Dr. David Stukus: Great. Now, before we discuss important information surrounding asthma and allergies, what is your favorite part of the holiday season?

Dr. Mitch Grayson: Probably when it's over. No, I enjoy-- I enjoy being able to get together with family and friends, and all the fun associated with that. I'm not sure I enjoy, so much, the buying gifts and all that, although I used to, when I was younger.

Dr. David Stukus: It's certainly a busy time for all of us. But even more importantly, what is your favorite type of holiday cookie or treat?
Dr. Mitch Grayson: You know, I try not to have too many treats during the holidays, but if I have to have a treat, I actually like these great bars my wife makes. They're called Nanaimo bars. I don't really know what's in them, because I don't cook, but they're awesome.

Dr. David Stukus: Okay. Is it more of a chocolate-y, sweet type of a--

Dr. Mitch Grayson: Yeah, it's like a chocolate-y raspberry, or berry something, I don’t-- my wife will kill me if she hears this. I don't know what's actually in them, but they're really good.

Dr. David Stukus: Great, well, thank you for sharing that. It sounds delicious. Okay. Now, for our listeners, let's start with some basics, to make sure that everybody's on the same page. Can you describe for us, the symptoms that go along with asthma and allergic rhinitis?

Dr. Mitch Grayson: Sure. Let's break it up into what the symptoms are of asthma, and the symptoms of allergic rhinitis separately. So allergic rhinitis is really problems with your nose and your eyes. Well, it's allergic rhinoconjunctivitis. So you would have sneezing, runny nose, nasal congestion, your eyes could be itching, they could run. That's more of your allergic rhinitis stuff. Asthma is more of a difficulty with breathing, getting air in and out of your lungs, not so much in the nose but actually in your chest. The best way of explaining that kind of symptoms is if you try and breathe through a straw, which I don't encourage everyone to do, but that inability to sort of be able to get air in and out of your lungs, that's what you have with asthma. So it manifests itself with wheezing, difficulty breathing, not being able to keep up with other kids or other people when you're exercising and running around, and then you can have cough long with that. And actually, you can have cough with both allergic rhinitis and asthma.

Dr. David Stukus: Okay. And in your experience, is-- can these-- both of these conditions manifest both seasonally or throughout the year?

Dr. Mitch Grayson: Yeah. So they both can happen throughout the year, what we would call perennial disease, or you could have it just seasonally, say if you were just allergic to ragweed, just in the ragweed season. And both of these diseases can occur together, or they could be separate.

Dr. David Stukus: And in general, how can someone with asthma best maintain control over their symptoms?

Dr. Mitch Grayson: Well, I-- the key thing with someone with asthma is that you really should not have any symptoms, and if you are having any, you really should see your doctor. There are medications that are available, that will help treat asthma, especially-- we have two different types of medications we use. One is called a reliever, and one is called a controller. The reliever medication, often it's albuterol, it's something that's used acutely, when you're having symptoms. But if you need that kind of medicine, then you need to be on a controller medicine, and your doctor needs to give you this other medicine that you take every day, to keep your symptoms in control. The other thing to do, if you have asthma, and I think this'll be relevant when we talk about-- more about holiday-related stuff, is to try and avoid being in
situations where you’re exposed to triggers. So knowing your triggers and then avoiding them is an additional piece to that.

**Dr. David Stukus:** So it sounds like, for anybody who really has persistent and recurrent symptoms, or even severe flare-ups of their asthma, that they would benefit from using a daily controller medicine.

**Dr. Mitch Grayson:** Absolutely. And my general rule of thumb is, if you need that reliever more than two times per week, you should be on a controller medication. Honestly, if you’ve hit the emergency room or the urgent care with asthma symptoms once in the year, I think you should be on a controller medication.

**Dr. David Stukus:** And that segues nicely to our next question. And we know that asthma symptoms can really occur at any time, and we’ll talk more about triggers in a few moments. And nobody really wants to miss out on the holiday season, when they’re visiting with friends and relatives, and trying to have a good time. But what are some of the indications that somebody with asthma should call their doctor or seek evaluation at a healthcare facility?

**Dr. Mitch Grayson:** Well, obviously, if you’re requiring that reliever medication more than once or twice a week, you need to seek medical attention. If you feel that you can’t breathe, if it’s not-- if you have the reliever medication and it’s not working, are clearly indications that you need to see medical attention immediately. If you find that you’re waking up at night short of breath, or needing your reliever, again, that’s a symptom that your asthma is not under control, and you need better medication. And then, if you’re not-- if you were able, let’s say, to exercise, and now you’re not able to exercise because either you’re getting short of breath or your coughing or whatever, that would be another indication, I would say, you need to see your doctor. So anything that sort of takes away from being able to live your life the way you normally live your life would suggest that your asthma is getting worse. Now, if you’ve never been evaluated for your asthma, realistically, people with asthma should be able to live normal lives. So if you’re not able to do what everybody else around you does, that-- because of problems with breathing, that would be an indication that you should also see your provider, and get looked at for whether or not you have asthma, or whether your asthma is under control or not.

**Dr. David Stukus:** And for people with asthma that feel that they’re under good control and aren’t having frequent symptoms, should they still see their medical provider on a regular basis?

**Dr. Mitch Grayson:** Oh, absolutely. You have to remember, the reason why they’re not have symptoms is because they’re being treated. We don’t have a treatment for asthma, unfortunately, that makes it go away. So what we have is treatments that will control your asthma, and that’s why we talk about asthma control, but we don’t have that magic bullet that we can give you, and your asthma just goes away and you don’t have the disease anymore. So for people that are being treated with a controller and not having any symptoms, that’s great, but you do want to follow up with your doctor annually, or more frequently, depending on the severity of your asthma, and you negotiate that with your provider, so that you are on the right dose of that controller medication, you know, not getting too much or too little, and your asthma remains under control.
Dr. David Stukus: Okay. And so switching gears back to allergic rhinitis, can you touch upon some of the main stays of treatment for people who have either season or year-round allergies?

Dr. Mitch Grayson: Sure. So, when we talk about the nasal symptoms, and nasal allergies, the mainstay of treatment amounts to a couple of things. The first thing is, obviously, avoidance. So if you know you’re allergic to something and you don’t get exposed to it, and it is something that you can avoid, then you tend not to have allergic disease, and so allergic rhinitis, in particular, tends to be better in those situations. When that’s not enough, we then usually use an antihistamine, and usually we use a non-sedating antihistamine, with or without a nasal steroid. And that’s usually the mainstay of the pharmacotherapy of allergic rhinitis. Now, if you see an allergist, the next step up we would use is allergy shots, or what we call immunotherapy. And that is amounting to giving people injections of the things to which they’re allergic, slowly building it up so they don’t have a reaction. And we find that if we do that, after about a year, your allergic rhinitis symptoms may very well go away. In about a third of people they go away completely, and they don’t need these other medicines, the nasal steroid or the antihistamine. About a third of people get some relief but not complete relief and still need some additional medicine, and about a third of people really don’t get any relief, and we would stop their allergy shots, if that’s the case. The nice thing about allergy shots is that they also will help with asthma, if you have both allergic rhinitis and asthma. They may help with asthma on their own, although the data for that are not as clean or clear. And there is some thought that, over time, with allergy shots, if you’ve treated people for three to five years and you stop, that they’ll continue to get benefit from the allergy shots, beyond that. So that’s sort of the paradigm with how we treat allergic rhinitis. But again, we start with the idea of avoiding the things that are your triggers. We then talk about the available pharmacologic therapies, which would be the antihistamine and the nasal steroid. And then, beyond that, can we turn off this disease, and that’s when we go to the allergy shots.

Dr. David Stukus: And you mentioned the role of an allergist. Can you just maybe back up a step, and help people better understand-- you know, when should somebody seek evaluation by an allergist? Or when would-- you know, when is allergy testing helpful and indicated?

Dr. Mitch Grayson: So the time when you would want to be seen by an allergist is really a couple of reasons. Number one would be that you want to know what it is that you might be allergic to, and that’s where allergists have the ability to do skin testing, they can evaluate those results, and really give you some idea of what the triggers are that are setting off your disease. I think, in addition to that, any time somebody who has allergic rhinitis, who is not controlled at the level of an antihistamine and a nasal steroid, or feels they want additional evaluation, that would be the time in which I would say it’s worth going to a specialist, in particular an allergist. And then, in the case of asthma, in general, if anyone is on a controller medication and still having any symptoms, if you’re having to go to the urgent care or emergency room, if you’ve been hospitalized for asthma, if you are not still controlled on a low-dose controller medicine, I recommend, at that point, you see an allergist. Again, the point of it is, some of it is to change the pharmacotherapy, but some of it is actually to determine what those triggers are, and find out, oh, maybe the cat that you have in your house is a bad idea. And so that’s where I think the allergists can be very helpful for asthma as well.
Dr. David Stukus: Okay, thank you. Now, you’ve mentioned a couple of times, and there are multiple different medications that we use to treat asthma and allergic rhinitis, and we know that, you know, taking medicine every day, it’s really hard and challenging for most people. Our normal schedules can be thrown way off track over the busy holiday season, for a variety of reasons. How important is it for people to continue their normal medication regimen, if they have asthma and allergies, and do you have any advice to help them?

Dr. Mitch Grayson: Yeah, so I think it is critical that they maintain their regimen, but I agree, it’s very difficult. We don’t live our lives taking drugs twice a day. That’s not how we want to do things. What I tend to tell patients is, one thing we do pretty well with, for whatever reason, is brushing our teeth. And if you can tie your medication times to sort of when you brush your teeth, and leave it-- if you have an inhaler, leave it near your toothbrush, kind of thing, it reminds you to take those-- to take your medicine at the same time you’re brushing your teeth. Or not at the same time, but around the same time. And that way, if you could tie it to the things you do every day, you’re more likely to do it. The other thing people can do now everybody has smartphones, you can always program your smartphone to remind you to do it. There’s-- there are, I think, apps that will actually help you remember to take your medicine. And anything you can do that just sort of keeps that into your daily routine, that’s the key part. Now, it gets hard, as you mentioned, as we get near the holidays and things like that, your routines start to get messed up, you start to have-- go traveling and things like that, so again, you have to work extra hard to remember to do these things. Part of the problem we have, though, with some of the medicines we use, is that not taking them doesn't immediately lead to increased symptoms. And so you can forget to take your medicine for several days, and it might be five days or a week before you start having symptoms. And suddenly you don’t realize that connection between those medicine-- between the medicine you’ve been taking every day and the lack of symptoms. And so all you know is now your symptoms have come back, and you’ve forgotten you’re taking your medicine. So again, I try to tell patients, remember that there’s not that direct correlation. And matter of fact, when you start your medicine again, it may take five to seven days before it starts to prevent those symptoms. And this is-- in asthma we’re talking about controller medicines, and for allergic rhinitis, we’re talking about nasal steroid. And that delay can be a problem, because again, you don’t see the sudden gratification of, oh, I took my medicine and I feel better, and-- or I stopped taking it, and I feel worse. So it is a problem, and again, I just-- being cognizant of it is the most important thing.

Dr. David Stukus: Thank you for highlighting that, I agree, I think that’s an important connection that a lot of people try to make, of if I take this medicine, I should feel the effects immediately. But unfortunately, the medicines we use to control asthma and environmental allergies don’t always work that way. Now, let’s go back to some of the points we talked about earlier in our conversation. What are some common triggers that can make asthma and/or allergies worse, particularly during the holiday season?

Dr. Mitch Grayson: Well, so, the holiday season in general, for most of the country, is not a time when we have pollen. That’s not entirely true for the south, but for most of the US, your pollinating plants are not pollinating now, because it’s below freeezing. And so we really are talking, at this time of the year, with the indoor allergens that people are being exposed to. So those are your furred pets, your cats, your dogs, your mice or rats, if you happen to have them, as well as dust mites. And we could talk individually
about these if you want. And then there's also the risk of exposure to mold, and I'm sure we're going to talk about Christmas trees at some point, because again, you're indoors, you're closing up your house, and so your indoor allergens, you're being exposed to more and more.

**Dr. David Stukus:** Okay, so that's great, to talk about some of the allergic triggers. Are there any other triggers around this time of year that can contribute to worsening asthma or allergy symptoms?

**Dr. Mitch Grayson:** Sure. So, in addition to the-- to the IgE-made allergic triggers, there are things like-- well, they're irritants. So the irritants that people get exposed to-- again, you could get exposed to these any time of the year, but because we're closing up our houses, you're more likely to get that exposure inside, things like perfumes and scents, strong scents, will set off people, not from an allergic reaction, but it's just an irritant reaction. Then we also have people, you know, having fires in their fireplace and things like that, and remember that smoke is a very strong irritant as well. And obviously, if there's someone who's actually smoking, that's going to make it even worse, whether they're smoking a regular cigarette or they're vaping or whatever, you're still getting-- you're still getting release of these things that will irritate people, and people with allergies tend to be irritated at a lower dose than those without.

**Dr. David Stukus:** And you've devoted your research career to better understanding how viral infections, early in life, can lead to the development of allergic conditions. But can you comment a little bit about how viruses in the wintertime can actually make asthma symptoms worse?

**Dr. Mitch Grayson:** Sure, although it's not necessarily right around the holiday time, but viral infections have clearly been associated with exacerbating asthma. And it's important to note, also, that what we're talking about are things like rhinovirus. These are the viruses of the common cold. There's a bunch of other viruses that are similar. And like I just said, the common cold. So if you have allergic rhinitis, you'll notice your symptoms are very similar to that of having a cold. So in addition to asthma symptoms, where a virus can cause your asthma to exacerbate, oftentimes asthma-- not asthma, oftentimes the viral infection will make it cold-like symptoms. You won't know whether it's your-- you're having a cold, or you're having your allergic rhinitis. And in general, what we tend to see is, when you get a viral infection, if you get cold-like symptoms, that's usually in the beginning of the viral infection. Once that starts to wane or go down, usually it's five days-- or five, seven days after the initial viral infection, that's when we start to see people have problems with their asthma. And again, it-- you should have an-- if you have asthma, you should have an asthma action plan. These usually have a green zone, a yellow zone, and a red zone. And often, if you have a cold, you move into that yellow zone, and you start to do whatever additional treatments your provider has asked you to do, trying to avoid actually having the exacerbation due to the viral infection, which like I said, usually those peak seven to ten days after the initial symptoms of the cold.

**Dr. David Stukus:** Okay. Now you mentioned Christmas trees, and I know anybody who goes online, they can see lots of different links to Christmas tree syndrome, and things like that. And we know that there are a lot of people out there with asthma and allergies who report symptoms from exposure to both artificial and live Christmas trees. Tell us, what's going on there? What's really causing their symptoms?
**Dr. Mitch Grayson:** Well, so we do not-- we, as the collective allergy community, do not like live Christmas trees, or for that matter, any other organic material in which you add water and allow mold and fungus to grow while it’s sitting inside your house in the middle of the winter. Sounds pretty, doesn’t it? Part of the problem with live Christmas tree is that-- is just that, you can get mold and fungus growth, and if you’re allergic to mold, that’s going to set you off. There also can be compounds that are released that can cause irritants, if you sort of smell that mold smell, as well, that could also trigger your asthma. So we don’t like that. And the trees themselves can bring pollen in with them that could be stuck on them from wherever they came from, so we don’t like that either. If you are going to use a live tree, we really want you to try and dry it out as much first, before you bring it in, and clean it up as much. But we much prefer fake Christmas trees to live Christmas trees. But fake Christmas trees have their own problems as well. They can have dust, they can have-- you know, depends where you stored them. They can have dust on them. They can also have other irritant effects as well. So they’re not great. If you have to pick between those and-- my favorite, then, is just get a Menorah, but don’t light the candles. See, that way you don’t-- or use electric candles. That way, you don’t have any exposure to any of the irritants or allergens that would be associated with the Christmas trees.

**Dr. David Stukus:** It’s interesting, that’s a great explanation of things, but I didn't hear you mention, actually, the pine tree themselves. So the pine pollen. So why is pine pollen actually not a big trigger for these folks?

**Dr. Mitch Grayson:** Well, so pine pollen is actually very heavy, and it usually falls to the ground. It’s not something that’s going to be that much in the air, and it’s not going to be that much of a problem for them to breathe in.

**Dr. David Stukus:** Okay, so I think that’s a big misconception that’s floating around out there. Now, for those folks who are traveling over the holidays, do you have any tips for people who may be staying at hotels, and what about flying on commercial airplanes?

**Dr. Mitch Grayson:** Yeah, so I-- again, it depends what your triggers are, and you have to be cognizant of what they are. You certainly do not-- so I’ll talk about the hotels first, and then we’ll talk about the planes. You do not want to stay at a hotel that allows-- that is a smoking room, right? Most of the hotels now have non-smoking rooms, or all non-smoking. You really don’t want a room in which somebody smoked, because again, those are the-- that scent, that irritant effect is going to trigger your asthma. If possible, if you’re dust mite-allergic, you’d like to have foam pillows in the hotel room, if you can, so that you’re not being exposed to dust mites. Again, I think it’s-- you know, be cognizant of your environment, and make sure you have your medications, and make sure you have your rescue medications with you as well. And then, what I tell people, if they’re going to go into a environment where they know they’re going to have allergen exposure, I often say, take an antihistamine before you go into that environment, again, 45 minutes to an hour before, if you know that. That’s going to help prevent the allergic response. That’s not going to help you with irritant exposure, but with an allergic response, it would. In terms of flying on airplanes, again, it’s the same kind of rule. You know, obviously people are not smoking on airplanes, or at least they aren’t supposed to be, but you can still be exposed to various different allergens on the plane. There may be service animals that were brought on board, so there’s, you know, dog or cat, or
maybe even peacock, I don't know, on board the plane, that you'd be exposed to. Again, if you know you're going to be exposed to these kind of things, if you could take an antihistamine before. The other thing about airplanes is to remember, sometimes people with sinus disease have problems with the altitude and things like that. So the better controlled you are before you get on the plane, the better you will survive, if you will, the flight, without any significant impact on your allergic disease. And that may mean, in the case of somebody with severe allergic rhinitis, that they take a decongestant before they get on the plane, so that they don't have problems with equalizing as the plane goes up and down. But again, it's all about trying to be preemptive, and know what your environment's going to be like, so that you can take an antihistamine or decongestant if you need to, before you get exposed, but more importantly, that you try and avoid any of that exposure during that traveling time.

Dr. David Stukus: Any recommendations for people, in regards to their medications when flying? Should they keep it with them as they board the plane? Or what are your thoughts on that?

Dr. Mitch Grayson: Yeah, so my feeling on medications is that their sort of like lithium batteries, but they're not lithium batteries. But the idea is, I would not put them-- don't put them in your checked luggage if you can help it, especially when we're talking about allergic rhinitis and asthma kind of stuff. You want to have them with you. If you have a reaction, you want to be able to get to your reliever medicine. And if you happen to have put it in your checked bag, or it's in the carry-on that got stuck under the plane, that's not going to help you. So this is different than, say, the simvastatin you take every day for your high cholesterol. I don't care if you stick that in the bottom of the plane, because you're not going to need that acutely. But your albuterol is something you might need. So you want to have that with you. Or if you have, you know, food allergies, you want to have your self-injectable Epinephrine with you, so you can get to it if you need it.

Dr. David Stukus: Okay, excellent advice, thank you. Now, we know that there are a lot of people out there that own pets, especially cats and dogs, and we know that having cat or dog allergy is quite prevalent. If somebody who has cat or dog allergies will be visiting a home over the holidays, where those types of pets are present, what can they do to control their symptoms and make their visit more enjoyable?

Dr. Mitch Grayson: Not visit? No, I guess that's not an option. No, so I think, again, it's knowing your environment. So if you know you're pet allergic, and they're going to go into a environment where there's a pet, I would be sure to take an antihistamine before you go there. I would do your best to talk to the host and see if it's possible to keep that furred animal out of whatever room you're going to be in. If you're staying there, you want that animal kept out of that room at all times, and the door closed. The other thing is, if you play with the animal, or you interact with the animal, you know, you can wash your hands, change your clothes, shower, that will reduce your exposure to their-- to the allergen. And then, if you're just visiting, try and limit the amount of time you're in that environment with those furred animals, because again, it's the length of time you're exposed to the allergen that's going to drive your symptoms. And if you can take an antihistamine, be in and be out within an hour, hour and a half, you're probably going to be fine. If you're going to be stuck there for six to eight hours, you're more than likely, by the end of that, going to start having symptoms. And you're going to know that. So you need to be able to get yourself out
of that environment and be in a safe environment. The other option with this, with cats, I will throw this
out, although no one will actually do that-- do this, is that if you do wash a cat regularly, that actually does
reduce the cat allergen. And that would lessen that exposure. Now, obviously, if you're the person with
the allergic disease, you don't want to be the one doing the washing. And more than likely, your host
won't wash their cat. But it's something to offer them, as an alternative, to make it a little bit better for your
environment. The joke though, that the allergists always say, is that when we tell people to wash their cat,
that it works, because the cat runs away, not because it reduces the cat allergen. Or the flip side of it is
that when you tell a patient to get rid of their furred pets, they get rid of their allergist. So those are my two
exciting jokes, to which you're not laughing, so they're obviously not very good. But no, I think the key is
to try and limit your exposure, and make it clear. I mean, this is a life and death-- it's-- for asthma. Allergic
rhinitis, maybe not so much, but for asthma, this is a life and death decision. And you wouldn't put
yourself in a situation where you're at risk, just because. And so I think the host has to understand that.

Dr. David Stukus: So it sounds like knowing your own self, your own triggers and your history, and really
just communicating and preparing ahead of time. Great advice. Now, what about this notion of
hypoallergenic cats and dogs? Can you talk about that for a moment?

Dr. Mitch Grayson: Yeah. That's kind of like hypo-pregnancy. At least you liked that joke. So there are
these ideas that there are certain strains, there are certain-- you can buy, I think, I don't know if they're
still even out on the market, these hypoallergenic animals. That's really a misnomer. The things to which
people are allergic are proteins that the animals make, and even the commercially available-- there was a
cat that was made, that lacked Fel d 1. Well, that's nice, but there's still 40 percent of people are allergic
to cat albumin. And so you really don't have the ability to get an animal that doesn't have allergens. Now,
you could get animals that shed less, and have less allergen that-- theoretically, coming off of them. But
what I tell my patients, in general, is that they're furred pets. There aren't hypoallergenic versions of them.
Treat them all the same, assume the risk is equally great from all of them, and you'll probably be in much
better shape than trying to get something that might shed a little bit less, but still has the allergen there.

Dr. David Stukus: Okay. Now, this has been a great conversation, and we've discussed multiple different
aspects of asthma and environmental allergies, especially those pertaining to the holiday season, but you
know, for our last question here, I'd like to switch gears just a little bit, because as you mentioned, much
of the country, and really the world, this time of the year-- it's colder temperatures outside. And there's a
very specific condition that can cause people to be very uncomfortable if they have it, which is called cold-
induced urticaria, or cold-induced hives. Can you just spend a few moments talking about what that is,
and how it can affect people this time of year?

Dr. Mitch Grayson: Sure. So you know what hives are? Well, obviously, you do. But-- so the red, swollen
welts, kind of thing, that itch. There are people that, when they're exposed to cold, they will get these. And
like you said, it's cold-induced-- we call it cold-induced urticaria. The key thing about them is that it's cold-
induced. And so the number one prevention strategy for this is to not allow exposed skin and things like
that to get cold. And it matters that you keep yourself bundled up, and keep yourself as warm as possible.
I was going to say just move to the Caribbean, but I figured nobody would laugh at that joke, and nobody
did. So anyway, but it is really an issue of exposure. And people who have cold-induced urticaria will
usually be able to tell you that. They'll notice that their problems are worse when it's colder outside, or if they get in a swimming pool and get out of a swimming pool, and as they're-- the water is evaporating, that they would have symptoms there. Again, it's just a simple situation of just know yourself, like you said before, and know what you do. So if you do have that, I would, you know, wear a scarf. Make sure you cover up your skin. Limit the amount of times you're outdoors. Again, stay indoors as much as possible, to keep warm. That's going to limit the amount of times you have your hives. You know, can you use antihistamines to try and block it? Can you use prednisone? People do that. Really, though, the major thing-- again, it's like any of the allergic diseases. If you know what the trigger is, and you can avoid it, that's going to prevent the disease.

Dr. David Stukus: And for those individuals that have cold-induced urticaria and symptoms when they're exposed to cold air, what advice do you have for them, if they want to partake in something like the polar bear plunge, or if they want to go swimming in cold bodies of water?

Dr. Mitch Grayson: I would highly discourage them. There is nothing that I see is a benefit to that. I wouldn't treat them so that they can go jump in there and have hives. Again, I think it's-- you know, knowing what it is. And it's sort of the same thing, if somebody has back asthma that's triggered by cat, saying that they want to go live in a cat house. It's just the wrong thing to do.

Dr. David Stukus: So understanding one's condition, and the factors that may make things even more significant. Great. Now, Dr. Grayson, thank you again for taking the time to be with us today. I think this was a great conversation, and I'm really hopeful that people will benefit, especially with our timely production of this around the holiday season. Before we say goodbye, is there anything else that you'd like to add?

Dr. Mitch Grayson: No, I think that really covers it. I want to thank you, Dr. Stukus, and the Academy, for allowing me to sort of spout off on some of these topics, and I hope this has been of help to the listeners.

Dr. David Stukus: No, I'm sure it will be. And thank you again.

Dr. Mitch Grayson: You're welcome, thank you.

Dr. David Stukus: We hope that you enjoyed listening to today's episode. Please visit www.aaaai.org for show notes and any pertinent links from today's conversation. If you like the show, please take a moment to subscribe to our podcast through iTunes or Google Play, so you can receive new episodes in the future. Thank you again for listening.