## Associate Medical Director for the Center for Integrative Pain Management

## Lauren Hixenbaugh (00:23):

Welcome to Living Beyond Cancer. This is a series of podcasts created for cancer patients, survivors and their caregivers. Hi, I'm Lauren Hixenbaugh, a Program Manager for Mobile Cancer Screening at the WVU Cancer Institute's Cancer Prevention and Control and I'm the host for today's episode and I'd like to introduce my co-host, Andi Hasley.

## Andi Hasley (00:43):

Welcome, everyone. I'm Andi. In addition to being the Mountains of Hope Coalition Manager, I am a breast cancer survivor as well. Living Beyond Cancer is sponsored by the West Virginia Cancer Coalition Mountains of Hope and is produced by WVU Cancer Institute's Cancer Prevention and Control. We're thrilled to share today's episode with our listeners.

## Lauren Hixenbaugh (01:03):

Thanks for your introduction, Andi. Now I'd like to introduce our speaker, Dr. Corinne Stuart. She is a doctor at the WVU Medicine Pain Clinic. Thanks for being here with us today. Could you tell us a little bit about yourself?

## Dr. Corinne Stuart (<u>01:16</u>):

Thank you. Yes. Yes. So I have been with WVU Medicine for about 10 years now. I previously worked down at United Hospital Center and more recently transferred up here to the Center for Integrative Pain Management in Morgantown. So I've been up here for about two years now and I've been spending time at the cancer center treating patients with cancer and also with pain for about the last year and a half, a little over a year. I also serve as the Associate Medical Director for the Center for Integrative Pain Management. So that's it in a nutshell.

#### Lauren Hixenbaugh (02:01):

We're so glad to have you here today with us to talk about neuropathy and some other things surrounding that that patients tend to have questions about. So I think it'd be good to start off just telling everybody what neuropathy is and what causes that.

#### Dr. Corinne Stuart (02:17):

Sure. So basically neuropathy is a disease process or dysfunction of one or more nerves that go out into the body and give sensation to the body, give strength to the muscles and also manage some other things like breathing, heartbeat, blood pressure. So there are, as I briefly mentioned in the description of neuropathy, multiple types of neuropathy. It can affect one nerve. It can affect multiple nerves. It can affect nerves that get feeling. It can affect nerves that affect the strength of the muscles. And again, it can affect the breathing heart rate, blood pressure. So I think what we're going to focus on for our conversation today is the nerves that give feeling to different parts of the body, and when those dysfunctional nerves occur, why do they occur and how does it feel? How does that happen?

#### Dr. Corinne Stuart (03:33):

So neuropathy can be caused by multiple things. It can be caused by compression of nerves by a tumor, so that can put pressure on nerves and cause them to be dysfunctional. Sometimes patients have had

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surgery and the nerves that have been affected, injured or lesioned during the process of surgery, sometimes that can't be avoided especially if tumors are wrapped around nerves. It can be very challenging to disentangle all that without some nerve damage. Chemotherapy can be toxic to nerves and can cause damage to nerves. And with subsequent neuropathy, radiation can also damage nerves. Obviously all of these processes are very commonplace during cancer treatment. Immobility as a result of cancer, surgery, things like that, can affect bodily functions and nerve function and pain, and also infection, which many cancer patients are more susceptible to infection than others. So all of these things can play into neuropathy and the effects of neuropathy.

## Dr. Corinne Stuart (<u>04:52</u>):

Over and above that medical problems that patients have sometimes on top of cancer can affect neuropathy, so things including diabetes mellitus which causes high blood sugar. Sugar can be neurotoxic so that can also contribute to neuropathy, as can alcohol. So people who have regular alcohol use can also affect nerve function and contribute to neuropathy and neuropathy pain. And of course in looking at those comprehensively, pain can be aggravated by mood disorders, feeling tired, not being able to eat, being not nauseous. And these are all things that are commonly encountered with cancer patients. So it's looking at that whole person physically, mentally, socially, these can all be affected and affect each other within the process of pain caused by nerves.

## Lauren Hixenbaugh (05:56):

So I have never experienced cancer or cancer treatment myself, so what does this feel like? Or what do patients say that it feels like for them?

## Dr. Corinne Stuart (<u>06:09</u>):

So commonly we'll hear patients say that they have numbness or tingling or electrical type pain sensations. That's not the only types of sensations that they can experience with neuropathy, but those are some of the most common ones that we hear. And again, sometimes muscles can be affected in neuropathy, so patients can have some weakness or cramping or muscle twitching. But again, our bigger focus is the sensations that people feel with it or the pain that people feel with it, so frequently tingling, numbness, electrical zapping pains. I think, Andi, did you have some thoughts having more of a firsthand perspective?

#### Andi Hasley (<u>07:00</u>):

No. Lauren said, she said, "Hmm," when you were talking. And I said, "Yeah, that's pretty much exactly what it feels." That's an accurate description for sure.

Dr. Corinne Stuart (<u>07:10</u>): Oh, good.

Andi Hasley ( <u>07:10</u> ):	
Yeah.	

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Dr. Corinne Stuart (<u>07:11</u>): Perfect.

Andi Hasley (07:12):

So I was not prepared for neuropathy as part of my own cancer treatment. How common is this in patients that have had cancer?

## Dr. Corinne Stuart (07:27):

So neuropathic pain, the various types of neuropathic pain can occur in up to about 30% of patients with cancer. Sometimes it's strictly neuropathic pain and sometimes it's more of a mixed problem where they have pain because of tumor pressure. And on top of that, they have neuropathic pain. So neuropathic pain can be very challenging to treat and we see it in about 30% of patients with cancer give or take, so it's quite a lot. It's millions of people that have had cancer end up with some of the sequelae and it varies quite a bit as far as severity and intensity and symptoms. But it's a large portion of patient population with cancer that are affected by this.

## Andi Hasley (<u>08:20</u>):

So how does a patient end up in your office being diagnosed with neuropathy and then getting a treatment plan? What does that look like?

## Dr. Corinne Stuart (08:33):

So sometimes they come to us already having had a lot of the workup and sometimes they come to us having had no workup and they aren't sure what's going on and they don't know why they're having all this pain. And so initially we just start with doing an exam, talking to the patient and getting some history about what their treatments were, what they went through, how their pain has changed through the course of treatment and once they enter survivorship.

## Dr. Corinne Stuart (<u>09:03</u>):

And so depending on what we talk about when we're getting their history, and we do a physical examination to try to further understand where this pain's coming from, and again, potentially what caused it, there can be some additional tests that we would want to look at in patients that potentially have this neuropathy and some information that we can get to give us a more objective idea or more concrete idea of why they're having these symptoms.

## Dr. Corinne Stuart (<u>09:36</u>):

So we may look at some lab work to look at blood glucose levels or blood sugar levels, and to look at Vitamin B levels which can sometimes affect nerves. Frequently I will get an EMG nerve conduction study which looks at the function of nerves. So that involves some little pokes with the needle and some shocks, again, to look at how the nerves are functioning and conducting electricity. And sometimes we'll see areas throughout the body, the arms, legs, trunk, where nerves are not properly conducting electricity for various reasons. So that can help us localize it and identify the type of nerve and maybe give us some idea is this one nerve? Is it multiple nerves? What type of neuropathy is this? So the EMG nerve conduction studies can be very helpful.

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## Dr. Corinne Stuart (10:33):

Now the EMG nerve conduction studies test a certain type of nerve but they don't test all types of nerves. So there's other types of nerves that can also cause pain. So sometimes a skin biopsy for some of the really tiny fiber nerves can be helpful. So sometimes we'll do a skin biopsy to further try to figure out the diagnosis. But those are the big things. Occasionally imaging will be indicated if we think maybe there's a nerve being compressed or there may be a new issue going on. I think a lot of times when patients have this continued pain after they've gone through cancer treatment and they're in survivorship, it's scary because you think is this recurring? Do I have cancer again? What's going on here?

## Dr. Corinne Stuart (<u>11:25</u>):

And certainly we want to figure out what's causing it, but we also want to make sure there's no recurrence or anything that could be contributing to new or changing pain. So it's a good idea to do a very thorough workup and make sure we know what we're dealing with. And I think most patients find comfort in that. I think sometimes it's a little stressful going through some of those tests, but they do give us some very good information that lets us know how to treat them better.

## Andi Hasley (<u>12:02</u>):

So where in a patient's cancer diagnosis do they usually end up in your office for this treatment? Is it within the first three months? Is it after two years? And what does it look like for them to get there? I asked this because this isn't something I would've ever considered reaching out on my own, and it's not something that I've been referred to yet, but I'm not quite at the two year mark yet. So what does that look like as far as from a patient standpoint getting to this next level of resource?

## Dr. Corinne Stuart (<u>12:40</u>):

Sure. So sometimes I see patients while they're having treatment, while they actively have cancer and are receiving active treatment for the cancer. These symptoms can occur during that process. Sometimes when the treatments have ended and the patients have some time to recover. Some of these symptoms will get better and sometimes they don't. So I see patients all along the continuum when they have active cancer and they're actively being treated. I see them immediately after when the symptoms aren't improving. And sometimes it's years down the road before I have a patient referred to me because there are other doctors or providers have run the gamut of what they know to do for this kind of pain and they aren't sure where to go next. And so that's when we end up typically seeing these patients. And like I said, that can happen with their first treatment or it can happen 15 years after their last treatment.

## Andi Hasley (<u>13:42</u>):

That's really interesting that it encompasses that much time in a patient's life truly that this could be something that 15 years later is the result of a cancer treatment. And that's not something that you think of when you're in the throes of a diagnosis, a surgery, radiation, chemo, whatever. So it's interesting that it can have that length of challenge for the patient.

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## Dr. Corinne Stuart (<u>14:15</u>):

It is. Yeah, it's amazing. And I think especially during the active treatment period, people are just very focused on surviving and making sure their family is taken care of and just trying to get the basic day to day activities and chores covered. And so there is a huge focus on some of that. And so patients tend to push off their pain and think, "Well, I'll deal with this when I can. Right now I have a million other things to do that are more important and I'm just trying to survive day to day." And then sometimes the pain is very bad and it does become a priority.

## Lauren Hixenbaugh (<u>15:07</u>):

So just a little bit of a follow up question to that. I was just thinking about some of the things you were talking about and wondered are there any treatments or certain types of cancer that cause neuropathy more than another or any rhyme or reason to patients that get it more often than others?

## Dr. Corinne Stuart (<u>15:27</u>):

Yep. That's a great question. So this is one that takes a team based approach. So there are. There are some chemotherapeutic agents that are more likely to cause neuropathy. Radiation, some people require more doses or more repeat radiation. And the more radiation you have, the more potential there is depending on the area of the body where damage can be done to nerves. When patients have surgery or other comorbidities that can cause nerve problems, that can definitely affect the neuropathy.

#### Dr. Corinne Stuart (<u>16:05</u>):

So typically this is best discussed as a team. So if I have a patient that comes in and they're receiving active treatment and their neuropathy pain seems to be flaring, a lot of times I'll go talk to the oncologist and I'll just say, "Hey, what's the regimen? What do you guys think?" Sometimes it'll have to be adjusted. So again, this is a great place for a team-based approach. And the oncologists know so much about these various types of treatments and the potential side effects and outcomes. So frequently I will go to them if it seems like a patient is experiencing worsening symptoms with any particular type of treatment. But yes, certain treatments, the amount of certain treatments, surgery depending on the location, definitely affect the patient's chances of having neuropathies.

#### Lauren Hixenbaugh (17:03):

And while you're talking about treatment, do you want to talk a little bit about the actual treatment for neuropathy?

#### Dr. Corinne Stuart (<u>17:08</u>):

Sure. So a lot of times the initial treatment is medication based. So nerve pain is very hard to treat and that doesn't matter how it occurs, whether it's cancer, disc herniation. Nerve pain is tough to treat. So we typically have to approach this from a standpoint of it takes a lot of work and a lot of different types of treatment to get this pain under good control. Now, sometimes people are fortunate and they respond well to some of the more conservative, initial treatments. A lot of times what we start with is medication. So there are some types of antidepressants that can be helpful with nerve type pain. We'll use anti-seizure medications as they can be helpful for nerve type pain. There are topical medications that we can use, so numbing creams sometimes can be helpful.

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## Dr. Corinne Stuart (18:09):

There are medications that can be compounded by a pharmacist that can also be helpful. Especially when we get into more complex cases of neuropathy, we usually will involve physical therapy and or occupational therapy to keep patients moving and doing throughout these treatments. The more sedentary a person is usually the more sequelae they have or the more difficult outcomes they have with these kinds of problems.

## Dr. Corinne Stuart (18:42):

Now, what we do know is about 10 to 15% of patients will not be able to achieve an acceptable level of pain relief with these more traditional treatments. So we'll have to start looking into what else is available. So there are some more advanced interventions that can sometimes be helpful with this type of pain. So things like nerve blocks can sometimes be helpful depending on the type of nerve that's involved. Sometimes it can even be ablated or lesioned to try to help with the pain on a longer term basis.

## Dr. Corinne Stuart (<u>19:18</u>):

We can put in spinal cord stimulators which is a type of stimulator that's placed within the spinal column and sends out signaling to the spinal cord and alters the perception of pain for the patient. Sometimes these can be very helpful. They have nerve stimulators that you can put in more in the periphery, in the arms or legs directly on an involved nerve that can alter the perception of pain and can also be helpful. And then dorsal root ganglion stimulation is another type of approach where a stimulation device is placed within the canal directly on the dorsal root ganglion and then sometimes can be helpful, especially for more focal pain in an extremity. We also look to complimentary and alternative medicine, which there have been multiple studies on, and there's some reasonable low to moderate evidence in the literature, looking at multiple types of complimentary and alternative medicine techniques, such as acupuncture or Reiki in treating and managing cancer pain.

#### Dr. Corinne Stuart (20:32):

We also always want to be looking at how does this impact you from a psychological perspective? Because we know there's this pain, depression, fear cycle that you can get into and each can exacerbate the other and it becomes a vicious cycle. So it's always important that we're looking at all the aspects of the patient and ensuring that we're treating every part of that. Because again, depression seems to make pain worse and pain makes depression worse. And again, both of those things can be very scary and then that can exacerbate anxieties and depression and pain.

#### Dr. Corinne Stuart (21:19):

So looking at all of that, we also have cognitive behavioral therapy which a clinical therapist can do with a patient that gives them some mental exercises to do with themselves to help lessen pain, which also can be effective. A lot of these things have been studied in the non-cancer population. They have been studied in the cancer population, too, but not quite as extensively. So some of these things, we extrapolate from non-cancer pain, but seem to be effective with patients that have cancer-related pain. So that's the long answer.

Andi Hasley (22:00):

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It's just very interesting to hear all of the possibilities that are out there for treatment. And it's whatever sticks to the wall approach with each individual. So our listeners know a little bit maybe about my own cancer journey, but neuropathy has been my Achilles heel for lack of a better cliche through all of this, my own journey. And I'm sure there are a lot of patients out there that feel the same. So what are things that those of us that are dealing with it can do to lessen the burden, avoid injuries, sleep better? For me, sleep is probably my number one challenge throughout my day. So what are some suggestions or solutions for managing the day to day challenges?

## Dr. Corinne Stuart (23:01):

Sure. I mean, I think especially when it's affecting your day to day function and sleep is a day to day function, searching out where do I find people that can help me and can help me get this pain under better control is one of the first steps. And I think I mentioned earlier, not everybody realizes all these treatment options are available. And so it's good to self-advocate and to make sure that if you're having pain, not to just accept that, well, you had cancer, you're going to have some pain with that. There are options and so I think it's important to seek that out.

## Dr. Corinne Stuart (23:46):

I mean, other things, obviously neuropathy affects your sensation, so the feelings of pain and numbness and tingling, but it also affects the way that you perceive things in your environment. So if your feet are affected and you're walking around, you could potentially sustain an injury and not realize it because the perception is altered for you. The signals aren't going from your foot to the brain quite the same as somebody who has a normal, intact nervous system. So things like wearing protective clothing, making sure you have good supportive shoes on, if your hands are affected, potentially wearing gloves or compression garments sometimes can be helpful in altering pain sensation for you. You always want to be careful to monitor for any injuries, cuts, scrapes, things like that you may sustain, that you may have not have felt.

## Dr. Corinne Stuart (24:45):

So keeping a close eye on water temperature, too. You can really sustain some pretty bad burns, not realizing the water's as hot as it is if your pain perception is altered with neuropathy. Being careful when you're outside in extreme temperatures, when it's really hot or really cold out, you want to constantly monitor your skin and make sure you have good protective clothing on. There are some activities that will make your pain worse and there's some things that you'll do that'll make it better. And you want to listen to your body in those situations. I mean, if there's certain things that really, really cause a lot of pain, it may be better to avoid some of these activities or to take precautions when you're doing them or if it's a necessary task that you have to do, make sure you're taking breaks and that you're set up and you've given yourself some extra time to do these types of things.

#### Dr. Corinne Stuart (25:46):

Assistive devices can be helpful, too. Sometimes you need some bracing or orthotics to ensure that you're not going to injure yourself. A walker or a cane sometimes can be helpful. If you do have some muscle weakness associated with a neuropathy and your foot droops, you don't want to catch your toe. It puts you at an increased risk for falls. So you definitely want to work on things that are going to

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prevent further injury for you. So that those are a handful of things that people should keep in mind when their perception's altered because they have a neuropathic pain problem.

#### Andi Hasley (26:26):

So one of the things you mentioned in all of the options that are out there are compression clothing, assisted devices. Do you have a specific place that folks could go to get some of those? Is that something they should go to their oncologist about? Their primary care? Should they order it online? Where do you find the best option for you?

## Dr. Corinne Stuart (26:54):

So typically, I mean, I think the people that are often most helpful with this are physical therapy and occupational therapy, so they're really good at assessing those types of needs. And sometimes the occupational therapist can actually devise an orthotic on their own. They can make one right there in clinic. Sometimes they have compression devices within the therapy clinic and they're able to apply it and proceed with whatever their activities are with the patient and see how the patient responds to that. So a lot of times that's where I'll start is with physical therapy or occupational therapy.

## Dr. Corinne Stuart (27:40):

Now if they need something a little bit more involved, a more involved bracing system or orthotic, there are specialists that can make prosthetics and orthotics. So that would actually be a separate referral. But a lot of times physical therapy and occupational therapy can provide a lot of these items. And a lot of times the places that do prosthetics and orthotics, this is the case as well, but they're immediately able to reevaluate the patient and see how it changes their ability to function and how it changes their pain sensation. So that's nice.

#### Dr. Corinne Stuart (28:19):

But obviously they need the initial referral. So if you're seeing a pain management specialist, my primary specialist is a physical medicine rehabilitation, so actually a physical medicine rehabilitation specialist is ideal for monitoring these types of needs and getting the patient properly referred. Now a primary care physician can certainly refer to physical therapy and occupational therapy or the oncologist can as well. So if you don't have a pain doctor in your area or a physical medicine rehabilitation doctor in your area, this is certainly something that our oncology or a primary care doctor can give you the order for physical therapy or occupational therapy. And like I say, the PT/OT people are phenomenal with this stuff. And again, if something more involved as needed, they often will give that feedback to the provider that referred the patient. And again, it just goes back to the importance of that team-based approach and all the providers staying in contact and making sure that we're on the same page and that we're all working towards the same goal.

#### Lauren Hixenbaugh (29:32):

Certainly. I think that's great advice for patients. I don't know about everybody else, but I feel like I've learned an awful lot today. So as we start to wrap up, one of the questions I always ask everyone is if listeners were to remember one thing from today's episode, what would you hope it would be?

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## Dr. Corinne Stuart (29:52):

A lot of education and time goes into talking to patients about their cancer diagnosis, and the treatment that's involved with managing the cancer, and trying to get you to a place where you are in remission and you are able to move into survivorship. And less time is spent focusing on once we get you through this, there may be some more issues that you may have to deal with such as pain or nerve damage. I think that it's important to know once you get through that, which is the act of cancer treatment, it's a huge hurdle and it's such an accomplishment to get through that and to put that part behind you.

## Dr. Corinne Stuart (<u>30:37</u>):

But there are still some issues that may need to be dealt with and those issues such as pain or neuropathy deserve the time and the education that you need as a patient to move on with your life and to get back to as normal of a place as you can with that. And I just want people to know that there are resources out here for this and people who want to help you with this and provide all the answers that are available and that you need, and hopefully provide some good solutions, too.

## Andi Hasley (<u>31:16</u>):

Well, Dr. Stuart, thank you so much for spending some time with us this afternoon. I think not only have we learned a lot, but we also realized that there's so many options out there for folks that are dealing with pain and neuropathy in their cancer treatment. And we always hope that people, Lauren always says to be an advocate for yourself to not just deal with it every day, but to reach out for help for resources and your first outreach doesn't even have to be to a doctor. It can be a friend. It can be a family member. But don't just go through your day to day and be miserable. There are options out there to help you feel better and to help you improve your quality of life. And you've offered lots of options for listeners to be able to do so, so thank you so much.

#### Dr. Corinne Stuart (<u>32:03</u>):

Yeah, absolutely. I mean, the other things that people may be curious about is just how you get to a pain specialist. So generally, most areas have a pain specialist either directly available or in the near vicinity. I mean, for us at the pain clinic, we're able to see patients both at the Center for Integrative Pain Management and also at Mary Babb, at the cancer center. So we're available both places and patients can be referred either place to be taken care of. If patients are in a more rural or an area that's not Morgantown, West Virginia, they should look for their local resources with pain management physicians. There are a lot of pain management physicians out there that will take care of patients with cancer pain. As you said, it's available. Look for it. Advocate for yourself. We're out there.

#### Dr. Corinne Stuart (<u>33:06</u>):

And one other thing that I thought was probably worth mentioning is sometimes, especially at these larger centers like WVU, there can be resources available for patients who may need a little bit of help. It can be really hard to travel to these appointments and get the medications that they need, and to have some of the other resources that they need to work through some of their diagnoses and pain problems, et cetera. So a lot of times these places do have social workers that are available that can assist or facilitate with some of the needs of the patients.

Dr. Corinne Stuart (<u>33:46</u>):

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So that's another thing. If you think you can't get somewhere for various reasons or you're just not going to be able to participate in your treatment because funds are limited or because rides are limited, there are often resources out there. And again, the social workers that we have at the cancer center are phenomenal in helping find those resources. So even when you think something's not possible, it's probably worth asking because there may be resources available to you.

## Lauren Hixenbaugh (<u>34:23</u>):

And while we're talking about resources, I always just like to mention the Living Beyond Cancer Facebook page. It's a support group on Facebook. You can just go in the search bar inside Living Beyond Cancer. You'll find us there. We have a really supportive community where people can share experiences and stories as well. And then also if you have more questions for Dr. Stuart or either Andi or I, you can get on Living Beyond Cancer and you can visit us at www.wvucancer.org. Click our link there and you can find our email and ask questions and things like that. If you're not sure where to find somebody in your area or something along those lines, Andi and I both would be happy to reach out to Dr. Stuart and ask those questions and we want to make sure you're getting the care that you need. So Living Beyond Cancer would really like to thank our guest today, Dr. Corinne Stuart for joining us. Andi and I would like to thank all of our listeners for coming. We hope that you'll continue to join us.

Dr. Corinne Stuart (<u>35:23</u>): Thank you all