety that are not technically FDA approved for anxiety. There's a lot of other meds that we use generally for other stuff. I always give the example, like metformin for weight loss is not technically used for weight loss, but it is helpful in weight loss. And if it's helpful, it works and it's safe, there's no reason to not use it. So that's one piece of it, is there's not a lot of FDA approved meds that are specific to this population. Most kids that are on the spectrum have a comorbid condition. So depression, anxiety, ADHD are kind of the most common. It kind of comes along with the diagnosis. If the behaviors are above and beyond what we would expect with autism, anxious behaviors that are keeping them from kind of doing what they need to do, depressed symptoms that are keeping them from what we need them to do, that's when we diagnose an additional disorder.

And from a psychiatry standpoint, we're trying to look for, again, the symptoms. Where are we going to step in and be able to help the most to get these kids feeling better? Generally, across the board, patients with ASD tend to be more sensitive to medications. It's not just a myth, it's actually true. I've had some kids do really tiny doses of meds and see a lot of benefit, and we go up just a tiny bit and they can't tolerate it, so that's hard. Also, a lot of my patients need multiple meds to target the symptoms. So that combination of having multiple different disorders that come together and being sensitive to different medications means you end up using tiny baby doses of multiple different meds. So it's not ideal. We would like kids to be on one medication if they can, and we try to take them off if they don't need that med anymore. But in the end, it sometimes works a little bit better to be able to use low doses of different medications that are targeting the symptoms than trying to, what we would normally do, optimize the med to the highest dose that the kids could tolerate with benefit because they won't end up tolerating some of the higher doses.

Communication issues are obviously a huge part of this. It's really difficult. Depending on the kid, they may not be able to tell you if they are having a hard time. I usually will start off asking parents if your kid is

able to express that they're in pain or tell you more details about like, having a headache or stomach upset. Can they actually indicate that they're having a headache or stomach upset? So for a lot of kids, they can't. So that's a very valid worry for parents. I don't want to give my kid something and then not know if it's bothering them. There, what I have found to be most helpful is trying to use objective data. So when I was at Cleveland Clinic, I worked a lot with the Learner School, and actually they taught me a lot about ABA and how to work with a lot of kids. But what was really helpful is we were able to take all of these charts that they were making, and all the data, and they would plot like medication change happened on day one. This is what they look like on day 14. We're able to look back and see what the changes were.

And so I could say, okay, well, aggression improved, but they're sleeping through class, or there's something else that's happening, we can monitor that. And that's kind of our way of getting around the kid themselves, being able to explain to you that they are not tolerating the medication. So that's really, really helpful if they're working with a therapist or in their school, in their special education classroom, if the teachers are able to kind of explain what's happening. And then the fun one, kids do not like medications. Most kids do not like medications. My kids don't like medications. It's not fun to get them to take medications. Luckily, there are tons of different forms. So almost all the meds come in some sort of either liquid that generally tastes really bad and should not be given by itself because kids will not take it again or comes in a tablet that can be crushed. So you can work with your providers to come up with an option that is going to be tolerable. Usually I recommend if we do a liquid to put it in something thick, like a milkshake, whatever it is. One family uses Diet Coke because that's the one thing the kid will never say no to. It sounds like a great idea to me.

So that can be really helpful if you do crush tablets to use something thick. Again, even applesauce sometimes can be a little bit too easy to taste the grainy part of it and the taste the medication. So putting ice cream, like whatever the kid is willing to eat, putting that med into one spoon of that food, if they swallow that one spoon, they can have the rest of it. So another thing we often see is parents will dump it into like a cup of orange juice and then they finish a third of it and now what do we do because they didn't finish the whole thing and all of that kind of stuff. So there are a lot of ways around having a hard time taking medications. I don't think I've yet had a kid absolutely refuse to take meds in the end. I think we got everybody to do it. One kid, we had to use Doritos, so he had whatever the med was and immediately in front of him was a pack of Doritos. And if he took the med, he got the bag of Doritos at school where his teachers could help with behaviors, and then they would hold the Doritos in front of him, and he eventually got used to taking meds. So we have a way to do it eventually.

So I wanted to throw this out there in kind of organizing the way we think about the different symptoms. So we know neurotypical, again, symptoms are a little bit different. Neurotypical anxiety. People think of a kid that's scared, crying, worried, kind of like curl up in a ball in the corner, worried about the dark, worried about something bad happening. And that's kind of what we define as anxiety or what we picture. With mood lability people are usually kind of assuming bipolar disorder, erratic behavior, mood swings, everything changing really quickly. That irritability, that's there, inattention, obviously, difficulty with focus, getting easily distracted, hyperactivity, impulsivity, which is something, I think, that kind of gets pushed

aside, even though that's what causes a lot of issues. So the hyperactivity is a restlessness, not being able to sit still. Impulsivity we describe as doing things without thinking. So, kids in the grocery store, they see a candy they like, they're across the room grabbing the candy before they realized they had the time to think it through. If I grab the candy, I'm going to get in trouble. There's no time in between thinking about it, and they're across the room grabbing it. So they end up getting in trouble all the time, not necessarily completely their fault. If they have no ability to kind of register what's happening and slow down enough to actually recognize I probably should not be doing that. So that can cause a lot of issues.

Nicole Born-Crow (CFK)

A parent asks if neurodivergent includes children with ADHD and anxiety.

Dr. Ahuja

I would use neurodivergent for the ADHD kids. Yeah. And there are a lot of people that actually include anxious kids on that spectrum, too. So I think it's hard because it's a newer term that's only been around for a little time, and now we're not quite sure what to use to define it. On one hand, with autism and ADHD, there's a lot of overlap. So they have a lot of the same issues. Minds work very similarly in a lot of ways, and I would say the same with anxiety. We often say anxious kids were anxious babies, they're going to be anxious teens, they will be anxious parents. Unlike depression, where there usually is an episode, something happened, a lot of stressors, we get depressed, and then we get better. With anxiety, what we see is that's just that person's ability to cope with the situation or response to stress. So anytime this person is responding to stress, it's anxiety. So it also falls into that idea that they perceive the world differently, they think about things differently.

Nicole Born-Crow (CFK)

A parent asks the question, how do I know the difference between my child having attention issues and my child just not being interested in the task?

Dr. Ahuja

I usually will ask what happens when you put something on, like a movie? Like, most kids love movies, so even when they love movies, I can put my son's favorite movie on, and he will not sit on the couch. There's no way he will make it through the whole movie in one position, right? So even in situations where you're giving them the thing that they actually would enjoy, or if a lot of kids, you tell them, if you sit in your chair, I will give you ice cream, and they still can't do it. They're trying, and they just can't. That's where we say it's a little bit different. Obviously, all kids, if they're not interested, usually will kind of walk away from things if don't actually have to do it they will not. But when it's something that's a preferred activity, it's something that they know they're going to get a big reward or they're going to get in big

trouble if they don't follow the rules and it’s still happening, that's when we kind of think it's above and beyond that part. It's a good question, though.

So now we talk about neuroatypical symptoms and how this looks different. So, the most common one I will see is anxiety. Anxiety in kids that are anywhere on this spectrum that we're talking about neurodivergent. It can be scared and worried. It could be a kid say, I'm worried, I'm scared of the dark, that type of thing. It also could be getting stuck. A lot of kids get stuck in repetitive behaviors, repetitive questions. So, for example, I have a kid who will go every night when she's trying to fall asleep, will come downstairs and check on her parents and ask if they're okay, and then go back upstairs and then come back down again, right? She usually does it about 10-12 times in the night, which in itself, if you ask her what she's worried about, she's not worried about anything but the reassurance seeking, I need to make sure everything's okay. They come down there, they feel better for a second. They go back upstairs, they feel worse again, I need to do it again. That is also anxiety, really perseverative behaviors. So even getting stuck on asking the same thing, a lot of kids will not sleep before big events. So they'll say, I'm not worried or stressed.

And I will say, also, most kids don't understand what the word anxiety means. Even worries sometimes is hard. So I'll say, do you feel scared or do you feel really stressed? Like, it's hard to relax. But they'll do okay and then the night before a big event, they're not able to sleep. And that's usually another symptom we see with anxiety. The irritability can also happen if they're pushed or not in control. So, a kid wants things to be a certain way. You didn't do it the way they wanted you to. Now they have a big blow up. Most parent’s kind of naturally focus on the anger outburst, but then we kind of have to look what happened before then. You changed up their schedule, you told them we were going to watch their favorite movie and you switched it at the last minute. And that was unexpected or that wasn't what they wanted. They wanted things to go in a certain order and you didn't do that. And so what we see from an outside standpoint is irritability. But that's also, I think of as anxiety. It's getting stuck on needing to control the situation. Another helpful way I've thought of it is when a parent once described it's like their mind keeps going back to the same thought again and again, even when they try to put it away.

So that mind's going back to, but I wanted to watch the movie. But we can't. But I wanted to watch the movie. That in itself we think of as more rigidity or anxiety. So irritability, mood lability is often not bipolar disorder. It's often a lot of other pieces. And again, what we're looking for here, poor frustration tolerance. So that means a kid has to do something they don't necessarily want to do. Other kids would be okay with it and they're very quickly getting frustrated with the situation and it could be, again, any minor changes. Irritability to me is also being heightened or on edge. So when they're kind of, parents will describe like “I feel like I'm walking on eggshells through the house”, getting really quick to anger and then unable to bring themselves back down, we describe as irritability or mood lability. And then there are kids that just stay irritable throughout the day and there's not a trigger, nobody's bothering them, they're doing the things they want to do, but you just say hi and they're like lashing out. That's just kind of their baseline level, is that they are irritable at baseline, which is really uncomfortable for most kids.

And then inattentive symptoms, hyperactive symptoms, obviously inattentive symptoms are very similar to what we would expect with inattention ADHD type symptoms. One thing I will say is we focus a lot on the lack of attention with ADHD. It's difficulty regulating attention. So it's not always no attention. Sometimes it's too much attention to what we call hyper focusing on the things that they like. So if we think of it as like a kid in the classroom, they need to be listening to what the teacher is saying, but instead their mind is distracted by like the bird outside the window, that type of thing. At the same time, they could be in the classroom and reading their favorite book and then they get so into it they don't even notice the teacher's calling their name. So a lot of times parents will say, well, my kid can focus because they can read for hour, but then they kind of forget the world's there. And that's not being able to regulate that attention is where we have a hard time.

And then the last one, hyperactivity restlessness. Again, this is, again, something that can be held in for a lot of kids. They can get to the school day, especially more anxious kids that also happen to be hyperactive impulsive. They will kind of try to hold it in as much as possible, but then when you're pushing them to leave their preferred interests or hyper focus, that's when we tend to see some of the outbursts happen. So I make a slight distinction between the irritability and the hyperactivity and impulsivity in that irritability doesn't have to be impulsive. It doesn't have to be without thinking. The kid could tell you ahead of time, this is what's going to happen. I actually have a patient who is hilarious, one of my favorite patients, but tells his parents, like, I'm going to have an outburst. He gives them a warning. They've worked on getting a warning. It's a great family, but they've worked on getting to the point where he can give them a warning. They're aware. Everybody knows what to do. They go to their safety plan, but it's not impulsive. He knows exactly what's happening, but he also doesn't know how to deal with it. And so that's what it comes out as. It does not have to be without thinking.

So this is where we look at the treatment. So again, for a lot of patients, they'll ask me more of why, what do we use to treat anxiety? Is this also used to treat depression? Is this also used to treat ADHD, those types of things. And adults can pretty easily link the medication to the disorder. For kids, teenagers, we focus more on the actual symptom that you're trying to treat. So, for example, with anxiety, rigidity, controlling behavior, our go-to is antidepressants, SSRIs, that can help bring down the overall anxiety. Even though those are called anti-depressants, we use them for depression and anxiety, and they can be really helpful and really safe, and really effective, even in younger kids. Alternate options there, gabapentin (Neurontin) is a medication that's actually used for nerve pain, but has found to be really helpful for anxiety at low doses. It can be used at kind of small, big doses. Hydroxyzine is a med that's very similar to, like, a Benadryl. So pediatricians use this all the time as, like a first line for kids who can't sleep. It's another nice option.

You'll see me mention a few different medications that focus on blood pressure. So there's now a lot more research looking at calming down the sympathetic nervous system. So, propranolol is a blood pressure med. We used to use that to treat performance anxiety. Like people who get anxious before speaking, and now can use that actually to even treat, like, panic attacks, panic symptoms. Prazosin (PRAZ-oh-sin) or Prazosin (PRA-zoe-sin) is a medication that we use for nightmares to help decrease the intensity of nightmares. Then for all of these, my general recommendation is that we only increase once every two or

three weeks. So especially with SSRIs, the benefit doesn't come until you've been on med for two or three weeks. So often people will take it for a week. It's not helping. They keep going up on the med, but we are not going to see the benefit until that med has been there for at least two weeks, if not a little bit longer. So we don't want to keep going up on the dose. If the kid could do better at like a lower dose. Again, I'll get into these med classes in a little bit more specifics in just a second.

But we go to the mood lability. These are the standards that we use, is either the class that we call atypical antipsychotics, the Risperdal and Abilify are two of those. Again, it's another awkward kind of misnomer. We call them antipsychotics. They are used to treat psychosis. We use them to treat mood lability. So they're not using it to treat the psychosis in a kid. Mood stabilizers, Depakote and Lamictal. These are old medications we've used for a long time, initially used in bipolar disorder that can also be helpful for mood. So all of these can cause weight gain unfortunately. There's not a good way to tell which kid is going to gain weight or not. I have had some kids gain no weight. I will say a big reason why some of these meds are stopped is weight gain. Because it's dose dependent. There's not a whole lot. That's one of the side effects that does not kind of wear off as you've been taking the medication. On the flip side, when we use these medications, I also have a lot of kids that are underweight, and we can very happily use the med that's going to cause them to gain weight, it increases appetite, so that works out well.

Some of these meds, for example, Risperdone and Abilify, can be used as needed. So regular scheduled doses and then an extra bump of the medication when they need to. And then some of the irritability and mood lability may improve if we're just able to treat the other symptoms. So, for example, for a really anxious kid, if the anxiety is causing the irritability, we're able to treat the anxiety and the irritability is going to come down. We don't have to go to these meds right off the bat. For inattentive symptoms, we use two classes of stimulants and then non-stimulants. So with the stimulants, we generally start with methylphenidates. They have more research that they can be effective in younger kids and tend to be less likely to worsen anxiety. But it's the same as other medications. We don't know which med is going to help which kid. And then if that doesn't work, we move to the amphetamines. If there is a family history, if somebody else in the family has done well with a specific medication, sometimes we'll start there and see if that helps.

If neither of those work or they're not able to tolerate the side effects of those medications, we move to non-stimulant options, for example, like Strattera or atomoxetine. It's a medication that can help with focus, but also help with anxiety a little easier to tolerate and less likely to cause some of these side effects we see with the stimulant medications. With these ones -- with the stimulant medications, and again, we'll get into more detail again in a second, the most likely reason we do stop the medications is side effects. So with stimulant medications that can cause irritability, they can worsen anxiety, decrease appetite, make it harder to sleep. They also don't last that long. So you can work around meal times and do different things to make sure that those symptoms are okay. But if we're stopping it oftentimes it's because the side effects are not something the kid can tolerate and then if it's not effective at a low dose when they're already having side effects, we can't keep going to the higher dose. On the flip side, the great thing about stimulants is they only work when you use them, so you can take them whenever you

need to. So, most families skip at least one, if not both days on the weekend. If they have to do something like church, they'll give the med. If they don't have to do anything that's like where the kid has to sit still, they will give them breaks. So that really can be really helpful. And then the younger the kid or sensitive kids, I usually like to start with the immediate release of short-acting versions. They're only meant to last about 4-6 hours. That way if they have side effects, they're not on it for the whole day. Yeah.

Nicole Born-Crow (CFK)

A parent asked the question, what if my child checks off all the boxes? How do you find the right cocktail to prescribe to a child who has multiple symptoms?

Dr. Ahuja

So one is which symptom is the most distressing? And two, which side effect of the medication do we think they're going to be able to tolerate? So like, if I have a kid that's really underweight and they're also anxious and really hyperactive, I might not start with stimulants. I might try to see if we can target anxiety to bring down the anxiety so that we don't have to use as much of a stimulant. Or I might start with the Risperdal or Abilify as a way of being able to give them a medication that's not going to cause them to lose more weight, maybe stabilize them a little bit. And then again, when you go back to the stimulant medication, you may not need as much.

Nicole Born-Crow (CFK)

A parent asks, how long in between med changes do you wait when you're introducing a new medication?

Dr. Ahuja

Yeah, I usually prefer not to change any more than every two weeks, depending on the medication. If it's like, let's say it's an adult we're starting a stimulant on, then I might say, okay, take this for a week and then bump it up. But generally, if we think of two weeks of time, because two weeks of time, usually you can say, okay, maybe one week they had a really, I don't know, had somebody pass away in the family or something like that, that happened to happen that week and then is this a medication side effect or is this what happened to them? So over two weeks of time, usually we get enough time that we can kind of see what they seem like and then we continue to go up in the same way when we go down. At least two weeks.

I will say at Cleveland Clinic and a lot of other places, they have ADHD clinics where they can safely try different medications every week. So obviously they're monitoring kids, but they're able to give like one dose, the first week, a different dose, the second week, a different med the third week different dose.

And so then we can monitor really quickly which one was the most effective. We picked the one that worked the best and we go with that. But that's also with the kid coming in every week getting checked and so most psychiatrists are not comfortable doing that because we can't see them that often. But yeah, so every two weeks is kind of my standard. If I can wait every two weeks, it's better to wait every two weeks. Alpha Agonists in the hyperactivity-impulsivity category, I will say, again, hyperactivity and impulsivity can benefit from stimulant medications and some of these mood stabilizers we talk about. But Alpha agonists are their own class that are really meant to treat hyperactivity and impulsivity specifically. These are blood pressure medications that have been around for really long time. Very old, relatively easy to tolerate in comparison to Stimulants, Tenex, guanfacine, Intuniv, which is all the same. The generic is guanfacine, brand is Intuniv or Tenex is one of my favorites because it usually tends to be easy to tolerate. Some kids will get sleepy at the beginning, maybe some dry mouth or constipation, but it does not affect appetite.

It may make them tired, but it's not going to cause insomnia for most kids. So it's one of those medications that's a little bit lower risk. It may not also help completely with focus, so they may not be able to focus as well. But some kids are able to be better able to sit in their seat -- less impulsive. And I will also say I feel like these help with anxiety as well. So we have kids that are really anxious, that tend to be a little bit less anxious with the medication. We're calming down the sympathetic nervous system, even if that's not what we're going for. So there's another way we could try to see if that's going to target more than one symptom at a time.

Nicole Born-Crow (CFK)

A parent asked the question, what is an appropriate age to try out a medication like you've been talking about, like Intuniv, for example?

Dr. Ahuja

So, yeah, most psychiatrists start meds in kids around five. Some-- I have had kids that are three or four, but generally kind of five is our standard cut-off because by that point, you were able to see a lot of the behaviors. I will say Tenex and clonidine pediatricians will use even in really little kids. So it's safe to use in really tiny kids, but generally around five or six. Before that usually the main recommendation is starting with behavioral therapy. Unless the behavior is really out of control where there are concerns for safety. But again, these are SSRIs and the Alpha agonists and the stimulants these are all medications that have had good research, even in little kids, but we may use it a little differently. If we're going to start something like the guanfacine or clonidine we're going to use the short-acting version and smallest dose and make sure they tolerate it before we go up, rather than just jumping in with something that's meant to last the whole day, just in case they have a hard time with it.

Nicole Born-Crow (CFK)

A parent asked the question, do blood pressure medications that we're prescribing for ADHD, do they affect a child's blood pressure?

Dr. Ahuja

It does affect their blood pressure. Kids are very resilient. So this is the funny thing, is that they usually, the majority of the time, I don't see any issues. They are blood pressure meds, but we're using really tiny doses that are not really going to help your blood pressure. You would have to go up to higher doses. As long as kids are eating and drinking okay, usually they're fine. I've had one or two kids where they were taking the med and they were fine, and then they went to camp and they were dehydrated or they had the flu and they got sick and then they were dizzy. So we have to be careful about those things, but for the most part, most kids will tolerate it okay. Yeah. Parents always ask me, “how am I supposed to know”? This is a really horrible answer, but if they seem like they're wobbling and they stand up quickly and they look dizzy, then we probably should bring them in because kids blood pressure naturally runs low. So the blood pressure cuffs you get at the store are not going to be small enough to accurately check them. If you're really worried, it's better to go to the pediatrician where they can use, like, a kid cuff to check, because otherwise it's always going to come back as off if you try to use an adult blood pressure cuff. If they're wobbling when they stand up, it's a good time to call your doctor and check in if you should be on that medication.

Okay, so a little bit more details about these different classes. So I'm going to kind of quickly run through. If we think about it now, we're thinking about it more by medication class and not by symptom. So, as we talked about, a lot of these can target multiple different symptoms. So generally, SSRIs as a group, anti-depressant medications that affect serotonin. Side effect wise, we're looking for headaches and stomach upset. Some kids can also have what we call activation. So what that is, is they get really revved up. They get really revved up, really hyper can be irritable, but just like they're just like on a bunch of candy. But that we don't know that that's going to last or not. Sometimes that's very brief. Sometimes it's the medication, and we do have to stop it. But that often happens if it's going to happen within the first few weeks of taking the medication. So we just kind of watch out for that.

I've had some kids where we're able to just even try moving it to morning versus bedtime, and that seems to help. SSRIs -- Also, I usually recommend taking with food because it can cause stomach upset. But of these medications, other than the guanfacine, these are actually the easiest to tolerate. So SSRIs are safe even if the kid accidentally took too much, which is what we're worried about with depression in teens, even in overdose, it's a safe medication. It's much, much less likely to cause any problems. So that's kind of why we, again, can use these fairly safely in little kids. They tend to tolerate it okay. If the kid did not tolerate the SSRI, the next class is SNRI, so that includes WellButrin Effexor, Cymbalta, and all the generic names up there, too. These are meds we usually tend to use in teens. We don't use these in young kids as much. They tend to cause -- are more likely to cause that activation that we see. So Jittery kind of on edge, high energy. Works really well for kids who also have ADHD. And I have had teens that

have a lot of anxiety that do just fine with meds like Wellbutrin, and it still helps, but we're more likely to see that bump in energy level or jitteriness. These meds can increase your heart rate and blood pressure. So that's what we're looking out for.

I should back up and say also, these meds do have a black box warning on them that talks about risk of suicidal thoughts. So if you look closely at most of the psychiatric medications, unfortunately, most of them have this warning. So it's a risk of increased suicidal thoughts. With the medication we obviously monitor for that. It's not an increased risk of attempts. It's an increased risk of thoughts. And whether that's because they were really depressed before and then now they're not so depressed, or if it's causing irritability, if it's causing some of these other symptoms. Obviously, if that happened, I usually tell families, just stop the medication and let me know. You don't have to keep giving it to just be giving the medication. These also, SSRIs are easier to withdraw from. So, for example, Prozac has such a long half-life, some people just stop it when they're stopping it. You don't have to go down slowly. The SNRIs, that second class, can cause withdrawal symptoms if we stop them. So they're a little bit tougher to get off of.

Again, we try to -- very rarely do we use these in younger kids. It's usually teenagers. The atypical antipsychotics like we talked about, Risperdal, Abilify, also includes Seroquel, Quetiapine, Geodon, Zyprexa or linzapine. There's a bunch of other options. Again, weight gain is the biggest issue that we see. It can cause some dry mouth or constipation. Usually if we're stopping the med, I tend to see it's either because the kids are tired and irritable, or it's the weight gain, but I find both of these meds can work really well. If it's a kid on the spectrum I tend to start with Risperdal over Abilify, because you can give as needed doses versus Abilifies once a day. Same thing with kids that have irritability for other reasons. If we think we're going to need extra doses to kind of help with the outbursts, we can use that, and it makes it a little bit easier. With Abilify, it happens to have a really long half-life, so you could give an extra dose and it's not going to do anything that day. You have to kind of let the level build in your system. Mood stabilizers, Depakote and Lamictal. We don't use these as often because we have better options in terms of side-effect profile.

So as much as we complain about Atypical antipsychotics, they're much easier to tolerate than -- some of -- the Depakote and Lamictal, which are older medications. Weight gain, again, is the biggest thing we look out for there and sedation, but they are also good options to try. Stimulant medications we talked about a little bit. I think I covered some of that. So methylphenidates and amphetamines. The only other thing I'll say about that with the Strattera (atomoxetine), it works a lot like an SSRI or SNRI, even closer to an SNRI. It takes a long time for Strattera to work. So unfortunately, we say just generally, stimulants are effective about 60% of the time. Strattera is probably effective about like 30% of the time. It's not always helpful, but if a kid can't tolerate the stimulant, if they can't tolerate some of the other medications, the nice option that they can tend to tolerate side-effect-wise, may be headache or stomach upset. If we're stopping this one, it's usually because it didn't work, not because the kids can't tolerate the med. And then Alpha agonists we talked about guanfacine, clonidine, and the short and long-acting versions of that. If they are sleepy with the medication, most kids tend to get better after the first two weeks. But that's another reason sometimes we do have to stop the meds, which is also on the flip side, why pediatricians are often using these medications specifically for insomnia. So if you have a really little kid that is

struggling with insomnia, clonidine is a very common one that they've used for years to try to help them sleep. It should be there during the nighttime and kind of gone the next day.

So these were some of the questions you guys had submitted, so I'll try to answer them. So the first question was “what other therapies can be done in conjunction with meds for ADHD”? Behavioral therapy is our mainstay and our first step for most kids with ADHD with a new diagnosis, especially under the age of five, younger kids. Parent training is another very effective method and I know that doesn't sound great. The parents need the training, not the kid. People get offended oftentimes when we suggest that, but it's not in any sort of negative, the parent did something wrong. When it's parent training, often the issue is the kid themselves may not be able to learn these skills, so behavioral therapy may not be as effective.

So if we can teach the parents different ways of interacting, you're helping the parents be able to help the kid. This is especially helpful for the really little ages. Like a four-year-old with ADHD will usually do well with behavioral therapy, but if they don't, we've got other options for the parents. Executive functioning coaches is a new thing that I did not know that much about until more recently and they're really awesome. There's a few people here in Cleveland, in Columbus, Cincinnati, different areas. Most of the times it's working more with the teens and adults. But the idea -- executive functioning is planning out tasks, executing tasks. So think of like a kid trying to get to school in the morning and make it there with their backpack and all of their things. That's the focus. And there's a few different things that are helpful. One is if their day is more organized, it's going to go a lot smoother. Two is kids will take a lot more advice from other people than their parents, so they'll listen to the coach. If the coach says, then you should put things in the same spot every time when they think the parents are crazy.

But that's often like the first step is do you have a landing spot for your backpack? Is like step one, but if you said it, they're not going to go with it. Coping Skills and Exercise. Coping skills and relaxation techniques can be really helpful. And then exercise I wanted to throw out there. There's good research that shows 20-30 minutes of exercise, which is basically getting your heart rate up above your normal amount, is enough to improve focus. So for kids that have a hard time with focus, especially when they come home from school if they can come home and run around in circles or jump on the trampoline, do something to get their heart rate up, they may be better, then, able to sit and do stuff after that. So we can use that kind of at the end of the day, there are some kids that like to exercise before they get to school. It's a really helpful way to not only get the energy out, but let them be better able to focus when they do sit down and need to focus.

The next question was about most effective forms of medications to manage aggression and sleep.
So these were some of the ones we had talked about. Guanfacine and clonidine should also be on here, the Alpha agonists that we talked about. Remeron, or Mirtazapine is a med that's been around for a long time that helps with sleep, increases appetite. It works on similar receptors as Zofran. It can help with nausea. That's a nice option, but it does increase appetite. So if it's a kid that already needs to lose weight, this may not be the best option. Trazodone is a very common one that's been around for a really long time that can help us sleep. Hydroxyzine, again, similar to a Benadryl or allergy med, can help. Treating anxiety itself can help kids sleep. So if their anxiety overall is better, they may just sleep better at

night without needing to add something to the bedtime. And then sleep apnea is another huge thing that --we often -- can be hard to pick up in kids. So if they're restless, waking up frequently at night, especially if they wake up with headaches a lot of the times, and obviously if you see them snoring and snoring awake and all of that stuff, it's really important to get checked out for sleep apnea.

That is one of the very common reasons why kids can't focus during the daytime. That's something that we can treat. They often will just take out their tonsils and adenoids, and that improves a lot and makes it a more open airway -- less likely to have sleep apnea. So especially if there's a strong family history, you see the kid kind of constantly moving or again, snoring really loudly at bedtime you can have your pediatrician kind of take a look and see if it would be helpful to look at that. Meds available for kids with anxiety besides SSRIs. So we talked about SSRIs are not helpful. SNRIs are another option that we can try. And then again, this whole idea of calming down the sympathetic nervous system. So propranolol and guanfacine are good options that can be really helpful. None of these have addictive potential, so none of these are going to be a med where the kid's going to build tolerance, they'll get addicted to the medication and we're not going to be able to stop the medication. So that in itself is really helpful. And then the last question was talking about what kind of help is recommended if kids are feeling low about not fitting in or being bullied.

So I think most importantly, the first thing we start with is finding them other groups of kids to hang out with that are kind of targeting their own interest. So, sports are really great because it's like a specific activity. You go there to practice soccer. You don't have to kind of stand with other kids awkwardly if you're really shy. If they're into drama, I know that a lot of schools have like Minecraft groups and different things like that. Finding an activity that your kid loves and then having them do that regularly is going to help their overall self-esteem as well, because they belong to a group. So it matters less what happens with bullies if they have their own group that they belong to. It really builds on self-esteem. Working on communication of what to say to stand up to bullies. Asking them who they think their friends are at school is really helpful. So maybe let's stick around with the kids that are actually your friends, maybe not play as much with the kids that are not your friends.

And then asking for help is huge. As you guys probably know, a lot of teachers do their best. I think they try to pick up on a lot of stuff. There's a lot of kids that will not tell the teacher if it's happening. They don't want to be tattling on a friend, but teachers aren't able to help them. And especially if you're worried it's getting dangerous, we kind of draw that line of, this is when you need to tell the teacher, or this is when you need to tell me. You're not going to get in trouble, but we need to address it. It's not always on the kid. I think before, a lot of people would just say, like, teach him how to be assertive. But depending on the kid, that's not always safe to have them just focus on being assertive to a bully that's trying to hurt them. We want the school to know, we want teachers to step in and be able to help-- I don't remember-- So I will not go through all of this because I probably bored you guys by now, but there are a lot of research studies. I was telling Nicole there's a really great guide she said she could send out later that's made by ACAP, which is our national child psychiatry organization that goes through medications.
So for these ones, these are just also summarized in that same PDF that goes through. These are the ones that actually have specific research studies based on the symptom that we're trying to treat. I didn't

get into repetitive and stereotypical behaviors because often that is, again, anxiety will be kind of thrown under the anxiety realm as well.

Nicole Born-Crow (CFK)

A parent asked the question, do medications in children at a young age change a child's brain?

Dr. Ahuja

Yeah, that's a great question. I think for most of the medications, we would say no, that there's not a lot of change in brain development. The one caveat I would put in there is for stimulant medications. So there's good research that shows a lot of kids that are taking stimulant medications, especially if they're not eating enough, that can affect their overall growth over the long term. So that's something we need to watch out for. What's hard is most kids that have ADHD tend to be on the smaller side at baseline, and then you're not going to take two kids and put one on a stimulant and one never on a stimulant and kind of follow them over time. So, generally what we find is as long as they're eating well, keeping up with their weight, they're not losing weight growth should be the same. But that's one area where we just have to be really careful if they are dropping weight or not maintaining, not staying on the same growth curve, then we may need to pick a different medication.

Nicole Born-Crow (CFK)

The same parent goes on to clarify her question, can medications help to form new neural pathways for children who take meds at a young age?

Dr. Ahuja

Yeah. No, that's a great question. So a lot of these talk about -- when we talk about serotonin, norepinephrine, dopamine -- all of those are neurotransmitters that are kind of like sending messages back and forth with the brain. I don't think we've had any that clearly disrupt the full pathway. And again, that's where the goal is to be able to have the medication be there while the kid is in therapy. So, let's say they have a lot of anxiety and we're treating the anxiety. Ideally they would be in therapy. We'd be working on how to deal with anxiety and after they've been on the SSRI for about a year we try to taper off of it. The recommendation is actually to try to come down off of it and see if they can do okay without it. So the goal is not lifetime, especially for kids, not lifetime use of the medications, but more to stabilize. Try very slowly to see if you can come off of it and then see how they do. And then if they need it, they need it, but that's kind of the general recommendation.

Nicole Born-Crow (CFK)

A parent asks, if my child appears to have both ADHD and anxiety, how do you know which one to address first?

Dr. Ahuja

So, “how do we know if it's ADHD versus anxiety”? I would say, again, similar to what we talked about with the movie. If we put them in a situation where they are completely calm and they're not stressed, and this is not an anxiety provoking situation and they still can't focus, then that's when we say, more likely, ADHD. Anxiety can definitely affect focus. And it comes and goes, depending on how anxious the kid is. So we find situations where they are in their most comfortable where they're actually not anxious and then see, try the same things again. Are they going to be able to focus or not? Depending on if it's a super duper anxious kid, we might start treating anxiety first and then we come back to using the stimulant. If it's kind of an anxious kid. So the interesting thing, and again, that's why it's so hard to say what's going to work for a lot of kids, if we use stimulants and they're better able to get through the school day, they are less anxious. Like if they know they're going to be able to focus, they're not going to get in trouble, they're going to remember their backpack and all that kind of stuff. They're not as anxious because they know they can do that.

And really interestingly, in my private practice, I’ve started working with a lot of women in their thirties to fifties with a new diagnosis of ADHD, which again, I did not see that coming. I did not realize that was going to be a big patient population. But the interesting thing is a lot of those women, I find if we can get the focus under better control, anxiety and depression really improve because they are anxious and depressed because life is really difficult. They're forgetting things all the time. They're worried did they forget something, trying to stay organized, trying to stay on top of everything. And then once that focus improves, now they've already been functioning and working so much harder than everybody else to maintain that same level. And you give them a stimulant and then it's like no big deal. Day-to-day life is easy after that. So, I think that's where it's tough. If we think the kid could tolerate stimulants because a stimulant is more likely to be helpful, we might start there. If we don't think the kid is going to tolerate it, we might try anxiety first or the alpha agonist is another nice option. The Alpha agonist first --another option first --and then we come back to the stimulant so that we might be able to use less of the med when we have to use it. And a lot of kids do get calmer too with stimulants. It's really interesting to watch. You have a lot of parents that will say, like, when I gave my kid caffeine, they calmed down. You wouldn't think so, but they kind of -- it calms down the mind so they can be less anxious, again. with the medication.

Nicole Born-Crow (CFK)

A parent asks the question, what are your thoughts on genetic testing for finding good medication fits?

Dr. Ahuja

Well, yeah, there's two different things there. So one is genetic testing. Genetic testing like their genes and genome, which can be helpful depending on the diagnosis. If we're trying to figure out if the symptoms are part of another syndrome. So if they find like, okay, this kid has a genetic duplication or something different in their genes, that's going to help us kind of determine how they're going to do over the long term.

Pharmacogenomic testing, where we're looking for different ways the body breaks down medications can be helpful, but it's not foolproof. So what the testing is looking for is to see if people are, for example, a rapid metabolizer or a slow metabolizer, that type of thing. They can tell you some of these meds may not be as effective based on genetics, but at the same time, the pharmacogenomic testing itself doesn't know if this is a kid or adult, can't tell the diagnosis, doesn't know if the kid has medical issues. We're really just looking at things like rapid metabolizer or slow metabolizer. So if I've had a kid that's had a lot of different medication side effects that are kind of like unusual or they're just having a really hard time tolerating medications, it can be helpful.

I wouldn't suggest it at baseline. Most insurances don't cover it. I don't remember how much it is now. It probably depends on the company, but it's usually around $200-300 to do the testing. So whether it would be helpful or not is tough and it's not foolproof again. So if there are meds that are like in the red in the testing that work just fine, we kind of ignore the testing because that's not always true. Then that's another reason why we do usually ask what parents and other family members have done well with. That's our kind of our easy way of -- kind of -- assuming their parents both did well on this medication. Let's just start there hoping that they've gotten the same genetics and they're going tolerate the medication just fine. So, I don't know, I hate to ask people to spend that much money to do it, but again, if they've had a lot of medication side effects where we're kind of getting stuck, it can be helpful to get the extra info, but I definitely don't recommend it as a standard, we -- just coming in -- we've never tried meds before and just kind of starting there.

Nicole Born-Crow (CFK)

A parent asks, are there any supplements that you would recommend we try in addition to maybe medication options?

Dr. Ahuja

Yeah, for sure. I'd say the one that probably has the most research is omega-3 fatty acids in ADHD. So high EPA, omega-3 fatty acids. They actually did a really cool study in one of the southern states in a school where they gave half the kids just omega-3 fatty acids gummies just for fun and did not for the other half, and then saw what happened, and the kids that got the gummies were focusing better even if they didn't have ADHD. They kind of gave it without knowing the diagnosis. So those can be really helpful. You usually want to do high EPA, EPA higher than DHA. Folic acid or folinic acid, depending on

the person, has been shown to help with depression and mood. So that can be helpful, especially in Cleveland vitamin D is probably one of the most common vitamin deficiencies that we see and it's also safe to take. So I don't know if my vitamin D has ever been at a normal level living in Ohio most of my life. So that's a nice option that we can use, especially for some people who do have seasonal symptoms. That's something we just don't get enough of during the wintertime.

There's some research into different types of foods. So like I said, gluten-free, casein-free diets, depending on the person. Some kids are specifically sensitive to red dye 40, but it's not all kids. So there are some kids that will eat that and get really, really hyper, but not every kid. So there's that. I'm trying to think if there's anything else. Those are the big ones I can think of, but the general multivitamin is obviously helpful. But I think those are kind of simple options that you can use. A lot of the other ones are there, but they haven't had enough research, enough time for us to say they definitely work. There's one that's like a broccoli extract of some sort, and I can't remember what the name of it is, but you take it as a tablet, not as a vegetable, but it's supposed to be helpful. There's a lot of them, I don't doubt that they're not helpful, but we just don't have enough research to say across the board, it's for everybody, it's helpful.

So if you do that -- I do recommend -- if I find the website, I'll send it to you again because I can't think of what the name is right off the bat. But there's a website where you can actually look up the different supplements based on there's an organization that's gone in and kind of figured out what is in each supplement based on the company. This company that makes this supplement said these are the ingredients and this is what's actually in it. So that's another thing where we can't recommend supplements. It's not FDA approved, there's no regulation of supplements. They could be putting anything in it. We don't have a good way of knowing what it is. But definitely those different options can be helpful. And if we're going to try it, I just recommend trying to do it like we do with meds. Don't change any faster than every two weeks. Preferably do like three months at a time to make sure it's in the kid’s system, and then you could always try stopping if you want to try it that way, but not like every week adding a different option and then trying to figure out which one actually helped. In the end, it gets really complicated.

Nicole Born-Crow (CFK)

And one final question, a parent asks, how does puberty effect medication and will changes need to be made once a child starts puberty?

Dr. Ahuja

Unfortunately, I would say there's a huge change and, sorry, for parents that are right at that age. And interesting thing is for example, for girls, the first period is usually 11-12. We do start to see mood swings even before they actually start their periods. So you start to see like a monthly cycle. With boys a lot of times it's an increase in testosterone that can increase irritability and aggression. So there are changes. We sometimes do have to change medications. That's another hard one because it's like, is this teenager, is this just puberty or is this actually something that needs to be adjusted? But I would say it's the same thing, if it's causing them distress, if it's causing the family distress we might have to look at adjusting

things. But yes, unfortunately, irritability tends to go up, aggression, mood lability, all of that happens with teenagers. And for girls, I do think it's really helpful to track periods. So even if you may not want to immediately put your child on birth control or something like that, but if we know that their cycle becomes regular, you can kind of help them try to prepare for, okay, it looks like it's going to be your cycle soon. What could we do? What could we be aware of? Kind of prep ahead of time so that it's not like -- oftentimes we'll have a huge outburst and then we talk about in the office and find out, like, oh yeah, I guess you're right, they did have a period right around that time. If we can predict it, it's a lot easier to help kids through it. Like, this is going to be a rough few days, the next couple of days. I wish there were an easier one for boys, but I don't think there's an easy equivalent, unfortunately.