**The Role of Physical Therapy in the Lives of Lung Cancer Patients**

**Lauren Hixenbaugh:** 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 it's produced by the WVU Cancer Institute's Cancer Prevention and Control. The podcast you are about to hear was originally recorded as a part of our Screening to Survivorship series. This podcast produced such great information we decided to reshare it with our Living Beyond Cancer listeners.

The podcast features Megan Burkart an Assistant Professor of Physical Therapy at West Virginia University. As a Physical Therapist, Megan has been focused on the treatment of individuals with cancer in the acute care and outpatient settings to improve functional mobility, pain, balance, and fatigue. She specializes in outpatient services to the patients of WVU Cancer Institute throughout the continuum of care.

And Without further postponement please enjoy “The Role of Physical Therapy in the Lives of Lung Cancer Patients.”

**Stephenie Kennedy-Rea:** Hello I’m Dr. Stephenie Kennedy, Director of the WVU Cancer Institute’s Cancer Prevention and Control. Welcome to today’s podcast focusing on physical therapy for lung cancer patients. Our speaker is Dr. Megan Burkart, Oncology Physical Therapist at the WVU Cancer Institute. Our moderator is Amy Allen, Assistant Director in Cancer Prevention and Control

**Amy Allen:** Megan, can you tell us a little bit about how physical therapy helps patients with lung cancer?

**Megan Burkart:** Sure. Before you can really understand how physical therapy can benefit a patient with lung cancer. We first have to talk about what lung cancer does to the body because it causes more physical impairments, greater symptom distress than any other cancers. Some of the important symptoms are shortness of breath, fatigue, cough, pain, and insomnia. These symptoms normally occur in combination resulting in really high level of patient distress and interfere with daily activities. Patients often become inactive even before diagnosis and have a function of decline because normal daily activities make their symptoms worse. It becomes a really vicious cycle because they don’t move to control their symptoms, but that inactivity leads to more weakness and further function of decline making moving even more difficult so they move even less and the cycle keeps repeating. Treatment of lung cancer further compounds these issues. Chemotherapy can cause fatigue, numbness and tingling in the hands and feet, balance issues, and muscle weakness; the common side effects of radiation is fatigue and with surgery there is post-operative pain in the chest or shoulder and shortness of breath.

The really good news is that physical therapy can help in all these areas. We help to strengthen weak muscles, improve breathing endurance, decrease pain, and help improve the patient’s quality of life.

**Amy:** You mention inactivity and one of the most common recommendation by oncologists is to be more active. What does that mean and how does someone get started?

**Megan:** Oncologists want their patients to be more active because active patients have more treatment options available to them. They tolerate the treatments better and they have better outcomes. We know exercise alone can be beneficial for patients with lung cancer by increasing strength and endurance. But, it also decreases emotional issues and stress. Well the first two things really make sense, the second two may not be so apparent and you may be thinking how can exercise decrease emotional issues and stress.

Well, have you ever heard about runners high? Well, I'll let you in on one of the best secrets about exercise is real and don't have to run to get that high. Exercise causes happy hormones to be released into the body that can improve your mood both while you are exercising and also for hours after. The body can also release substances very closely related to morphine to help control pain and makes you feel good. Exercise can also help with one of the greatest stresses to a patient with lung cancer, which is the fear of being short of breath. The lungs have to be exercised just like any other muscle to improve shortness of breath; it is often one of the greatest barriers to starting or continuing an exercise program. When done right exercising can be done without a scary increase in shortness of breath and will improve lung function and decrease feelings of shortness of breath in the long run.

So the place to start is to define what more active means…

The American Oncologist Sports medicine recommendation for individuals with cancer is the same as everybody else. 150 minutes of moderate intensity aerobic exercise a week. For lung cancer patients, modifications have to be made based on each person's activity tolerance and slowly progress to increase over time. Translating that into normal language that means 30 minutes of aerobic exercise five days a week where you are working hard enough to increase your heart rate and breathing, but you can still carry on a conversation. So you can imagine though if somebody is already short of breath with normal daily activity then they are not going to be able to exercise for 30 minutes at a time right away. That is where modifications are important; we can further break down those minutes into six five-minute walks a day or even three ten-minute walks a day. Maybe walking is too difficult, but riding a stationary bike allows them to exercise for longer periods. Each person will be different, but we have to just figure out what their current tolerance is and make a plan to slowly improve it.

**Amy:** Could someone with lung cancer do this on their own or do they need to see a physical therapist?

**Megan:** Well first you need clearance from your oncologist to start exercising. Then it is best to get help from a physical therapist or a cancer exercise specialist. It is difficult for anybody to assess their own response to exercise and put a plan together. There are techniques that can help in identifying and managing shortness of breath that can the whole process easier and more successful.

**Amy:** So what point of treatment should someone see a physical therapist?

**Megan:** Oh at any point. Most lung cancer patients will benefit from being assessed and treated by a physical therapist (PT) despite the stage of the cancer, where they are in treatment process, and what treatments they receive. PT can help even before treatment begins to improve a patient's posture, breathing, and endurance to make recovery from surgery easier and decrease post-operative complications. Patients that have undergone chemotherapy and radiation are far more likely to have ongoing complications that effect their quality of life as compared to patients receiving surgery alone. During treatment with chemotherapy, radiation, or immunotherapy, PT can help with fatigue, balance

issues, strengthening, and help manage shortness of breath. After surgery, we can help manage pain and improve functioning of the remaining lung.

**Amy:** If a patient doesn't want to exercise, is there anything else they can do to improve their breathing or ability to do daily activities?

**Megan:** Of course. A physical therapist can teach breathing and coughing techniques, improve posture, and recommend assistance devices to improve your safety. Another member of the oncology rehabilitation team is occupational therapy. They are a good resource for patients with lung cancer to improve activities of daily living that are made difficult by balance problems, fatigue, and shortness of breath. They focus on things like bathing, dressing, meal preparation, and home and work tasks. They can recommend home and activity modifications, energy conservation and pain management techniques, to improve activity tolerance, efficiency, and make life easier. The goal of physical therapy and occupational therapy is to help their patients keep doing the things they love to do for as long as they want.

**Amy:** Does someone need a referral to see an oncology rehabilitation specialist?

**Megan:** It is best to have either an oncologist or primary care physician referred to physical or occupational therapy because it gives us the medical clearance to move forward. WVU Cancer Institute has both a physical and occupational therapist available to help you get moving and make life easier. If you live outside the Morgantown area, WVU Cancer Institute has both physical and occupational therapist available to help you get moving and make life easier. If you live outside the Morgantown area, we can still be a service to you we connect you with a local physical or occupational therapist to provide your treatment and coordinate your care.

**Amy:** Do you have any advice for someone that's trying to get more active?

**Megan:** I think the most important thing to realize is how things right now doesn't have to be the new normal. The new you can also be better than it was before diagnosis. Your body has been through a lot and you need to be nice to it. If you have been inactive then going for a 30 minute walk is hard and it's not going to feel good. In the beginning, you have to live the motto, "slow and steady wins the race", don't compare what you can do now then what you can do before diagnosis. If you start off in discover that you can only walk three minutes, don't worry about it. Three minutes today is more than you did yesterday and will make tomorrow a lot better. Active doesn't have to mean meeting the goal of 30 minutes a day right away, active means getting up, moving, and doing everything you can to make tomorrow better.

My final piece of advice is to ask for help. Getting active isn't as easy as it sounds and there is a team of people that will be happy to help you.

**Lauren Hixenbaugh:** To find out more information about survivorship resources and Living Beyond Cancer visit MOH.WV.GOV or wvucancer.org. To join our FB support group visit Facebook and search for Living Beyond Cancer. We would like to thank Dr. Stephenie Kennedy-Rea, Dr. Megan Burkart, and Amy Allen for recording this podcast. A special thanks to our listeners, we hope that you will continue to join us.