

Living Beyond Cancer

Exercise and Cancer

Guest: Dr. Nicole Stout

Lauren Hixenbaugh (00:01):

Welcome to Living Beyond Cancer. I'm Lauren Hixenbaugh, the Coalition Manager for Mountains of Hope. Living Beyond Cancer is a series of podcasts created for cancer patients, survivors, and their caregivers. This series is sponsored by the West Virginia Cancer Coalition Mountains of Hope, and produced by the WVU cancer institute's cancer prevention and control. Today is slightly different as we are recording in multiple locations. So please forgive any of our tonal differences. Our guest today is Dr. Nicole Stout. She is a Research Assistant Professor in the department of hematology and oncology at the WVU Cancer Institute. Nicole is a renowned healthcare researcher, consultant, educator, and advocate. We are delighted to have you here today to discuss physical activity in cancer care spectrum. Could you just start out today Nicole, and tell us a little bit about your role with the Cancer Institute?

Dr. Nicole Stout (00:57):

Sure. Thanks Lauren. Good afternoon, everyone. I'm thrilled to be here. My role with WVU Cancer Institute is around clinical research in cancer survivorship. My primary role is as faculty as Lauren articulated with the hematology oncology group. But I also teach in the school of Public Health and the patient navigation curriculum for undergrad students. My goals with the work that I intend to do, I've only been at WVU now for about nine months. My goals are really to help us accelerate research and practice in areas that can help to improve care, supportive care primarily for individuals who are living with and beyond cancer. Exercise is one very important part of that.

Lauren Hixenbaugh (01:49):

Well Nicole, we're so glad to have you as a part of our team here at WVU again, we're thrilled to have you on the podcast today to talk about exercise and cancer. Now a lot of people are going to read exercise and cancer and say, "I already know about exercise." But today we're really going to take that deep dive into it. You're going to tell us a little bit more about exercise related to cancer.

Dr. Nicole Stout (02:14):

Yeah, I think you're right Lauren. A lot of people say, "Exercise. Yeah, I know. I need to do more of it." Or, "I don't do enough." Or, "It's a part of my lifestyle," or it's not. But when we introduce exercise in the realm of cancer, I think sometimes people step back and say, "Whoa, should I exercise if I'm going through cancer treatments? I don't feel very good. I'm fatigued. I'm having all these side effects. Maybe I shouldn't exercise." I think what I'd like to do today is really talk about the benefits of exercising specifically for individuals going through cancer treatments.

The benefits of exercise even beyond the completion of cancer treatments. So people who've been done with treatments sometimes for years still have those hormonal therapies that they're on that cause joint, aches, and pains. Exercise can be beneficial and helpful. So I think sometimes we say we understand exercise and we know. But when it comes to cancer, it's a little bit different. The other thing I think of sometimes is we talk about exercise and you say, "I've never been in exercise. I've never done it. I just want to focus on getting through my cancer treatments. This probably isn't the time for me to start." I would say this is an excellent opportunity for you to start and we're going to talk about some ways that people can ease into exercising, or even just increasing their level of activity. Because I think sometimes exercise, the concept can be quite frankly intimidating. Do you want me to go to a gym and get on a treadmill? When in fact it really is more about increasing your activities, doing more of what you do each day. Getting yourself moving more frequently, perhaps. So there's a lot of meaning and context around exercise. I'm excited to talk with you to sort of dig into some of these nuances and hopefully at the end of this, give people a little bit more of a comfort level with exercising around their cancer diagnosis and beyond and definitely give them some resources to help to support them.

Lauren Hixenbaugh (04:25):

Yeah that sounds great Nicole. I think patients really benefit from resources, and it's something that we don't often talk about. They don't know where to find those resources and you also talked about the cancer care continuum. You are going to talk a little bit today about that and kind of talk about that prehabilitation all the way to end of life and how the exercise benefits within that continuum.

Dr. Nicole Stout (04:49):

Yeah and I think that's a great place for us to start, right? Start at the beginning. That's where everybody starts with a cancer diagnosis. One of the things that I say about exercise and cancer is this. Everyone needs something. Everyone should be doing something. The amount that they do, the type of things that they do, that is going to vary through that continuum. So starting at the beginning at the point of the diagnosis, there are for some individuals who come into a cancer diagnosis. Some people are already exercisers. They're already in good shape, they're walking, they're jogging, they're participating in some type of an ongoing exercise program. We should enable those individuals to continue as much as they can throughout the course of cancer treatments. Reinforcing to them that exercise is good. If they begin to develop problems and impairments like joint pain, or fatigue, helping them to identify ways that they can continue to exercise, to mitigate, reduce the severity of those side effects of disease treatment. Some folks come to a cancer diagnosis and maybe they've intermittently exercised. Or maybe they were a past former athlete and sort of, it's gone by the wayside in their life. This is an opportune time to reevaluate the benefits of just being more active. So those individuals coming in, we really recommend U.S. wide recommendation for physical activity levels for individuals with cancer. The recommendation is 150 minutes of exercise accumulated throughout the course of the week. So what does that look like for example? If you exercise three times a week, that's about a 45 to 50 minute exercise program. We say that that exercise

should be of moderate intensity. Well, what the heck does that mean? Right? Moderate intensity we define as you're working, you're doing the activity, you're breathing hard. But you're still able to talk and carry on a conversation. So in other words, you feel it. So the goal for those folks coming in is let's try to keep you maintaining at that level of continuing to be active. Now, some folks who are newly diagnosed are not in great shape. They have what we call a poor performance status, or they've not been exercising. They have a sedentary lifestyle. The risk with that is that they may be challenged more so by the cancer treatments that they're going to go through. So we've seen more and more evidence around this concept of what's called prehabilitation. What that means is during the time period that your doctors work you up to start your cancer treatments, we will start an exercise program. A supervised exercise program with you overseen by a cancer exercise specialist. That can be a fitness professional, or an exercise physiologist, or a physical therapist. But what that does is it helps to get you in better shape and conditions you a little bit before you start cancer treatments. What we've learned is for those individuals, it can be incredibly helpful. They can tolerate their chemotherapy better. They don't tend to have as many problems with side effects. The side effects that they do experience tend to be less severe. So those are some of the benefits to being active and maintaining your level of activity as you come into at that point of diagnosis and start into cancer treatments. Now as you move through cancer treatment, it becomes more and more challenging, right? You're met across that continuum. You're met with different treatments. Chemotherapy, all of the chemo drugs, and their different side effects. Nausea, vomiting, immune suppression, you're at risk for infections. Fatigue that people very commonly experience. You may have neuropathies, numbness and tingling in your fingers. and it may be uncomfortable for you to try to continue to be active.

Dr. Nicole Stout (09:06):

So as you move through that treatment continuum, there are some precautions that we need to be aware of when you are exercising. We absolutely want folks to continue to be active, but we want to be mindful about the interventions about the treatments that they're experiencing, the side effects that they're having and help individuals better understand when should I pull back, right? It is concerning that I'm having some joint pain? Should I push through it? Should I not? Those things are not easy for people who are not medical providers to think through. They need help. So this is where the exercise specialist, a fitness professional, a physical therapist, or an occupational therapist can be helpful. and sometimes it doesn't necessarily have to be, you don't have to see them many, many times. But you could see them once or twice for a consultation and get some insight about some easy home exercises. Things that you can do right in your living room or right in your kitchen, to help you just to maintain that level of activity or boost your strength. Or boost your balance, help to relieve some of the fatigue, etc. So those things during the cancer continuum, during treatment are important. We want folks to stay active, keep active. But we recognize fully the side effects of treatment do not make you want to be active, right? So on and off chemo cycles, you're going to have days where you really don't feel good. You're going to have several days when you don't exercise and that's okay. But keeping in mind as you start to recover after that chemo cycle, getting back into a walking routine or in exercise or activities that you were doing previously. That's really the idea is let's help to keep you maintaining throughout treatment.

Lauren Hixenbaugh (10:56):

Nicole, do you want to give folks some examples of exercises that you would recommend for people going through treatment?

Dr. Nicole Stout (11:04):

Absolutely. and like I said, I say this all the time. Everyone needs something and it's different for each person, depending on the types of treatments that they're receiving. But also really, it depends on the kinds of things that people like to do or that they typically do throughout their day. We live in a society where we have so many things around us in our homes. We have so much going on. We can interface and interact on television, on social media. Through websites and web interfaces. So those are a lot of places where people can find information, can engage in exercise programs that they have access to an app or an exercise video online. But not everyone has that. Right? So some very simple things that I talk to folks about is sometimes it can be as simple as two or three exercises that you do in your home two or three times a day. So keep it in that very simple. Two or three exercises, two or three times a day. and those can be things like doing little mini squats, standing up against the wall. Standing against the door and doing some mini squats. Maybe start with 15 or 20 and see how you feel. So that's one exercise. Standing in place and marching for a minute or for 30 seconds, or for a minute and a half. and working your way up through that.

Dr. Nicole Stout (12:32):

We can progress those things by adding to them. Starting with mini squats, adding to those, standing in place and marching. Maybe then it's jogging in place. So all of these things can be done right in your home. Things that you can do right in your own premises. Going out and taking a walk. I have the steepest driveway known to mankind. So I can go out and walking just up and down your driveway once or twice. That can be a taxing activity. If you start to feel fatigued from cancer treatments, the idea is in fact if we can get you to be active and you start to feel a little bit of taxing or fatigue with an exercise program, it actually helps you to recover from those symptoms as you're going through treatment. The other thing to think about is exercise sometimes, we want to try to be very targeted based on the type of side effects that somebody is experiencing. So exercise like I said, it could be if you have a treadmill, it could be walking on a treadmill. If you have a stationary bike, it could be those things. It could be taking a walk in your neighborhood. But, it can also be targeted exercises for stretching. Those individuals who are going through radiation therapy. I'll tell you, you cannot stretch too much. Flexibility in the tissue when you're going through radiation is so incredibly helpful. So moving the arms. Postural exercises, moving the neck things. Simple things like shoulder rolls, arms up overhead. Arms back behind your back. High leg lifts and leg marches. Those kinds of things that give you a little bit more of a stretch and flexibility. So joint mobility, joint flexibility and in stressing the muscles, even if it's just very slight. Those things can be helpful.

Dr. Nicole Stout (14:27):

The other thing I like to focus on a lot with folks is breathing exercises. Because if you experience surgery. If you have again, any type of radiation to the chest wall. We see that in a

number of different types of cancers. Anything that involves the chest wall, the head and neck region, the upper extremities. Breathing really can become challenged. Not only that. For individuals who are going through different types of chemotherapy, they become very fatigued. Shortness of breath may be a problem. So we focus on exercises targeting breathing strategies. Simple things. Like I tell folks blowing out a candle, think about blowing out a candle. We call it pursed lip breathing. But what it does is it really allows you to force an exhalation, and then increasingly get a little bit more air into the lungs. So those types of strategies for exercises can be helpful. Balance exercises is another one. Balance is one of those really interesting things that you will notice if you have some neuropathy, some numbness and tingling in your fingers. That your balance may a little bit off. You may not be able to feel so safe and so steady on your feet. So there are some exercises, simple things like standing flat with your eyes open, and then standing with your eyes closed. That challenges your balance. Standing on one leg to count to 10, standing on the other leg to count to 10. Those are some things that will challenge your balance. and the more that we challenge it safely. If you're standing on one leg, make sure you're standing by your countertop. So that you have something to hold on to. The average person can stand on one leg for about 24 seconds. So try that at home, test yourself out. If you can't make 24 seconds, well, there's a good challenge for you, right? Something so simple.

Dr. Nicole Stout (16:20):

The other thing I encourage people to think about are groups, right? We do a lot of things better with a buddy sometimes. So for family members, for individuals if you have a neighbor, a friend, someone through your church group who picks you up and takes you to places. Doing activities and exercise with them could be helpful as well. One of the things I hear very frequently in individuals who are maybe a little bit older, maybe not in such great physical condition. They say, "Well, my son comes and he goes to the grocery store for me and he gets all of my things and brings them back to me. Or he goes down and gets my mail at the mailbox at the corner because it's a quarter mile away and it's too far for me to walk." Well, perhaps a great strategy could be go with your son to the grocery store and have him, you have someone there to help you and to support you. See how much you can tolerate walking through the grocery store and doing the shopping. Have him walk with you down to the mailbox to get the mail. You've got someone there. Is this safe? Sort of secure situation. So those are some little strategies I like to encourage folks to think about. Going up and down your stairs in the home. Again, that's activity. and that could be exercise.

Lauren Hixenbaugh (17:36):

I love those little tips you gave. and I think a lot of cancer patients, they are starting at the beginning like you said earlier. They're thrown into this. They're not sure where to start. So could you tell us who patients should talk to? When do they need a specialist?

Dr. Nicole Stout (17:55):

I think everyone should have a consultation at some point with a healthcare provider that can give us some insights on exercise and preferred strategies. Just some of those tips that we just talked about. So that person could be your primary care provider if you're engaging with them

regularly, or a nurse practitioner if that's who you see. But I would really prefer, I would suggest there are exercise professionals that are out there who are very knowledgeable in oncology. They know the cancer treatments and the side effects. One of the challenges that we have right now is working to build capacity around the state of West Virginia. So recognizing that a gym that you may go to down in downtown in your town or nearby your house may not have someone who's well versed or understands cancer very well. and they may be fearful as well and say, "I'm not really certain about this." But there are exercise trainers and professionals who have advanced knowledge in training. Physical therapists are a great resource and there are lots of them around the state. Occupational therapists. and sometimes like I said, it's just maybe one or two consulted visits. They can give you some ideas. I think it's important to have that relationship as well with them. They can give you some strategies. If you start exercising and you start to have pain or problems, you've got someone to go to now and say strategize with them to figure out how you can change the exercise program if you're having problems. Or if you're going to start different treatments, you can go back to that person. Strategize with them around how to change your exercise program, because different side effects are expected with the treatment that you're going to have.

Dr. Nicole Stout (19:48):

So I do think it's good to have that touch point with someone who is a well educated fitness professional. We are working right now to try to build that capacity around the state. I think part of it is working with the fitness clubs and the fitness centers around the state to begin to train their professionals so that they're much more comfortable in helping to facilitate exercise programs. We're also working with some of the rehabilitation professionals around the state. Helping to increase their knowledge so that they're more comfortable working with individuals who have cancer. I think sometimes I know our physicians are well intentioned and they'll say things like, "Oh yeah, you should be exercising. You should keep moving." When you really need some guidance on that, and you ask a question and you say, "Well, how much should I do? Or what should I?" and I've had patients say, "It's very frustrating when you ask your doctor and they say, 'Yeah, you should exercise, but don't overdo it.'" Without giving any concrete guidance, that's really frustrating for a patient. So I think if your doctor is well-intended in saying, "Yes, you should exercise. I love that idea." Then maybe the followup to that is, "Well, help me find someone who is a professional that I can get connected with." Your doctor may need to write a prescription or a referral to physical therapy or occupational therapy. So you can get one or two visits with them to get some exercise strategies. So it has to sort of be that continuum when you're talking about seeing an exercise specialist.

Lauren Hixenbaugh (21:28):

Well, and I think one of the other points that we need to talk about is it's not only that they don't know what kind of exercise or how much. There's also this addition of concerns. You mentioned pain earlier and then there's also some fear of exercising and some fatigue related to that. Do you want to elaborate on those a little bit more?

Dr. Nicole Stout (21:49):

Yeah. There are things, and this also contributes to what we were just talking about, right? The reason it's important to engage with a fitness or an exercise professional, someone who's knowledgeable. Because here's what happens. You say, "Great. I'm so excited. My doctor wants me to exercise. Great. I'm going to do it." and I go out and I start walking. and my ankles, and my knee, and my hip now. I'm having so much pain, I can barely move two days later. and your doctor says, "Well, stop walking." Well, really what we want to do is problem solve that. We want to understand why were the shoes that you were wearing maybe not the right shoes to be in? That can contribute to it. Was the surface that you were walking on uneven? How can we help you to ramp up in that activity safely? So there are concerns. There are also red flags, quite frankly. I always want people to have license to go and do an exercise. But keeping in mind that it's not a no pain, no gain phenomenon, right? We're not training Olympic athletes here. We're just talking about keeping yourself moving through cancer treatments. You can train for an Olympic marathon later. We'll certainly help you do that as well. But I think most of this is just how do we keep you moving safely? So what are the red flags, right? When should you be concerned? A new onset of pain that is rapid and sharp when you're exercising, that's concerning for many reasons. But especially in individuals going through cancer treatments, it can be associated with complications from the bone. It can be associated with blood clots. There are many, many things. But a new onset of pain, it can be the nerve that's being irritated. So a new rapid onset of pain is concerning. If you become overly short of breath. You're sweating excessively, you become overly short of breath. You can't catch your breath. This is not a time to try to push through it and tough it out. Stop and reassess. What were you doing? Perhaps you went a little bit too fast, a little bit too far. A great premise to work from that I tell folks is start low and go slow. So you do want to start at a place where you're taxing yourself a little bit. You're feeling it. But not so far that you're pushing yourself with lightheadedness, dizziness, shortness of breath. Those are places where I say stop, time out, take a step back. Instead of trying to go with that high of an intensity, let's bring it down a notch. So those are some of the concerning features.

Dr. Nicole Stout (24:38):

Another point that you brought up is fear around exercising and that very, very real. and that's within the individual and their experience of being active and moving. 've worked with patients before who are building back up their strength, they're building back up their endurance. They feel like they're coming through cancer treatments, but they don't have the confidence to walk outside. Because it's a more stimulating environment. Or, "Well, I have to walk on my driveway to get the mail and it's steep. I don't have the confidence to do that." Walking around your house is one thing. Walking outside is different. So we have to remember an exercise program should build you up physically, but it should also help to build you up emotionally. It should help to build your confidence and not make you fearful. There is some really good evidence to support exercises like yoga, tai chi, some of those complimentary and alternative types of exercise which are much more low intensity. Can be very, very helpful in helping to build strength, helping your endurance, and also helping with your balance. So I encourage like I said, everyone needs something. There's so many different ways to exercise. But remembering that you need to be confident in what you're doing. It needs to make you feel good and satisfied in what you're approaching with an exercise program.

Lauren Hixenbaugh (26:14):

So I kind of want to go back to we talked in the beginning about that continuum. We've talked a lot about folks that are receiving treatment. But what about those folks who are on the other side? They're onward to survivorship, and maybe even some at the end of life and what are those benefits? What does that look like for people?

Dr. Nicole Stout (26:38):

Yeah, the tricky part about cancer treatments as I like to say. Even though an individual finishes cancer treatments, sometimes the treatments aren't done with you, right? Treatments are sometimes the gift that keep on giving. We see that with many different types of chemotherapies. We see that with many different, the side effects of radiation. They can persist for years. So I think you got to think about exercise as a commitment and it's a lifelong process. Are you going to exercise every day for the rest of your life? Heck no. Are you going to exercise a couple of times a week for the rest of your life? We hope and you know what? In that time period, if there's a week that you fall off or two weeks, you can still always come back to it. That's the mindset that I like to get folks into. Continuing on with something. So as you move into we go beyond the end of cancer treatments, the side effects become less. We start to feel better. I think this is a time when folks can think about pushing themselves a little bit. This is a great, sometimes a very pivotal moment for people personally. They've conquered this disease. They feel really good about themselves and they want to now, "I'm going to take up a new activity or a new hobby." This is a great time to do it and conditioning should certainly be a part of that. So let's make exercise an activity enabler towards those lifestyle and behavioral changes. So the other thing that I think is important during that survivorship time period, beyond the end of treatment. Is again, being mindful of any type of new onset of pain, any problems that you've experienced when you're exercising. Even if it's just, "Gosh, this shoulder joint is so stiff." Having someone really look at that and help you tailor your exercise programs so that you will avoid those issues and maybe help you to stretch or remediate that problem that's come up. Many times, the physical or occupational therapists can help you overcome those barriers so that you can keep exercising.

Dr. Nicole Stout (28:49):

Gosh, I know individuals going through cancer treatment who are longterm survivors. Who are athletes, marathon runners, dragon boat rowers. I mean, rock climbers. There is not an activity that I tell people you can never do this for the rest of your life. Even individuals who have had amputations and have prosthetic limbs, we have adaptive sport opportunities for you. So there are so many opportunities. Swimming is great if you have a lot of joint issues and joint pain. So the other issue that I recognize and is important to talk about. For some people, there isn't an end to treatment, right? I think that's very real and we have to talk about that. So there isn't this, "I'm a survivor. I finished my treatment." For some people, they will be on treatments for the rest of their life and you know what? That means they need to live good life. They need to live good quality of life. They need to stay active, as active as they can. Because when someone has more advanced disease and is on continuous treatments, these individuals may live for years, decades on continued treatments. So what can we do to keep them healthy and active?

There's again, a lot of evidence suggesting that even individuals who are palliating symptoms, who are not on active treatment, or who are on continuous progressive disease temporizing treatment, they will still benefit from exercise. This is really the place where I think a supervised exercise program is most helpful. So that could be again, the physical or occupational therapist. Or an exercise physiologist who is a cancer specialist. Because there will be fluctuations, more fluctuations and more changes. There are some great exercise programs in inpatient hospice centers. They have rehabilitation services and encourage mobility and activity. Things that can help to keep you safe. Things that can help to keep you more functional, even moving towards end of life. So everyone needs something like I said. I think it's important to really keep that in mind and say, "Okay, my something is going to change because I'm on a different disease treatment. Or I'm taking a different pathway to palliate my symptoms. What's my something now? What's the activity that I continue to do?" and that's where the professional can really be helpful to sort of walk with you through that change and transition, help you find some opportunities that might be very effective.

Lauren Hixenbaugh (31:37):

I'm also thinking Nicole about the emotional benefits of exercising throughout this continuum that we're talking about.

Dr. Nicole Stout (31:45):

Absolutely and undoubtedly. It is empowering for people to be able to say, "I have the independence and autonomy that I can exercise." There is a very real endorphin release that goes along with exercising. You do feel good afterwards. I'll also just express there is a lot of evidence to suggest that exercise reduces anxiety, depression, distress and much of that though is around this lower intensity level of exercise. The benefits of yoga, deep breathing exercises. Walking exercises with meditation combined. Those types of lower intensity activities can really help to improve the psyche and I tell folks all the time, "If it helps you here in your head, it helps you physically." So we can't dissociate the psychological from the physical. They're very, very much intertwined. When one feels good, the other one feels good too. So definitely Lauren, you're right. There is a huge psychological benefit here.

Lauren Hixenbaugh (32:54):

An overall benefit for the entire being.

Dr. Nicole Stout (32:59):

You know, so there's an old saying. It was the very first director of the National Institute for Aging. He said, "If exercise was a pill, if exercise came in a pill, it would be the most widely prescribed medication for every single impairment and malady facing our society worldwide." But it's not that easy and that's the part about exercise that I think is frustrating. It's hard. It's hard. You need to have that motivation and it becomes harder when you're facing disease treatments and side effects that make you feel not so good. You feel terrible some days when you wake up. That's okay. Right? But having that catalyst in your mind that I need to keep moving and I need to keep exercising. When individuals are going through cancer treatments

and their blood counts drop, it happens with every single chemo cycle and they're at risk for infection. Exercise can help those blood counts recover much more quickly. It can help you avoid some of those longer term problems like the infections and risks that we see with many of the prolonged treatment. So if exercise were that easy, if it were a pill, we'd administer it to everyone. But unfortunately it isn't and that's where the knowledge and the skills that the professional can really be beneficial and helpful.

Lauren Hixenbaugh (34:25):

Yeah Nicole, so you're absolutely right. Exercise can benefit us throughout the spectrum. One of the things that we find is that exercise is a little more difficult in West Virginia.

Dr. Nicole Stout (34:37):

Yeah. I have to agree with that. I grew up in Western Pennsylvania, so the terrain is familiar to me, right? Southwestern Pennsylvania and then I lived in Washington D.C. and in Florida. Then I moved back to West Virginia. and I went, "Gosh, I forgot about all these hills around here. These aren't hills, these are mountains." and you're absolutely right. So there are a number of challenges that we face here in West Virginia, and the terrain is just one of them, right? Geographically, we are very distributed. This is a very rural area. Now with that comes a lot of opportunity to be physically active in your backyard, for example. Sometimes we look around and we say we don't have really an infrastructure for exercise. "My roads aren't safe for me to walk on." I get it and I see the trucks that go really fast on these tiny, skinny roads. "I don't have the capacity. I don't have places where I can go, parks that I can walk in." That's where I think we've got to think differently about what can you do in your home? What are the things that you may have? Can you find a dedicated space? The stairs are a great place to help you to give you a little bit more of a taxing exercise. The other thing that we have here in West Virginia with rurality are issues of connectivity and I get a little frustrated from time to time talking to exercise professionals around the country and they're saying, "well just do these webinars or just do these internet based exercise programs." I'm saying, "I don't know that people really realize the challenges that folks in rural communities face." Not only may you not have good connectivity in the holler that you live in. If you do, your data plan may not support you downloading an exercise program. So those things are irrelevant in a lot of instances for individuals in very rural areas. So we have to think differently about that here. What can we do to give our patients exercise booklets, exercise templates when they come in for visits? Whenever you're being treated for cancer, ask your oncologist, "Who's the exercise specialist in your center that I can see?" Is there a physical therapist that they can consult you with? and ask them. "Give me the list of exercises that I can have that I can do." You've got something in your hands to take home, to look at, to reference. You could post two or three exercises up in your kitchen, put two or three of them up in your bathroom. Bathroom's a great place to practice your sit to stand, right? Sit to stand squats from the toilet. It's an easy one and just another one of those tibit ideas.

Dr. Nicole Stout (37:28):

But I do think we have to think differently. We want people to have the ability to interface. But we've got to give them those resources that they can actually take with them. It's challenging when you say, "There's a fitness center that has an exercise program for cancer, for individuals with cancer." Well that's a 45 minute drive. Again, untenable. So how can we best think about the home environment, the activities that people can do at home? Growing up in Western Pennsylvania with grandparents who had a farm, I spent more time digging fence post holes, slinging hay bales. So I recognize that is physical activity as well. Those are things that we say the more you can engage in these activities. We used to go and walk the trails in the fly ash dump after hours when we weren't supposed to be there. But you have the opportunity to use the environment around you and optimize it to be more active. So how can we help you do that? What may not be apparent to you, someone may be able to shed light on, right? That driveway, that steep driveway that you have. Maybe that's a couple of times up and down the driveway. That's an exercise program for you to start with. Like I said, standing on your sink on one leg. That's an exercise program for you to start with in the environment that you have.

Dr. Nicole Stout (38:50):

We are trying to work right now to build capacity around the state. and the idea there is exercise professionals are plentiful. Many of them are in your neighborhoods. Even in some of our very small rural towns, there's maybe one woman who runs a yoga or an exercise program a couple of times a week. We want to be able to develop an offer resources for those individuals to access so that they're more comfortable working with you when you're going through cancer treatments. Because if the exercise professional, isn't certain about what they can do, then they're not going to be very helpful to you. So we want to get them built up with their knowledge. We are starting to work with the Center for Active West Virginia, another place where around the state, there are resources that we can help to build. We need to build knowledge, and we need to build the resource tools that we can push out to individuals. WV Health Connection right now is rolling out a brand new resource page for cancer survivors. We have a lot of information available. When you're able to connect to WV Health Connections. We have a library of resources, and some of that is focused on exercise. But it's also focused on helping you find providers near you so that you can get the attention and the services that you need. The last thing I will direct you to is a national resource called "Move Through Cancer." This is a new initiative from the American College of Sports Medicine and there are really wonderful tools and resources online at Move Through Cancer that you can find that can give you tips on exercise interventions, exercise programs. We're starting to develop a registry so that you can go on and put in your zip code and find someone. Someone might be an exercise professional, or someone might be a patient that you can connect with that can give you insight on exercise. So there's a lot that needs to be done in developing our infrastructure here in West Virginia. Quite frankly, I would say you out there listening have suggestions. I would encourage you to weigh in and to send those along. If you are a part of an exercise group and you want more information, or if you're working with a trainer and they want more information. We are more than happy as we push these things out to develop resources and disseminate them as broadly as we can to better improve care.

Lauren Hixenbaugh (41:24):

Well, I hope our listeners feel much more knowledgeable about exercise and they don't feel like, "Exercise. I already know about." Because now I hope they've learned much more. We've certainly given them a comprehensive set of skills and resources to enhance their abilities. As we begin to wrap up today, I'd just like to take a moment and kind of revisit with our listeners some points. So if they remembered one tip out of today's podcast, what would you hope that it would be?

Dr. Nicole Stout (41:57):

One tip out of today's podcast? Exercise is safe, and it's beneficial regardless of where you are in that spectrum of cancer treatments. Remember, everyone needs something and there is someone out there who can work with you to help you devise an exercise program that's safe and beneficial for you.

Lauren Hixenbaugh (42:19):

Great. You talked a little bit about resources in the podcast. Is there anything else you'd like to mention for folks?

Dr. Nicole Stout (42:26):

Start talking with individuals if you are a member of they fitness club or you're a member of some type of an exercise group. If you or they are interested in developing knowledge and skills. I will go anywhere around the state to help to teach exercise around oncology and cancer. In fact, we're working on developing curriculum with West Virginia University Human Performance Lab. We want to disseminate that education, those tools around the state. So exercise physiologists, exercise professionals. We want to be able to help educate them about exercise interventions for people with cancer. So if you're engaging, if you are in an exercise facility and they're interested, I will come and I will do a talk for them. I will do education for them, will get materials to them so that we can help to grow and build this capacity around activity and exercise.

Lauren Hixenbaugh (43:28):

I think it's so obvious how passionate you are about this topic. I think it's wonderful. I also want to give you the resource of Living Beyond Cancer. You can visit moh.wv.gov. Or you can check out the WVU Cancer Institute at wvucancer.org. We'd love for you to join the Living Beyond Cancer Facebook group. You just go to Facebook and search Living Beyond Cancer. Living Beyond Cancer would like to thank Dr. Nicole Stout for joining us today, as well as our listeners. We hope that you'll continue to join us.