

Scott Redding: Welcome to the Three P's of Cancer podcast where we'll discuss prevention, preparedness and progress in cancer treatments and research. Brought to you by the University of Michigan Rogel Cancer Center. I'm Scott Redding. We're here with registered dietitian Danielle [Cressis 00:00:16] to talk about nutrition for cancer prevention and during cancer treatment for patients. Danielle is one of the team of dietitians of the Rogel Cancer Center. They provide resources for cancer patients and their caregivers to help maintain a healthy diet during and after cancer treatment. Welcome Danielle.

Danielle: Thank you for having me.

Scott Redding: I'm going to just cut to the chase. What can I eat so I don't get cancer?

Danielle: So there's lots of information that's out on the Internet and it's hard to get a good answer for that. Ultimately it does boil down to probably most of us know that we need to be doing; eating lots of fruits and vegetables, limiting our saturated fat and making sure that we don't get too much of any one food. There's lots more specifics when it comes to cancer prevention. There are lots of phytochemicals in the fruits and vegetables that we eat so that's the reason why we want to eat more of them, five to nine servings per day of fruits and vegetables. And each different color group tends to give you a different anticancer nutrients. So trying to get a rainbow of color can be very helpful in making sure that you get all of the phytochemicals or the anticancer nutrients that will help you in cancer treatment.

When it comes to your fats there are good for you fats and then not so good for you fats. Your good for you fats are your mono and saturated fats and your omega 3 fatty acids. So those would be your nuts, seeds, olive oil, canola oil, avocado and then your fatty fishes, flax seeds would fall into that category, chia seeds, hemp seeds, those are big things right now but they all fall in that seed category.

The not so good for you fats. There's nothing wrong with saturated fat but too much saturated fat is bad for us. So making sure that you're not exceeding that 10 percent of your calorie intake from saturated fat, maybe a little bit less if you do have heart disease and avoiding foods that are made with trans fats. So if you look on a label it should tell you the amount of trans fats that are in there but if it has less than 0.5 grams in the serving size that they have listed it will say zero. So look on the package ingredients, look for things that say hydrogenated oil in there, that would be a trans-fat, a man-made fat and that's even worse than our saturated fats.

Lastly would be portion control. Carbs. There is nothing wrong with eating carbohydrates but we want two thirds of our carbs to come from whole grains because whole grains do have those phytochemicals that fruits and vegetables have, actually different phytochemicals. So they also have anticancer nutrients to them. So whole grains as much as possible but they should also only take up

about a quarter of your plate. So when you go to Olive Garden and you get this big huge pile of pasta, that's not portion control of those carbs, that can have some issues with potential diabetes risk in the future, blood sugar spikes that go along with that.

Scott Redding: What about the breadsticks at Olive Garden?

Danielle: So we will potentially talk about it later on but I do like to use the plate method. So Choose My Plate is a very common one. One that's specific to cancer is the New American Plate so if you Google that, you can say New American Plate, it will show you what a plate should look like. A quarter of your plate should be carbohydrate. Two thirds wholegrain as much as possible. A half of your plate should be fruits and/or vegetables. And then the other quarter of your plate should be your protein and lean protein as much as possible, maybe even some beans and legumes which also have some phytochemicals that your meats wouldn't necessarily have.

Scott Redding: A few times you've referenced phytochemicals. Can you explain exactly what that is?

Danielle: Sure. So phytochemicals are nutrients that are in our food that are different than vitamins and minerals which most of us know about. But they're very similar in the fact that they have additional benefits within our body that help with cancer prevention. So phytochemicals they can cause natural cell death, they can decrease inflammation, they can do lots of other things within the body that have anticancer properties. And the phytochemicals that we get in our foods do come from plant based foods, there are not any foods that are not plant based that don't have the phytochemicals in them but they have to be whole foods. So if you were having apple juice you wouldn't necessarily be getting all the phytochemicals you would from a whole apple with the peel on it.

The other benefit of the phytochemicals is they do come from any plant based product. So it does come from any wholegrain product, it comes from any beans, legumes, it can come from nuts, it can come from any of your fruits and vegetables, soy products as well have some phytochemicals in there as well.

Scott Redding: So you're still kind of talking about prevention for cancer and diets, are there any fad diets out there like right now like keto, Atkins, I recently saw a commercial sounds like the Miami Diet is coming back, you hear a Whole 30. Are those safe for you? Will that help prevent cancer? Will it help with weight loss?

Danielle: OK. So there are a million different diets that are out there and a lot of them have some basic premises in there. keto, Atkins, the Paleo diet, those are common ones that are out there and they're premise is low carb, higher protein content. The keto's much more extreme, at least the traditional keto, 3 to 1 or 4 to 1 diet, which is really 90 percent fat, only about 6 percent protein and a little

teeny bit of carb. But all of them go on the premise that you want to eat more protein and vegetables, less carbohydrates to keep the blood sugars more level. That whole premise is to make sure that we are not feeding the cancer with the glucose that we have in our system.

There are other diets that we can do that would get the same benefit. What I call a strategic eating plan where you moderate the carbohydrate intake and choose the right carbs which are your whole grains, your whole food products versus refined products, doing lots of fruits and vegetables for their fiber content which tends to modulate the blood sugar, makes it slower released and then making sure that you do have protein and healthy fats in there as well. The keto, the Atkins, the paleo can work very well but they also are very restrictive in the fact that they take out a lot of foods that we just talked about that have phytochemicals in there. The keto, the Atkins and the paleo all would restrict most of your whole grains. Some of them restrict most of your fruit because they're too high in sugar. So then we would lose the phytochemicals that we were just talking about.

When it comes to other diets that are out there, ultimately when it comes to weight loss specific, all the diets when you look at them it's lower calorie intake is what results in the weight loss. And when a lot of the diets that are out there take out certain food groups they tend to be the food groups that we can easily snack on and so that's where we lose the calories. It's hard to eat a ton of meat throughout the day, it's not always convenient to grab it and you just don't want to overeat with it when it comes to a ton of meat.

From the anticancer standpoint these can work because they do modulate that blood sugar and there are some cancers that can use insulin and insulin-like growth factor to help themselves grow. But like I said that strategic eating plan can work just as effectively and give you more of a liberalized, I can live with this, kind of diet. And then you'd know that you were getting those phytochemicals in that would also give you some additional benefit.

When it comes to a cleansing diet there's lots of varieties with that. Some people say a vegan diet can cleanse your body, I have no problem with that. Other cleansing diets where they're telling you to take things to help you go can be problematic. Cleanses where they actually clean out your colon that can actually potentially cause death if it's not done correctly.

Scott Redding:

What about apple cider vinegar? Been hearing a lot about that too.

Danielle:

So the apple cider vinegar when it comes to the research there is some promising information with it but I wouldn't necessarily be taking large portions of it. I do think vinegar can be a great base for our marinades, can be nice sauce ingredients, but I don't necessarily think it's something that you would be taking by the cup full. It can be a little bit hard on the stomach. And that's one thing to

keep in mind, everything in moderation. Not necessarily extremes are the good way to go.

Scott Redding: I eat various different kinds of foods just like everyone else but one thing that I probably drink a lot of like many Americans is coffee. And I've heard that coffee can help prevent cancer, is that true?

Danielle: So there are phytochemicals in coffee. The main thing that I pick on when it comes to coffee is the caffeine amount as well as the extra stuff we tend to put in our coffee. So coffee itself there's actually some cancers where coffee has been shown to decrease the risk. The actual number of cups I haven't necessarily paid attention to but it seems to be three or less. It's not a massive amount that you should be drinking.

The caffeine just know we usually have a caffeine threshold so most people can tolerate two to three cups of caffeinated beverages without it having that diuretic effect where you pee off most of what you took in at least from a fluid standpoint. So watch out if you are one of those people who likes to have four or six, twelve cups of coffee, that's all you drink. You're not going to be getting well hydrated when you're doing that.

The other thing to keep in mind is caffeine is a G.I. stimulant so if you do tend to have a tendency to have G.I. issues whether it's ulcerative colitis or just some irritable bowel or during cancer treatment you're not tolerating the treatment well, nausea and diarrhea can be worse when you have large amounts of caffeine in the diet.

The last thing would be the what we're putting in it. So if we're doing a lot of cream or sugar flavorings and additives that's where we add a lot of calories. And a third of the cancers that are out there are weight related so anything that we can do to modulate the calories that we're taking in can be beneficial.

Scott Redding: [inaudible 00:11:16] brought up coffee but I know that you had highlighted earlier a handful of things, nuts, legumes. Are there other specific maybe vegetables or foods that people should really try to make sure that they're incorporating? You hear about lycopene and tomatoes and those things and you hear that just like you do with whole wheat, you know "This is whole wheat and it's good for you." "Ketchup, it's got lycopene in it." But are there specific things that people could make sure that they maybe do try?

Danielle: So there's lots of foods that are being sold as the super foods that are out there like kale is a big superfood in the cruciferous vegetable category and there's very strong phytochemicals that are in that category. But I have some people who because kale is so strong they don't like it but they're forcing themselves to eat it. Just know broccoli, cauliflower, kale, Brussel sprouts, I mean there's lots of foods that ... cabbage, that also fall in that category. So yes while you might be able to get away with a smaller portion of kale to get the same nutrients in, a

slightly bigger portion of broccoli would get you the same benefits. So even though it's ... blueberries is another superfood that's out there. But maybe you don't like blueberries. You can get it from any other berry, it's just not going to be quite as rich and condensed as you would have in your blueberries.

When we're talking about nuts a lot of people will ask me which are the nuts to go to. So there is kind of a range from your walnuts and your ... your walnuts and your almonds are kind of at the top when we're talking about the good fats that are in there and some of the omega 3 fatty acids, peanuts and cashews are down at the bottom and there's lots of nuts in between that are kind of in the middle. So if you don't like walnuts and almonds, those are just not your favorite, that's fine. Know there's other options that are there. And think about what you're using them to replace. So if you were going to eat potato chips and you grabbed peanuts instead well at least with peanuts you're going to get healthy fat and you're going to be getting some fiber and some protein in there that you wouldn't get from your potato chips and you still get that same salty taste. So it's still even though it's low down at the bottom it's still a better choice than grabbing potato chips.

Scott Redding: So no pot of coffee and no peanut butter sandwiches all the time, just in moderation?

Danielle: Yes, moderation is the key. There is nothing that you can't have on an anti-cancer diet. It's how much and how often you have it.

Scott Redding: We've been talking about prevention and ways that we could maybe prevent cancer. What does a healthy diet look like if you're in treatment?

Danielle: So there's what I call two levels of cancer nutrition. When you're in the middle of treatment you do have to modulate things according to how you're feeling. So level one is you've got to get calories and protein in your system because the food that we eat is the fuel that we gas our body with. If you are not getting that basic fuel then I worry that we're not going to be utilizing the chemo regimen or the radiation or you'll recover as quickly from that surgery because you're not getting the gas in the car to get you from point A to point B. So calorie and protein intake is super important.

If your appetite's great, then I want you to do what's called level two which is the things we talked about. You follow the exact same things that we would for a cancer prevention diet for preventing cancer recurrence and keeping you strong during treatment. Lots of fruits and vegetables, reducing the carb portion, doing more whole grains, lean proteins and adding healthy fats in to help you maintain your weight.

If your appetite is poor, if you're having a lot of problems with nausea or diarrhea or other GI just discomfort, those high fiber foods that we talked about, that plant based diet might need to be adjusted a little bit. Maybe

instead of a whole apple, you peel the apples so that you take out some of the really rough fiber that's a little bit harder to digest. Maybe you cook your vegetables and do a smaller portion size instead of having a big raw salad which will be a little bit harder on your stomach.

If you're having a hard time maintaining your weight because you just have no appetite or things aren't sitting well on your stomach then your focus is on calories. So maybe your carb portion does get bigger. Maybe your protein portion does get bigger and your veggie portion does get a lot smaller. And then this is where the healthy fats can be really helpful, lots of olive oil on things, cooking everything in olive oil, putting avocado on top of everything, if you can tolerate it, nuts and seeds are a great way to bump up the calorie content too.

But ultimately it's weight maintenance during treatment which is another common thing that people bring up. Most people when they come and see me they're like "You know I would love to lose weight. I don't feel like eating. Is this an okay time to do that?" Typically it's not. Especially if you are having those symptoms that are making you not want to eat. If you just go "This is a great time to lose weight. I don't feel like eating anyways. I'm just going to go on a non-eating diet." Then you're going to have that lack of gas, the energy that you're putting into your system to fuel that marathon that we're asking your body to run with chemo or radiation.

The other thing too is when you're under stress you're more likely to break down muscle mass than you are to break down fat mass. So people who lose weight during treatment you'll hear them say I'm really weak or brushing my teeth takes more time or walking up the stairs it just really makes me get out of breath or I'm really tired, it takes a lot of energy. And that's that active material within your body that burns calories but it's also what helps you be able to tolerate this and be able to do your daily living. So if you lose weight during treatment you're more likely to lose the stuff that you don't want to lose and you tend to maintain say that beer gut or the saddlebags. But you lose muscle mass and that's not what you're shooting for.

Scott Redding: So you talked about chemo and radiation treatments. What if you have surgery? How does that affect that from a standpoint of any kind of surgical treatment?

Danielle: Sure. Surgery in general is just like chemoradiation in the fact that your body's doing extra work on the inside to help heal itself. So you do need more calories and more protein. Depending on the type of surgery that you have it might have minimal side effects on how you're feeling. If it's a GI related surgery, we took out a portion of your GI track or if it was just a major surgery and you're very drained from it it might be a little bit harder for you to eat. But know most people need at least 300 to 500 extra calories per day on top of what they were eating before to maintain their weight to maintain after surgery for about a six to eight week period of time. And again, weight loss is not the goal then because you're running this marathon, you need the calories and that protein to

help heal yourself on the inside. If you're not taking those calories and protein then there is evidence, there's research out there that shows you're more likely to get infections, you're more likely to take longer to heal, have more problems with the wound actually coming apart once it's kind of started to heal. So calories and protein are super important to be able to help you recover faster and get back to your normal life.

Scott Redding: So let's say I'm done with my treatment and I'm in remission or I've now transitioned over to a primary care setting. Does my diet change or do I need to maintain at a higher level than maybe what I was before my treatment started?

Danielle: So when it comes to diet for preventing recurrence it really is the same diet as preventing cancer in the first place. So it's still that plant based diet that we've talked about with focus on doing lean proteins, watching the carb content and weight maintenance is a big part since a third of the cancers that are out there are weight related. This would be the time that if you are overweight, you have a BMI of 25 or higher, it would be a great time to focus on weight loss. So that would be the only big change from during treatment versus after treatment.

When it comes to weight loss that Choose My Plate or the New American Plate is a great way to work portion control and most people who set up their plate like that do tend to have weight loss because most of us don't make half our plate vegetables. The one trick would be just don't put a ton of butter and cheese on top of your vegetables because then you kind of negate the low calorie content that's in there. The other part to keep in mind is there is some information out there for your disease state. So like if you're a breast cancer survivor or if you're a prostate survivor or head and neck survivor or whatever, there is information from the American Institute of Cancer Research and the World Cancer Research Fund that if you just Google continuous update report and AICR you should be able pull up a 100 and some page report for your type of cancer. But the bonus is on usually about page five. There is a table that kind of summarizes all of the data that's in there. So with like breast cancer it will focus on reducing body fat, physical activity especially vigorous physical activity is very beneficial, weight management, and then there are a couple of diet related things that could be helpful too. So you could look up the stuff that is recommended for your type of cancer, what can you do to prevent that from coming back.

Scott Redding: What was the site where you'd find that again?

Danielle: So what I tend to do is just put in AICR, American Institute of Cancer Research, and continuous update report and then it will pull up the reports and you can pick your disease state.

Scott Redding: You talked about a lot of different kinds of foods. Where does like milk and dairy fall in into the diet aspect?

Danielle: So your milk and your dairy products are great sources of calcium and they're fortified to have a good amount of vitamin D at least in the milk product so they can be very helpful in maintaining bone health. Bone health can be super important depending on certain therapies that you're taking because you can have more risk with bone loss with them. The one thing to keep in mind is it's that moderation piece. When it comes to say prostate cancer they have found that too much dairy intake can be problematic. So usually more than three servings per day. With breast cancer it's encouraged to get dairy in. So even though on one side it could be too much is a bad thing, on the other side they found that the more dairy you take in the better it is when it comes to breast cancer.

So usually the typical, what we recommend, is two to three servings of dairy products a day. That will guarantee that you get the calcium that your body needs which is about 1000 milligrams depending on where you are in your life span. The vitamin D though, you're probably gonna be better off getting it from a supplement because you'd have to drink eight to 10 cups of milk a day in order to get the Vitamin D your body needs or to eat a ton of egg yolks or sardines. But your dairy products do play a good role in there.

They are half carb, half protein. So when you're looking at the plate method they could technically be in either the carb or the protein category. So if you wanted to have the dairy be the protein on your plate then that's perfectly fine. You could have pasta to go along with say cheese that you were having on there, that could be your protein and your carb content. And you could do it the other way as well. If you wanted it to be a yogurt for your carbohydrate and then your protein was going to be nuts that you were putting on there and then fruit, that could be your meal base that way.

Scott Redding: So basically mac and cheese counts as carbohydrates and protein.

Danielle: And healthy fat.

Scott Redding: And yogurt with granola probably falls underneath that same kind of aspect.

Danielle: Yep, you could count ... if you had yogurt and granola then the granola would be the carb content and the yogurt would be the protein. Most definitely.

Scott Redding: Well Danielle I really appreciate the time today. As we wrap up what would be the key takeaway that people would have from our conversation today?

Danielle: So the key thing and I think I've probably said it a few times today but the key thing when it comes to diet is there is nothing that you can't have. There is nothing that is truly a bad food. There is nothing that is good and you can eat all of it that you want. It's moderation. You want to make sure that you make the best choices too. So I believe in the 80/20 rule or some people say the 85/15 rule but 80 percent of the time you do what you know you're supposed to be

doing, 20 percent of the time you don't kick yourself when you fall off the wagon, you just get back on. So moderation and do the best that you can as most often as you can and you'll be doing a lot better than the majority of other people out there.

Scott Redding: Great. Well thank you again for your time.

Danielle: Thank you.

Scott Redding: Thank you for listening and tell us what you think of this podcast by rating and reviewing us. If you have suggestions for additional topics you can send them to [cancercenter@med.umich.edu](mailto:cancercenter@med.umich.edu) or message us on Twitter @UMRogelCancer. You can continue to explore the Three P's of Cancer by visiting [Rogelcancercenter.org](http://Rogelcancercenter.org).