The Benefits of Physical Therapy for Cancer Patients

Guest Expert:
Scott Capozza, PT and Lou Friedman, PT

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Welcome to Yale Cancer Center Answers with Drs. Ed Chu and Francine Foss, I am Bruce Barber. Dr. Chu is Deputy Director and Chief of Medical Oncology at Yale Cancer Center and Dr. Foss is a Professor of Medical Oncology and Dermatology specializing in the treatment of lymphomas. If you would like to join the conversation, you can contact the doctors directly. The address is canceranswers@yale.edu and the phone number is 1888-234-4YCC. This evening Ed welcomes Scott Capozza and Lou Friedman, two physical therapists who specialize in working with cancer patients. Scott sees his patients through the Connecticut Challenge Survivorship Clinic and Lou focuses his time assisting orthopedic and breast cancer patients at Yale.

Chu I think a lot of people don’t really appreciate all the different types of resources that are available once the diagnosis of cancer is made and once cancer treatment is initiated. Lou, perhaps you can start off by describing for us what role the physical therapist can play as part of that multidisciplinary approach to treating patients with cancer?

Friedman Certainly, I am glad to answer that. I think it depends on at what point the first contact is made. Scott will see patients almost on a wellness issue, whereas they are coming in because they perhaps have a problem with certain activity, they want to improve their activity, exercise, and their lifestyle, and they are looking for some consultation and some guidance. In our outpatient clinic, we see patients that actually have problems. They might have problems with moving their shoulders, or lymphedema. They have seen a physician, they have a medical diagnosis and we set up a treatment plan for them. I would say one of the keys, whether it's in my clinic or when Scott gets them, is really education and guidance. A lot of patients are looking for answers. They are not quite sure what they can and can't do after a diagnosis of cancer and after their treatment, and I think one of the biggest roles we play is helping guide them through that process.

Chu In your experience, what are the main types of cancers for which physical therapy seems to play an important role?

Friedman I can answer that from our clinic. We see a wide variety, we see patients who have had breast cancer, they may have had surgery for their breast cancer and it could be any combination of issues with problems with their shoulders, or difficulty with activities of daily living. We see patients with lymphedema, which is a swelling of the arm. We also see individuals who have had ovarian and uterine cancer, and they might have issues with their legs, swelling in their legs or difficulty with their mobility. We also see individuals with head and neck cancer that have difficulties moving their neck, or moving their shoulders.

Chu Scott, what type of cancer patients do you see in your clinic?

Capozza We see patients who have had all types of cancer. Primarily, I would say we see breast cancer survivors, but we have seen survivors of leukemias and lymphomas, survivors of prostate cancer,

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and colon cancer. What we do when somebody comes in, as Lou was talking about, is I give them a lot of guidance as far as where they are and help them to design an exercise program because a lot of people didn’t exercise prior to their cancer diagnosis and now they feel that they need to and they don’t know how to start. One of the other big side effects of cancer treatment that is very prevalent in cancer survivors is fatigue, so I talk a lot with patients about how to battle that fatigue and how to get through that so that they can start living an active life. If they come into our clinic and I notice that they do have limitations in their strength or their range of motion, especially for the breast cancer survivors, then I definitely make the referral to Lou and to the outpatient clinics so that they can get the more hands on treatment that they need.

Chu Scott, in your clinic, which is the Connecticut Challenge Survivorship Clinic, have most of the patients completed their therapy already and are now dealing with the consequences, the sequelae, of either the cancer and/or the cancer treatment?

Capozza Yes, that’s well put. We work with people who are done with their active treatment; post-surgery, post-radiation, or post-chemotherapy. For some of the women who are on hormonal therapy or Herceptin, we do see them and we can see a survivor from six to eight weeks after they complete treatment all the way to 10, 15, 20 years after they have completed treatments. There really isn't a cap, so to speak, as to when we would see a survivor.

Chu Lou, in your clinic it sounds like you see patients who may have been diagnosed right upfront with their cancer and are undergoing active treatment, is that correct?

Friedman We will see individuals that are currently undergoing radiation, currently undergoing treatment, so that does force us to modify our treatment plans according to their general endurance level. They may be recently postoperative, so we can't push them too hard, we really do have to adjust our treatment plan according to their individual needs.

Chu It sounds like, just hearing the different types of symptoms that you two treat, that really almost any cancer patient, truthfully, once given the diagnosis, once they are undergoing active therapy, really could benefit from at least an initial consultation with a physical therapist?

Capozza Yeah, I would like to answer that briefly. We are seeing that more and more, and I believe that patients are advocating for themselves. Physicians are much more willing now to refer patients, not that they weren’t willing before, but it comes to survivorship. The focus used to be on the diagnosis and survival, and with the advances in care we are seeing many more survivors, and as a result of that we are seeing patients that have say musculoskeletal issues and now want to have that addressed, and also their concerns with the quality of their life having survived. We are definitely

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seeing an influx and we are seeing a willingness of the medical team all in all to refer patients to our clinic so that the patients can move on.

Chu As you may know, my area of interest has been in the treatment of patients with colorectal cancer, and now colon cancer, breast cancer, and many other cancers are becoming more of a chronic disease, a chronic illness, and then symptom management, maintaining quality of life, comes to the forefront in terms of how we begin to approach patients.

Capozza That’s very true, and when someone comes to our Survivorship Clinic, you are absolutely right, the whole idea of quality of life is important and that it’s not enough to just make it through their treatments, but once their treatments are done, people want to get back to their life and we have this idea of the ‘new normal’ and what its like to be a cancer survivor. I know that at our clinic, we also have a dietician, a social worker, and a nurse practitioner to talk about all of those different areas of need for our survivors. So its not just the physical, its also the emotional and the medical that need to be maintained, and so many people have questions about their diet as well, so its all rolled into one.

Chu Lou, in your clinic, one of the areas focused on is lymphedema, it’s kind of a complicated word, and so can you explain to us what lymphedema is?

Friedman Certainly, and it’s somewhat of a complicated concept, but I will simplify it. Essentially, lymphedema is a build up of fluid in the body tissue where it doesn’t belong. To understand that Dr. Chu, obviously the listeners need to understand fluid mechanics and I will briefly go over that. The heart pumps oxygen rich fluid to all areas of the body, every nook and cranny. The issue then is getting it back to the heart, if all the fluid came out of the heart and didn’t return, the patient wouldn’t survive long. So, it comes out one way, which is the arteries, and it comes back two ways, which are the veins and then the lymphatic system. So whatever the veins don’t bring back, it is the job of the lymphatic system to bring back. The lymphatic system has structures in it called lymph nodes, and the unfortunate part of these lymph nodes is that cancer tends to like lymph nodes. So, when there is surgery, the surgeons have to look for cancer in the lymph nodes and often times have to remove the lymph nodes to get all the disease out of the body. What that does is it clogs up the return system and that builds up fluid in the body tissues.

Chu Are there specific types of cancer in which we see a higher incidence of lymphedema?

Friedman In our clinic we see three main types, we see patients who have had surgery for breast cancer, so they would have lymphedema or swelling in the arm, the chest wall, and often times the armpit. We see patients who have had ovarian cancer or uterine cancer, and lymph nodes have been taken

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out from the pelvic area and you may see a build up of fluid in the legs. We also see a number of patients who have had head and neck cancer, and so they have what's called a neck dissection and they take lymph nodes out the head and neck area, and that will cause fluid to build up in the neck area and the facial area.

Chu Is there any way to predict which patient will or will not develop this build up of fluid?

Friedman Unfortunately not, it's one of those things that we have tried to study but it's just very hard to study. I can tell you that there are some risk factors; a person needs to maintain their body weight, infection is a risk factor, so by all means a person needs to not get an infection, they have to be very cautious about their skin care. I would say that an injury, whether it be a traumatic injury or an overuse injury, those are some potential risk factors that could produce lymphedema in a body, but we don't really have an answer that says if you do XYZ you won't get it. That doesn't exist.

Chu Once lymphedema is diagnosed in a patient and they suffer the consequences, the symptoms, and they come to see you, what are the different approaches that you will take to treat that process?

Friedman Thank you, that's a good question and it's a very global approach. We have to do a lot of different things because there really is no one thing that is the answer, and it's different for every person. We use a combination of techniques, one is called manual lymph drainage, and it's a hands-on technique where we are trying to move the lymphatic fluid out of the area that’s congested, if you will, with the fluid, and direct it back to the heart or around the area that is impaired. We will use certain types of compression, whether it is a compression garment or a wrap called the short stretch bandage. A lot of it is education, as we talked about, for preventing infections, so education of skin care, and we do a lot of education on the appropriate type of exercise. Exercise is good for lymphedema, but over exercise is not good for lymphedema. Education, as I mentioned earlier, seems to be a very important part of what we do.

Chu Many-many years ago, there was a machine that would try to pump out the fluid back into the circulation, is that still being used at all or is that kind of passé?

Friedman Well we use it in very rare case, I shouldn't say rare, but in a small number of cases. The original design of that pump was for venous insufficiency and it works very well for venous insufficiency. People tried to convert it over to use for lymphedema, and one of the problems is that the pump really will move fluid. Lymphedema tends to be protein rich, and you have to do the hands on care to open up those pathways. What will happen potentially with the pump is that you can move fluid out of the lower part of the leg but have it congested in the upper part of the limb, whether it is in the upper arm or in the upper part of the leg.

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Chu And are there any new ways that you are aware of that we can begin to identify? You mentioned the risk factors, but are there any new sophisticated technologies that might be used to identify which patient down the road will develop lymphedema?

Friedman To the best of my knowledge there isn’t. There are some new machines that look at impedance, which is electrical flow, and they look to see if one arm has higher impedance versus the other. To my knowledge that hasn’t proved effective yet. I don’t know whether that is something that will eventually be of use.

Chu Something for you to be aware of Lou, is Dr. Susan Higgins in radiation oncology is about to open up a clinical study, actually using one of these machines to measure the impedance values, and I guess its in women with breast cancer, but I think she is now thinking of opening it up for patients with ovarian cancer, uterine cancer, and maybe even melanoma because I guess they also may be at increased risks if they had a lymph node dissection. That may be something that you and Dr. Higgins and her team could hook up on.

Friedman Certainly, hopefully down the road that will show to be of value.

Chu That should be quite interesting. Let’s take a break for a medical minute. You are listening to Yale Cancer Center Answers and I am here discussing the important role of supportive care and physical therapy for patients with cancer with Scott Capozza and Lou Friedman.

Medical Minute It’s estimated that over 2 million men in the US are currently living with prostate cancer. One in six American men will develop prostate cancer in the course of his lifetime. Major advances in the detection and treatment of prostate cancer have dramatically decreased the number of men who die from this disease. Screening for prostate cancer can be performed quickly and easily in a physician’s office using two simple tests, a physical exam and a blood test. Clinical trials are currently underway at federally designated comprehensive cancer centers like the one at Yale to test innovative new treatments for prostate cancer. Patients enrolled in these trials are given access to experimental medicines not yet approved by the Food and Drug Administration. This has been a medical minute and you will find more information at yalecancercenter.org. You are listening to the WNPR Health Forum from Connecticut Public Radio.

Chu Welcome back to Yale Cancer Center Answers. This is Ed Chu and I am here in the studio this evening with Scott Capozza and Lou Friedman, both of whom are physical therapists at Yale Cancer Center and Yale-New Haven Hospital. Scott, why don’t we have a discussion about the role of exercise and physical fitness and where that fits into treating patients with cancer?

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Well I think exercise and fitness fit in with cancer patients throughout their treatment and their journey into survivorship as well. A patient that is able to do a little bit of exercise during their treatments might actually find that they recover a little bit quicker from their treatments, and I think it helps them from a mental standpoint too. One of the tough things about being a cancer patient is you feel like you lose control of what's going on in your life, and so for a cancer patient to at least be able to take control of that and say, you know what, I am still going to try to go out and try to go for a 20 minute or 30 minute walk or something along that line, then I think that empowers the patient a little bit more and it helps them mentally as well as physically to get through their treatment. And then as the cancer patient makes that transition into cancer survivor, post treatment, its very important to continue with exercise and fitness because you want to be able to reduce the risk of recurrence and try to get back to the way your life was and help get rid of some of those side effects from the chemotherapy, radiation, or surgery. It helps with circulation and overall body healing, and maintaining your weight, which are all very important things to do. That’s why exercise is such an important part of the cancer process.

Its interesting that you mention being physically active as a cancer patient, exercising, really has a positive impact on ultimate prognosis. This really is an important issue for listeners out there to take home.

Absolutely, and as cancer patients can attest, obviously there are going to be some days where the cumulative effects of chemotherapy will catch up to them, or the cumulative effect of radiation will catch up to them, and there will be some days where you wont be able to exercise, or based on the surgery that you had or if your levels are really low. And that’s a conversation that the patient has to have with their doctor about whether exercise is safe, and that sort of thing. But if your doctor says, yeah you are okay to do some form of exercise, then I think it helps with the body healing itself from the surgeries, from radiation, and from chemotherapy, and then also the mental aspect of it as well.

Scott, maybe you can help our listeners with respect to what type of physical exercise we are talking about? Is it strenuous exercise that you would see people out in the gyms doing, or runners?

For most cancer survivors the gold standard is to try to do something five times a week, and that can be walking at a good clip, walking at a pace where you are able to elevate your heart rate and maintain that elevated heart rate. You can also do biking, swimming, or some running. We don’t necessarily need to have people go out and train for the Ironman Triathlon or for a marathon to that extent, but a combination of cardiovascular work is really good and also a little bit of strength training as well, especially for some women who are put on hormone therapies that put them at risk for osteopenia and osteoporosis. They want to maintain good bone strength, so weightbearing

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activities like walking are good, and then strength training with the upper body is good to maintain that bone density to help them as they go through.

Chu How about the case where a patient is undergoing active chemotherapy, and as you mentioned earlier, a lot of those patients will experience fatigue, so how do you get them to do maybe not the strenuous exercise, but to do some form of exercise?

Capozza When patients are going through chemotherapy they will figure out during their cycle when their good days are going to be and when their not so good days are going to be; when those cumulative effects will catch up. So on those days where they know that they are going to be feeling okay, it may be as simple as writing it down in their daily planner, or putting it in their planner on their BlackBerry or iPod, or whatever it might be. If you write it down, it then holds you a little more accountable to go out and exercise, even if it is just a 20 or 30 minute walk. Maybe you contact a friend, family member, or a neighbor to say, hey, you know what, I really need to go for a walk today but I really need your help, I need your encouragement to help me get out the door, so lets meet at 3 o'clock or 4 o'clock, and lets go do that. Eliciting the support of family and friends is a really good way to keep you honest and try to help you stay on task with that.

Chu Again, these recommendations should hold for everyone who has a diagnosis of cancer. I am sure there are some listeners out there who have cancer, have finished their treatments, and prior to that weren’t very active and now are asking, how can I become physically fit and exercise like you are suggesting?

Capozza And that’s one of the biggest things that I see at our Survivorship Clinic, people who did not exercise prior to their cancer diagnosis and then they go through their treatments and they realize that they don’t want to go through this again, and they want to be able to prevent a recurrence and get back to as normal of a life as possible. They realize that exercise and nutrition are such important components of that, but they don’t know how to start because they didn’t have that experience previously. That’s one of the things that we can do at the Survivorship Clinic, we give them some counseling and help design an exercise program for them so that it helps them move forward from there.

Chu You have a very interesting perspective because you are a cancer survivor.

Capozza I am.

Chu I understand that you have now hit the 10-year mark, so Congratulations.

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Capozza: Thank you.

Chu: That really is a tremendous accomplishment. So you have a very interesting perspective, one as a cancer survivor, but also as a physical therapist. Can you tell us a little about that?

Capozza: I was diagnosed with cancer when I was 22 and I was in graduate school for physical therapy, and I was actually a runner. Previously, I ran competitively cross-country and did track in high school and college. So I did exercise previously to my cancer diagnosis so when I was diagnosed it really took me by surprise because I didn’t think that I would ever get cancer because I ran so much and I remember after surgery my doctor said you can’t run for six weeks afterwards and he said allow your body to heal, and unfortunately, I didn’t listen to him and I started running after four weeks. I remember during my first consultation with my oncologist for chemotherapy, he sat me down and was talking to me about the three drugs I was going to be on, and that I was going to lose my hair, and I would be nauseous, and here are all these side effects, did I have any questions? And my first question to him was, can I still run? And I don’t think that a lot of patients had asked him that question before because the look on his face told me that I took him by surprise, but I knew for me, physically, I needed to do it in order to heal and maintain that normalcy that was part of my life. I knew I needed to do it mentally too because I needed to prove to myself that I wasn't losing the fight against cancer, and so I think I have taken that perspective and I have tried to bring it to my patients at the Survivorship Clinic and tell them that, listen, anybody can do this on some level. Like I said, you don’t have to be a marathon runner, you don’t have to go out and bike 100 miles every single day, but to be able to do something empowers you as you go through your battle with cancer.

Chu: Terrific. And as you have mentioned, you are a key member of the Connecticut Challenge Survivorship Clinic and in that clinic patients will see different individuals, a nutritionist, an exercise physiologist, a physical therapist, yourself, social workers, and a physician, and then at the end of that visit, a treatment summary is prepared. Tell us what goes into that treatment summary?

Capozza: What goes into the treatment summary is all four other disciplines; the nurse practitioner, the social worker, the dietician, and myself. We write our narratives, we write up our plan of care, so to speak, and its all formulated together into one document which is then sent to the patient and can also be sent to any and all of the patient’s physicians, the primary care physician, oncologist, radiation oncologist, whoever the patient wants us to send that information to, and so that is a hard copy that the patient can have and it’s a nice little review of what we talked about. Then, as part of our clinic, we have a two-month follow-up and a four-month follow-up, so it gives us an

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opportunity to check back in with the survivor and the survivor to check back in with us to say, hey, you know, two months ago we talked about starting the walking plan and going to the gym once or twice a week, how is that going? Is that going well, or is that not going well? Then we can brainstorm on further ideas to help them through.

Chu  Great. Let’s get back to Lou here. One of the complaints that I hear quite frequently from our cancer patients is back pain, and that could either be because of the cancer or because of benign causes, and I am just curious, how do each of you approach patients with back pain and what are kind of the general approaches that you take to try to help to relieve that symptom?

Friedman  In my role treating orthopedic patients, we see a lot of back pain and I actually have not seen a lot of individuals in my clinic with back pain related to a cancer diagnoses. I can answer that a little bit just from a general back pain perspective, and back pain is one of those things that really fits into what we have been talking about here today, because one of the keys for back pain is exercise. Looking at the right amount of flexibility in the body, the right amount of strength of the abdominal muscles, tightness of the legs and hips, certainly can produce back pain, often times its our postures that we maintain hours on end without reversing that posture. I would imagine that from that perspective, if it’s musculoskeletal, it would really fall into the same category as general orthopedic back pain.

Chu  I have to say I had disc disease many years ago and the alternatives were surgery or physical therapy. Needless to say I opted for the intense physical therapy and it was really quite remarkable how doing all of those various exercises that you just mentioned, probably within two months, the back pain and the paresthesias disappeared.

Friedman  In my early 20s I hurt my back at work, and this was before I was a physical therapist, and lucky for me I learned how to manage it on a conservative basis. I can tell you that if I go four or five days without doing my specific back exercises, my back will start to hurt and if I can keep on it I can keep it completely at bay and do just about anything I want to do.

Chu  It’s amazing how quickly the time has gone, we have got about 60 seconds, what final piece of advice can you give to our listeners out there who would like to take that first step in becoming more active and improving their overall health, but need some urging?

Capozza  As you have gone through your cancer treatment and you are a survivor now, you need to look at that opportunity to say, this is my second chance to really do something good here, and so if you are looking to get into a fitness program or start exercising, there are programs out there like our Survivorship Clinic to help you with that. If you do have more physical side effects from your treatment such as lymphedema, scar tissue, or limitations in range of motion, then that’s a great

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opportunity for a physical therapist to work with you and really get their hands on you to help you through that.

Chu Great. You have been listening to Yale Cancer Center Answers and I would like to thank our guests this evening Scott Capozza and Lou Friedman for joining me. From Yale Cancer Center, this is Ed Chu wishing you a safe and healthy week.

If you have any questions or would like to share your comments, you can go to yalecancercenter.org where you can also subscribe to our podcast and find written transcripts of past programs. I am Bruce Barber and you are listening to the WNPR Health Forum from Connecticut Public Radio.