The Difference Between Essential Tremor & Parkinson's Transcript

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Introduction to Essential Tremor

One of my main messages really to try and get across to people with essential tremor is that it's not benign. If you have essential trimmer, it is not just shaky hands.

It's a brain problem and I really view that as one of the dangers of essential tremor, that it is associated with degeneration. And we actually see an increased incidence of things like cognitive impairment.

This is Dr. Talks. Welcome to the Parkinson's Solution Summit 2.0. I'm your host, Dr. Ken Charlin. Today I have a special guest, Doctor Drew Christiansen.

He and I had known each other for a few years. Dr Christianson has had his own summit, and i'm sure he'll tell us more about what's going on in his professional world.

We're going to talk about a really important topic today and that is essential tremor and understanding the difference between essential and the tremors associated with Parkinson's disease.

Dr. Christiansen is a family medicine physician and he founded the Living Health Functional Medicine. And we're going to talk a lot more about what he does and all the important information he has to share.

So without further ado, Dr. Drew Christensen, welcome to the Parkinson's Solutions Summit. Thank you. It's good to be here. I'm excited to to here, I think it's a great thing you're doing.

And I'd like to get the message of essential tremor out there because sometimes, you know, they get, it gets confused with Parkinson disease. Well, what is the difference?

Tell me a little bit about essential tremor versus the tremors of Parkinson's.

How Essential Tremor Differs from Parkinson's

So essential tremor is just what it sounds like. So tremour is basically an involuntary movement and in an essential trimmer, it's very rhythmic and usually will be seen in the hands, but it can also be seeing in other parts of the body.

The head, tongue, voice, even legs, different than Parkinson's disease in that essential tremor is what we call an action tremour. And so it takes place when the person is moving.

I've had the essential trimmer for over 45 years And so I know intimately the battles that people face with that. But that action tremor, people will notice it, for example, when they're trying to eat, to use utensils, When they are trying grab a glass and move it to their mouth to take a drink.

we can also have what's called the postural tremor. And that's when we're holding like our arms or our body parts up against gravity, the tremour will manifest in those situations as well.

Then the other distinct part of essential tremors usually that we see is something called intention tremur. That's We're moving towards a target. So like if I move my finger towards the camera, the tremor starts amplifying because I'm moving with intention or moving toward that target, that's another place where we see essential tremors really manifest.

Essential tremor usually will be bilateral, meaning it's on both sides of the body. And in Parkinson's, we usually see a tremour that is at rest and not an action tremur.

not an intentioned trimmer. And with Parkinson's, we'll usually see it start on one side of the body and usually with essential trim, or we will see on both sides of body, although one-side typically will be a little bit worse than the other.

And then in essential trimmer, we don't see some of the things we see with Parkinson's disease, like the rigidity or the stiffness of limbs or body, the postural changes that we with, Parkinson disease.

The change in how someone walks or their gait cadence is, we see that shuffling a lot of times with Parkinson's disease, and we don't see it with essential tremor.

A lot of times with Parkinson's disease, we'll see something called micrographia where the writing seems to over time get smaller and smaller. We really don't see that in essential trimmer.

Although if I might say Dr. Christensen, it is true though, would you agree that people with essential tremor may notice a significant impairment in the quality of their handwriting?

Definitely. Yeah, absolutely. Those of us that were taught to write in cursive. Cursive becomes a huge problem with essential tremor. One of the ways that we like to look at essential trimmers will have patients draw a spiral and it's very typical to see that spiral will get we'll see wavy lines in the spiral and it usually shows up in a pattern.

And we see that same pattern when someone's trying to write, especially curved letters. So we a lot of people with tremor will migrate from writing in cursive to printing because they can just use short little strokes in their writing.

So you said some really great things before we started recording the interview, and I do want to circle back to that. Excuse me. If you step back from the clinical expression of essential tremor versus Parkinson's, the Parkinson folks in the brain and in other tissues in body and the skin, spinal fluid will have accumulation of this abnormally folded insoluble protein known as alpha-synuclein.

Why Essential Tremor Is Not Benign

It's what composes the Lewy bodies of Parkinson, of Lew body dementia, and a multiple system atrophy. And the folks with essential tremor don't have Lewybites, don' have alpha-synuclein, but I think there's a point that is really important here that you can expand on, which is that we talked about the expression benign essential tremer, benine tremorer, and Parkinson's disease is thought of as a degenerative disorder, But in fact, are there dimensions to essential Tremor that have sort of a degenerative component.

So is it not as benign as the word might lead us to believe? Yeah, absolutely. When I was diagnosed with essential tremor, I told by the physician I saw, look, this is called benine essential trimmer.

You have it because your dad had it, and you don't need to worry about it. just live your life and good luck. He gave me a medicine to try. I didn't really like that.

But as I started really diving into the research over the last 20 years, the researchers really expanded over last 10 years. And what we've found by studying cadaver brains of people with essential tremor is that there's actual degeneration of the cerebellum, a part of brain, the Purkinje cells are diminished and they have decreased connections.

And there's also some thoughts that there might be some atrophy in the thalamus part of the brain in people with essential tremor. So I think one of my main messages really to try and get across to people with essential tremor is that it's not benign.

If you have essential trimmer, it is not just shaky hands. It's a brain problem and I really view that as one of the dangers of essential tremor, that it is associated with degeneration.

And we actually see an increased incidence of things like cognitive impairment, even dementia. There's increased

incidents of Parkinson's disease in people with essential trimmer compared to the general population.

We also see hearing loss, balance issues, And then there's increased depression, anxiety, things like that as well. So there are some, there is a degenerative component to essential tremor.

And for most people, it's a progressive disease. It gets worse with time, which also kind of fits into that degeneration classification. So I wear multiple hats in my clinic in the sense that I try to, we have this very patient centered approach.

Some people see me in a capacity as being a general neurologist, as you might any neurologists in that country. They come in, they have some tremor, the associated tremors with Parkinson's disease.

We go through a history, a physical exam. So you pointed out very often a family history. Not always. If I'm not wrong, maybe 70% or so of people with essential tremor have a family history of tremors.

But in the end, in those encounters, it's true that I may say, look, you don't have Parkinson's, at least now, and this appears to be essential. And from what you're showing me and telling me right now maybe the tremour is more of a social issue, less of functional issue in the sense that it's, you know, it can still do everything you want to do.

So while there are medicines that can reduce the severity of the tremor, It's not absolutely critical to take the medicine unless sort of, the bark is worse than the bite.

Or, in other words, that you deem it severe enough that It is worth the cost, The inconvenience, and the potential for side effects. And that medicine is always available.

If we don't do it today, And a year from now, your tremor is worse. Well, then we can do it at that time. Often in my clinic and my general neurology clinic, that's really what people want to hear.

And they're reassured and they go home. But what I'm hearing now from you is that in fact, there are, this is sort of like the shot over the bow. right?

And we're both functional medicine oriented doctors, so we are interested in root causes, but we also interested what are the perpetuators or mediators and ultimately those mediator determine a particular trajectory for a disease and our goal is functional medicines providers in that patient centered approach where people are really looking for root cause as well as You know, they're saying, well, how is, ultimately, How is this going to affect me?

What you're seeing is that we need to really dig in, even if it's relatively benign, and even If it doesn't right now, interfere with quality of life, because the just the, if I understand you correctly, just a presence of essential tremor has a certain implication for the future, potentially.

Yeah, absolutely. I think that's an important message for us to get out. In the past, it's been just what you described. People come in, they're worried about it.

They get reassured that it is not something super bad, and then they get sent on their way. But really, I really think we should be educating them that, look, When you've got shaky hands, that's a sign that the brain is in danger.

And the more proactive we are at taking care of your brain and your overall health, the better off this is going to be for you in the future. If people understand that there's increased risk of dementia, cognitive decline, other things like that, then hopefully they can grasp that maybe there's a little bit more seriousness about this, even though it's not as quote unquote serious as some other neurological diseases, the brain is still compromised and potentially set up for further problems.

Others dangers that that I see with essential tremor and really neurological disease in general is what what I call emotional and social disturbance. So one thing that i seewith essential trimmer is that these people, me personally, we learn how to hide our tremors.

And by hiding our tremor, we end up hiding socially that leads to social isolation, essential tremors, has increased incidence of anxiety, depression, embarrassment.

And so there's really something that I. call in my community tremor trauma where we go through these experiences of being embarrassed or being ridiculed, even bullied because of our shaky hands.

Living with Tremor Trauma and Identity

And that teaches us how to hide basically. That I think is really tragic as well. Me personally, I had the experience of getting kicked out of med school and residency because of my tremor.

And that really taught me in an indirect way that I need to hide my trimmer. So I found myself over time avoiding situations where the tremors might be seen, avoiding opportunities like this to speak and to educate people.

because I was embarrassed with my tremor. So one of the other messages is really to help people realize that tremors or their neurological diagnosis is not their identity.

And really teach them about the disease and the process so that they feel comfortable talking about it out in public. helping them get to the point where they can stop hiding and share their gifts with the world, right?

So you did ultimately go on to complete your medical school and residency training. How did you overcome all of that? Yeah, so I got accepted into the med school that I wanted to, and part of their process was to go through a physical exam right before entrance.

And when I did that and they saw my tremor, they said, hey, we're going to reverse your acceptance. You need to. Go somewhere else. It was the military med.

So. They can just be more exclusive when it comes to physical findings. So I ended up going to a different medical school, fell in love with OB. love delivering babies.

And so I chose to go into obstetrics and six months into my obstetric residency, my residency director said, Hey, I noticed you've got a little bit of a shake in your hands.

I want you to see neurology. I went and saw neurology, again, diagnosed with essential tremor. And my residency director said, look, I'm not going to let you go on.

You need to pick a new field of medicine to go into. It was devastating. I ended up moving to family medicine because I could still do OB and so that's kind of what I did.

I really relied on some medicine during those early years in my career to keep my tremor at bay so I can do the procedures and all of those things that I love to do.

But with time, I found that the medicine was just causing a lot of side effects that I didn't like. And about at that time is when I discovered integrative and functional medicine.

When I saw how that really changed my own health, I decided to then, that's when I opened up the functional medicine practice and still pursued ways of trying to help the tremor and really didn't find good answers and then during COVID, my practice totally died.

And I took the opportunity at that point to really dive into all the research over the past 20 years on essential tremor and really looking at the search through functional medicine eyes and looking the degeneration and other things that were in the science, I started to see how we could use functional medicine to actually help the brain and help The tremor to get better.

And so that's kind of what's moved me in this direction. That really is fantastic. And I want to make sure we carve

out the time to talk about some specific strategies that folks can use.

I know you founded ShakeFree, and that's a program that is dedicated to find alternative solutions for people with essential tremor. One of the things I have to admit, I learned this from you a few years ago when we did your Essential Tremor Summit.

The term TREMOR Plus or Essential tremors plus And it definitely is a term that's used in the literature. I don't know, I'm going to say yet, because I think it's sort of inevitable.

As neuroscientists and the thought leaders, it sort set up these ways of understanding illness. If the American Academy of Neurology has fully adopted the term, but it is quite present and used.

And I think it's really an important term to understand as you bring in these ideas that balance cognition changes and emotional changes can coexist in people who have essential tremor.

Yeah, I think it is important and there's kind of this constant ongoing debate as to whether that nomenclature is going to be accepted or not.

Treatment Options and Medication Limits

But what essential trimmer plus really means is that you have essential tremor, but in addition to the typical or what we usually see as far as the action tremor, the postural tremour, then tension tremors.

There's other neurological findings that we're finding that don't qualify that patient for a different diagnosis such as Parkinson's disease. And so I actually, my My mode of thinking after looking at all of this for the last few years and then looking that patients and clients, I think that what I'm seeing personally in the people that I see is that essential tremor in most people evolves and progresses and they develop these other findings in their neurological exam such as balance is super common.

I see it really common where balance off and for some people becomes a problem. Cognitive changes start to set in as well. Difficulties with speech, difficulty finding words, is really common.

And then I'm also seeing things like hearing compromise or hearing loss, things We don't really, the literature doesn't show that this happens in everybody with essential tremor, but I'm seeing it quite frequently.

And so it just kind of, in my mind, convinces me more that, this really is a neurodegenerative process and that we really need to pay attention to the brain and take care of the brains so that things don't progress and become a problem.

And it's something that essential tremor can coexist with Parkinson's disease. And so I think it's also important to all the people with Parkinsons that may be listening to this.

Part of their difficulty might actually be explained by a central tremor. And that's important to identify because the approach is different. We can do different things to help that part of their tremor if they happen to have both.

Yes. So let's kind of dive into maybe how tremor can be approached from an integrative perspective. And when I use that term in my practice, I used it because I do accept or embrace the idea that for some people, medication is helpful or appropriate, but it doesn't mean that we should necessarily stop there.

There are three or four or five different drugs that are commonly used. Propranolol, historically, I don't tend to use a lot of it, especially in men as they get older, too often associated with erectile dysfunction or even issues where there's comorbidity like diabetes and we're blocking beta receptors in the pancreas and making people more insulin resistant.

So I tend to use mycelin or primidone as it's called, but gabapentin, topiramate, also sometimes use occasionally

zonysamide. But what I observe and I don't know what you've seen is that these drugs never get rid of the tremor entirely.

And when they do impact tremor in a meaningful way, they generally are improving the tremour involving the hands, not the head, the trunk, and not voice.

And usually when people say they're satisfied with the treatment, it's because they can do more with their hands that they couldn't do before. But if I look at them, I still see tremors.

So there's a lot of limitations with medication. Yeah. And again, for me, the message with treating with medication is we are treating the symptom by giving the medicine and we're not necessarily treating brain.

And so I think that's still for the big message is that the medicines may help and it may calm down the shaky hands, but in the long run, We really need to dive deeper than that and really take care of the brain.

And so I think that's the medicine is great. Used it for a long time. It helped me to do things that I loved in my career. But like you said, I ended up with a lot of side effects and decided to stop the treatment.

But yeah, medicine is a nice option because it can increase function, but we're not taking care of the brain when we just take the medicine. So then if we move on beyond medicine or say, what can we do besides medicine?

Of course, there's a surgical option that would, and it can be quite effective in ameliorating the symptoms as you put it. That would be deep grain stimulation primarily in a very limited capacity.

And I'll admit I have no experience with this largely, well, in part due to the availability, insurance coverage, you know, Medicare, CMS positions on what is the reimbursement like, and then private insurance follows this.

But many people are enamored with this focused ultrasound treatment.

Functional Medicine Approaches to Tremor

essentially like a knife-less surgery because they can use sound waves to target the same region of the brain as deep brain stimulation, but there's no incision, there is no wire.

And I do tell patients, I can understand how attractive that might be. But on the other hand, when you burn a hole in the, which is essentially what you're doing, you get what, right?

there's no turning back and there is no adjustment. And if we're going to go in the surgical route, even if the treatment was available widely, which it's not, I would still probably, if there was a surgical option was seriously being considered, still generally recommend deep brain stimulation.

So I do think that maybe the focused ultrasound is appropriate for the person who is not a good surgical candidate and extremely disabled by the tremor.

But in my days back at Emory when they were doing paladotomies for Parkinson's disease, you know, part of the concern was that it tended to be associated with an increased risk of depression and sometimes even cognitive decline.

So here we have essential tremor being associated with depression and cognitive decline. So again, I'm not a big fan of that. Now we need to have some more holistic functional medicine oriented strategies that really can get at root causes and truly help people to change that trajectory.

Tell me a little bit about what you're doing in that arena. Yeah, so really we focus on kind of a three strategy approach. And the first strategy is what I call reframe.

It's really a lot of helping the patient refrane how they think about essential tremor and really reframes their identity. and really take their identity away from their diagnosis.

A lot of times in medicine, when we give people a diagnosis, they take it on as an identity. And even in Madison, we make the mistake of saying, oh yeah, a Parkinson's disease patient come in today, instead of Mr.

Jones came in. So part of that is, our fault as a medical community. So really reframing the person's identity, how they look at essential tremor, understanding that it's a disease of the brain, and also giving them help if they've experienced that tremour trauma that I described earlier.

If they they have experienced some trauma from bullying or being excluded, things like that, then we will help them do things to help with processing that.

So in the clinic, we do thing like neurofeedback, thinglike that to helps with the anxiety, the trauma that can be associated with tremor and other neurological diseases.

The kind of the second prong of these three strategies is what I call restore. And that's basically where we restore the lifestyle factors that someone needs to take care of their brain, and then restoring what i call the ecosystem of, the body and the brain.

So this involves really looking at someone's lifestyle, their overall health, their laboratory markers and seeing where the the ecosystem of the body is imbalanced and restoring balance to that.

So when we take care of, the brain, we need to take of care the whole ecosystem, of body. The heart and the blood vessels need be working, immune system needs to be, working the gut or digestive system, needs be to working.

Hormones need to be balanced. All of these things contribute to the overall ecosystem of the body, but also the ecosystem the brain. And then the lifestyle is really important.

How someone is sleeping. Are they moving their body with exercise? What kind of diet are they eating? and how are they managing stress and things like that in their life are really key to, in the long run, preventing further degeneration and optimizing brain health.

And I'd really say it, part of that ecosystem that I find really key is the energy system of the body. So really paying attention to mitochondria, which is a part the cell that produces energy for the cells, and really nurturing the mitochondrial health so that the bodies can produce energy that their brain can use.

I find that that's really important. And then kind of the other part of this is what I call renewing the brain. That's doing things like retraining the brains.

We know that essential tremor involves the cerebellum. And the cerebellum is involved in coordination and things like that. So helping patients to incorporate training in their daily activities that help challenge the can actually help reduce tremor and our hope is that that can also help get new connections starting in the brain and hopefully we can slow down or stop the progression of tremors by doing all of those things.

What are some examples of that cerebellar retraining that you would recommend? So we work a lot with balance. We have people do complex movements, which would be like drawing figure of eights with their arms.

And we find that if our patients will take on new learning, new skills, such as dancing, pickleball, things like that that involve a lot of coordination, moving of their lower extremity and upper extremities, high hand coordination.

All of those things together can help. And then part of the renew part is also using other therapies to just try and enhance brain performance and activity.

So we use some laser therapy, we'll use vibration therapy as an input into the brain. We use hyperbaric oxygen to

oxygenate the mind and provide an opportunity for more energy production by oxygenating the body and the brains.

Therapies like that can also be helpful I want to circle back around to the neurofeedback because, and we haven't mentioned it's not that important, but I actually have a central tremor as well.

And I know, I'm sure most people agree, even those with Parkinson's who are watching this, when we're more in that fight or flight, the tremors tends to be worse.

So that neuro feedback, calming the brain, calming the body, not only improves the tremor, but when it puts the body back into that sort of rest digest parasympathetic mode, it opens the door for healing and regeneration.

Yeah, absolutely. I found that part of helping tremor do better is really trying to enhance that parasympathetic tone.

Neurofeedback, Parasympathetic Calm, and Living Unshakable

So the neurofeedback is great for that, but also doing things like meditation. deep breathing, other modes of like stimulating the vagus nerve to enhance that parasympathetic tone and decreasing.

I find that when people are really anxious or nervous and we get a rise in like adrenaline and those neurotransmitters associated with norepinephrine, we see that the tremor gets worse.

And so if we can calm down those neurotransmitters and calm the nervous system, that goes a long ways in helping the Tremor. That's excellent. You have a sort of a tagline, which is living an unshakable life.

And I love that. I think it's so important for the folks with the central tremor, but also really the folk with Parkinson's as well. It sounds like what you're saying is, You know, and you mentioned it earlier that we don't necessarily want to identify ourselves as the disease itself, that were unshakable, yes, I have Parkinson's, or I may have a central tumor, may I both in fact, but I'm not shakeable.

I am still me, And I will work on these things, But I won't let them define me. Yeah, absolutely. I think it's really important that those of us that have neurological disease, like I mentioned before, we tend to hide, and I and we get out into the world.

And so to live the unshakable life is to be able to shake free from the neurological disease or anything else for that matter that's holding us back and to able give our gifts to the World.

I think that is really important because everybody has something to give. So you have a newsletter as well as a website. Yeah, so people can find us at shakefree.org.

And if they go there, they can sign up for the newsletter. There's other things there that they opt into to get extra help. So we'd love to help them.

That would be wonderful. Dr. Drew Christensen, it's been such a pleasure to reconnect with you, to learn about essential tremor, tremors plus the differences between Parkinson's and essential Tremor and how they overlap.

What are the similarities? What are the differences and realize that even folks with Parkinson's can still be affected by essential tremor. And it's important to be able to distinguish that because you may say, well, I don't understand my levodopa therapy as calming that tremour that's present when my hands are just resting on my lap.

But when I go to reach for something, my hand is still shaking. Why isn't the levadopa fixing that? So we have to look at other dimensions of what's going on.

Yeah, absolutely. Thanks for having me. It's been a pleasure. Good to reconnect as well. Thank you so much folks. Stay tuned for more fantastic interviews in the Parkinson's solution summit.

We'll have much more to come. Thank you for tuning in to Doctor Talks. We hope today's episode has enlightened and inspired you on your path to optimal health.

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