

Maura Harrigan, RD, Nutrition for Cancer Survivors December 27, 2009

Welcome to Yale Cancer Center Answers with Dr. Ed Chu and Dr. 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, Francine welcomes Maura Harrigan. Maura is a nutritionist for the Connecticut Challenge Survivorship Clinic at Yale Cancer Center.

**Foss** How can nutrition help to ease the burden for cancer patients?

**Harrigan** Well, food is sustenance, food is comfort, and as we know, food is love. So, emotionally and physically, food eases the burden. Nutrition plays a vital role across the spectrum of cancer survivorship beginning with active treatment, recovery, and through the transition to health maintenance and wellness care. Each of these phases has a different nutrition need and challenge.

**Foss** What role does nutrition play in planning cancer treatment?

**Harrigan** Actually, a very important one; it is all about having a good offense entering treatment. As you know, addressing a person's nutritional needs before treatment starts will help that person better tolerate this acute phase of their care. The goal is to prevent deficiencies and preserve lean body mass. First, there must be an assessment of the person's current nutritional status. Are they well nourished or are they entering treatment already undernourished? Their energy and nutrient requirements need to be determined. Now, the question is, can the person meet these needs through eating their usual foods? There are many common symptoms such as fatigue, anorexia, and pain that may interfere with eating. Then there are nutritional problems related to the treatment itself that must be anticipated. Surgery, radiation, and chemotherapy can cause side effects such as nausea, vomiting, changes in taste, or smell, or in bowel habits. Again, these symptoms may interfere with a person's ability to eat. So, temporary adjustments to the choice and preparation of foods, small frequent feedings, and adding supplemental nutrient dense drinks may be helpful, but sometimes even that may not be enough and there may be a need for temporary use of tube feedings to prevent weight loss and ensure adequate nutrient intake.

**Foss** When a patient is diagnosed with cancer and they start thinking about all their treatment and maybe have anxiety about all of that, they oftentimes are not focusing on their nutrition, should all patients see a nutritionist at the very beginning when they get a diagnosis of cancer?

**Harrigan** That would be ideal to have a registered dietitian come and speak with the patient and their family members and also consult with the oncologist to determine the best pro-active actions to take before entering treatment.

**Foss** And oftentimes patients have symptoms that you mentioned like fatigue, anorexia, etc., and many of those symptoms are related to cancer itself. How does a patient know whether their diet is playing a role in that? Again, is this something that is going to require a careful nutritional assessment?

**Harrigan** Yes, what we do as dietitians is take a careful diet history from the patient

and we could ferret out with the issues for the patient and discuss it with their family. Foss So, even patients who think they are on a so called 'good diet' may potentially have issues with their diet and their intake? Harrigan Yes, because how you define a good diet varies with each person. Foss What about the issues with respect to the specific kinds of cancer that a patient has, say breast versus colon for instance? Are there different dietary recommendations? I know we have heard things in the lay press about the role of potentially fats in some of these cancers and soy as well with respect to treatment. Are there specific diets that you recommend for specific kinds of cancer? Harrigan Well, I know that research is trying to determine how best to target nutrition therapy to specific cancers and some examples are a low-fat diet, and limiting trans fat and saturated fat, is thought to be protective in breast and prostate cancer, also a diet high in fruits and vegetables is considered protective for lung, oral, esophageal, stomach, and colon cancers, but what I would like to add here is that eating well in our culture is very difficult to do even without the challenge of the cancer diagnosis, and what is convenient and accessible is high fat, high salt, high sugar, and high calorie foods. So assessing a person's customary diet prior to diagnosis is helpful in determining the diet changes to target and also to assess the person's readiness and ability to change. So, I guess what I am trying to say is where research is going is ideal, but you have to really look at where the person is starting from. Foss Many of us then really do not have enough fruits and vegetables in our diet as it is. Harrigan That is so true. The FDA 5-a-Day Program, which I'll ask people to do, is eat two servings of fruit a day and three servings of vegetables to be the cornerstone of our diet. Only 25% of us actually make that goal in a day, and the number one vegetable is potato, which is diced, fried, and salted so it becomes French fries.6:11 into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> Foss I have heard ketchup, at least in school systems, ketchup appears to be a vegetable. Harrigan I have to say, one of my daughters counted that as a vegetable growing up. Foss One interesting thing after just having come back from the far east and seeing how folks there eat, is it's really, really clear that they do eat more natural foods and more vegetables, and certainly in those parts of the world, the risk of cancer is a lot less than in the United States. Harrigan Yes, and that's really the diet that we are promoting, a plant-based diet where the majority of your plate, if you look at it, should be filled with plant foods, fruits, vegetables, whole grains, and then you are actually using meat as a condiment. I try to get people to visualize what a healthy meal looks like. It is predominantly filled with fruits and vegetables and grains, and meat is just a condiment, not the centerpiece of the meal. That mimics more the diet that you were seeing in the other cultures. Foss You talk a lot about trans fat and certainly this is a buzzword. Nowadays, a lot of our products are labeled as 'no trans fat'. Can you talk about the role of trans fat and saturated fat? Is this mostly coming from meat or is this in other foods that we are eating as well? Harrigan The saturated fat does come mostly from animal sources, so that would be red meat, processed meats, and also full fat dairy products. Now the trans fats,

I find are more in processed foods is where they do partially hydrogenated oils as an additive. So, something like a Pop-Tart would be a food item that would have a trans fat in it. Foss What about the fats in nuts? A lot of people say, well I know nuts are healthy, but they have a lot of calories and a lot of fat. Harrigan Nuts can be a hard sell for people for just that reason. Nuts do contain a lot of fat, which happens to be concentrated in calories, but it is a type of fat called a mono-saturated fat, which is actually quite heart healthy and I find nuts to be a very useful food for cancer survivors throughout their day to snack on because it is nutrient dense, meaning it packs in a lot of calories and nutrients in a very small package. So, for someone who is having a hard time keeping up their food intake, nuts are a very useful food. Foss You talked about the role of supplements, these nutritional drinks that we give to patients. Can you talk about those, the ones that are medically prescribed, and then some of the other ones that are available in the drug store? 9:14 into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> Harrigan Well, the ones that are medically prescribed are ideal in terms of their composition of carbohydrate, protein, and the types of fat in it. Preparations that are found over the counter in the store, particularly high protein powders, can be detrimental to people and misused, though there is one product that I find that you can get in the grocery store that works beautifully, which is an old standby that we have grown up with, which is Carnation Instant Breakfast mixed with organic skim milk. That is a wonderful supplement and it is inexpensive. Foss And we tell a lot of patients that and they do not actually believe us, so I am glad that we are hearing it from a nutritionist. What about the whole issue of control over your diet? Once you have a diagnosis of cancer, you already have lost a lot of control in your life. How important is it for people to start really controlling their nutrition at this point in their care? Harrigan It is very important because the person can feel empowered and it gives them an active role in their care, and it is also a wonderful way for family and friends to be supportive and help by assisting with food shopping and preparing meals. Food can be a wonderful focal point for healing and nurturing in this process. Foss In terms of family and support folks, knowing what the right foods are, are there specific guidelines or are there any handouts that you recommend? Harrigan That is a good question because there is a lot of nutrition misinformation out there. Where you get your nutrition information from is very important. There are some wonderful resources that are out there available to patients and families. There are a few websites that are actually quite terrific, and one is the American Institute for Cancer Research, that is [www.aicr.org](http://www.aicr.org), and it has wonderful nutrition information and you can actually sign up for an E-mail recipe service so they E-mail you nutritious recipes every week, and I look forward to that E-mail every week. Foss That sounds great. Actually, I know that organization because I used to review grants for them and they really are studying specifically the effects of natural substances in foods with anti-cancer properties, as well as the benefit of things like omega-3 and omega-6, which were studied for a number of years and shown to have specific benefits for a lot of diseases. I

think that is an excellent website. Talking about omega-3 and omega-6, can you mention something about fish oil, this is something that we have all heard about and it seems to be good for a lot of different things, is it good for cancer? Harrigan Yes, that happens to be one of the supplements that is actually panning out to have a benefit. Omega-3 has been processed out of our food supply, so there is a real deficiency of omega-3, 12:34 into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> and it is the balance of omega-3 with omega-6 that seems to be out of whack. So, supplementing with omega-3 I feel is a very good idea and I usually recommend 1000 mg a day. There are food sources of omega-3, which are salmon and also certain eggs are fortified with omega-3, and the way they do that is they feed flaxseed to the chickens. You can also add flaxseed to your food, grind it up and mix it into soups, stews, or sprinkle it on your cereal, and also taking a fish oil supplement. Foss Is there any difference with respect to the omega-3 and omega-6 balance in the fish supplements that are out there? I know that there are a lot of different ones out there and I know people have said that some are better than others. Harrigan You would have to read labels, and that is something I do recommend for people. You do have to look at the brand and put your glasses on and read the fine print and look for the amount of omega-3 that is in the product. Foss Of course, it is also useful if people eat the fish. Harrigan Well, I will make this point over and over again, find it in food. It is much better to find the nutrients in the whole food source than in the supplement. Though we are always looking for a magic bullet, the research just is not panning out in identifying a particular supplement that will prevent cancer, or be the cure we are looking for. The real power is in the power of whole foods and the nutrients in the food are packaged by nature to actually act in synergy and provide a potency that is not found in any supplement. Foss Thank you for that information and I think we should all heed that. We are going to come back after a short break for a medical minute. Please stay tuned to learn more about nutrition and cancer with Maura Harrigan. 15:24 into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> information at [www.yalecancercenter.org](http://www.yalecancercenter.org). You are listening to the WNPR Health Forum from Connecticut Public Radio. Foss Welcome back to Yale Cancer Center Answers. This is Dr. Francine Foss and I am joined by Maura Harrigan to discuss issues of nutrition and cancer. Maura, can you start out by telling us whether there are differences in nutritional recommendations for cancer patients and survivors? Harrigan The short answer is yes. We have already talked about the nutrition needs in the active treatment phase, but since I define survivorship from the moment of diagnosis, I would rephrase this question to ask, what are the nutritional concerns of persons transitioning out of active care and into health maintenance and wellness? These are issues that I find working in the Survivorship Clinic. A predominant concern of people in this phase is fear of recurrence of cancer, and many people fear that eating a wrong food would actually cause the cancer to recur, and a person may also feel guilty that having eaten a wrong food actually brought on the cancer. These are very powerful emotions that people bring to the

Survivorship Clinic and discuss. I try to allay their concerns by explaining that there is no one food that will trigger a recurrence, or protect you from recurrence. However, following an overall healthy diet may help prevent recurrence and certainly help one feel more energized, improve mood, and all that is through good blood glucose control.

**Foss** What is the ideal diet?

**Harrigan** The ideal diet consists of eating predominately what we call a plant-based diet, that is one rich in vegetables, fruits, and whole grains, and also limiting the consumption of processed and red meats. Now, just adopting these two steps creates a high-fiber diet that is naturally low in total fat, trans fat, and saturated fat. This is also ideal for managing weight and also the late effects of treatment, which include a higher risk for cardiovascular disease, diabetes, and osteoporosis. I have a few more things to add on to that. I do recommend limiting sugar intake including what I call the 'stealth sugars'. These are the corn syrup solids and high fructose corn syrups that are often added unnecessarily to foods. Also another important aspect not to overlook is to evaluate a person's consumption of alcohol. The benefits of alcohol are really related to cardiovascular disease protection and are not specific to any cancers. So, alcohol consumption in cancer survivors should be looked at and many people do self-medicate in terms of their anxiety and depression with alcohol. It is worth evaluating and asking them about their alcohol intake.

**Foss** So, alcohol can actually have a deleterious effect if you are a cancer survivor?

**Harrigan** Yes, and outside of just the cancer process itself, it is an extra source of calories and people can put on weight through excess alcohol calories. The excess body fat is metabolically active, it is not an inert substance. So, we are finding that the excess body fat is hormonally active and that is where the concern about weight gain comes in with cancer survivors. Our goal is one, to prevent further weight gain, and also to promote weight loss.

**Foss** Can you give us some helpful hints on how to actually implement this and how would you actually go about implementing these recommendations in your diet?

**Harrigan** Well, it is a challenge as I said to eat this way in our culture and that is the real hard work at the Survivorship Clinic, turning this into real nitty-gritty how to do. Each person that comes in walks out with a different plan because we try to tailor to the individual, but generally I tell people we have to start with a good food shop. I give them a very extensive shopping list, teach them how to go through the supermarket so that they bring healthy foods into their home environment. That is the first big step, surround yourself with healthy foods and also carry these foods with you outside your home, into your work environment, and into your day so that you are armed and ready to eat well.

**Foss** Should people be eating more than three meals a day?

**Harrigan** Yes, ideally six small feedings a day seems to help people on many levels. One, it helps stabilize blood sugar levels, so that helps across the board with managing hunger and also stabilizing mood, and also someone who is having difficulty keeping up their calorie intake or their nutrient intake, eating smaller more frequent meals is an easier way to reach their goals.

**Foss** What about specific foods, we have heard a lot about the benefits of say green tea, is that something

that we should be doing?Harrigan Yes, green tea is actually categorized as a supplement, but green tea is a wonderful food and I recommend that to patients and often a warm beverage like green tea in the evening before bedtime can actually be quite soothing to the digestive system and help promote a restful sleep.Foss Great, what about other supplements? Could you make some recommendations about the use of these supplements and also talk about how, when you are actively undergoing cancer treatment, sometimes supplements can be deleterious?Harrigan Supplements are controversial. Up to 70% of cancer survivors actually use supplements, but21:56 into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> they have to be used with caution and concern, and I always encourage survivors to discuss their use of supplements with their physician first because there are certain supplements that can interfere with treatment. For example, folic acid supplements may interfere with methotrexate, a chemo drug that works by interfering with folic acid metabolism, also antioxidant vitamins such as vitamin C and E could interfere with the cellular oxidative damage to cancer cells that is intended by radiotherapy and chemotherapy. Another supplement, soy isoflavones, is supplemental soy in a pill form and this is not recommended for women with estrogen receptive positive breast cancer because the supplemental soy does mimic the action of estrogen in the body. Now this soy supplement is considered to be different from soy in whole foods, where in fact soy is considered to be a protective factor of breast cancer. So, you can understand why there is so much confusion out there.Foss Should all cancer patients be talking about these supplements with their physicians?Harrigan Absolutely, because while we know vitamins and minerals are important, more is not necessarily better, and people often take multiple formulas, many different bottles of supplements, not realizing that there may be nutrients that are repeated in each of those bottles. So, they actually multiply their dosages and there is actually what is called an upper tolerated limit. There is a ceiling on these nutrients that we need to honor. For example, vitamin A is often a nutrient I see repeated in multiple formulations and I will ask people to bring in their bottles. They may come with a shopping bag of 8 to 10 bottles of supplements and I take them out look at the labels and I start with vitamin A and I start adding up all the dosages of vitamin A and find out that they are well above what we call the upper tolerated limit of vitamin A, which is 3000 mcg a day. Other vitamins would be vitamin C, there is a ceiling on that of 2000 mg a day, and vitamin E, which is 1000 mg a day. So, I am looking for overdosing, which can do harm.Foss Rather than coming in with a shopping bag of pill bottles, can we trust the One-A-Day or the Centrum, the kind of all inclusive multivitamin, multi-mineral supplement, is that adequate for most people?Harrigan Yes, and that is what I recommend. I recommend just your good old solid multivitamin as a way to fill in the gaps of any possible nutrient deficiency.Foss Maura, there are lot of people out there who are talking other things like herbal supplements or naturopathic type treatments, and oftentimes it is difficult for them to talk to the physician about this. Can you talk about your role in advising patients about those kinds of supplements?25:26

into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> Harrigan That is a challenge even for me because there are times when people come in with supplements that frankly I never heard of. There is a wonderful web-based referral, which is called [www.naturaldatabase.com](http://www.naturaldatabase.com), which is a complete listing of all herbal and botanical supplements that frankly I have to use to look up to evaluate these products.Foss And we have had the same experience and it has been very helpful going to that website trying to figure out what is in some of these herbal remedies. Do you recommend that patient use these or are you keeping kind of a neutral stance on it?Harrigan I try to stay neutral and I try to steer people back towards a healthful whole food approach. So, when people are telling me that they are going the supplement route, I take a detailed diet history to assess what the real foods that you are eating are and look for gaps in that and try to round out their normal eating of whole foods as a way to kind of counter the supplements.Foss We keep coming back to the same message here, which is, you are what you eat.Harrigan Our grandmothers told us that and it still holds true.Foss In addition to healthy eating, what other lifestyle factors are thought to be helpful in terms of cancer prevention?Harrigan Well, the obvious one about smoking, that has been very clear, and avoidance of excessive sun exposure. Again, I do want to mention the importance of achieving a healthy weight, which we define ideally as a body mass index of 25, but even a weight loss of just 10% from your starting weight can actually confer tremendous benefits of health, and at the very least, if you cannot achieve weight loss, at least preventing further weight gain. Dovetailing with that is the value of exercise and again we address that in the Survivorship Clinic. The ideal recommendation is 30 minutes a day, five days a week, but again you need to assess where the person is starting from. For some people that may be very daunting, so we start small and look at just working activity into their day, parking farther away, taking a flight of stairs instead of the elevator, all those things are beneficial to managing your weight and your overall sense of well being. What is interesting is that regardless of your activity level prior to your diagnosis, any increase in your movement or activity after diagnosis has been shown to have very profound effects on your health and on cancer prevention.Foss Can we just talk for the last minute about stress, everybody obviously is concerned about the role of stress in both cancer and in healing. Can you make some recommendations?Harrigan Yes, and again in the Survivorship Clinic our social worker, Lina Chase, offers many28:49 into mp3 file <http://www.yalecancercenter.org/podcast/dec2709-nutrition-cancer-survivors.mp3> different methods to manage stress. One is just deep breathing exercises, taking 10 deep breaths. If you take the time and do that and feel the difference before you started and after, it is just remarkable in terms of the calming affect that it has. Also, we strongly recommend yoga; it is a wonderful stress management and also helps with flexibility. Tai Chi is another wonderful exercise; that mind-body connection is very powerful and very much a part of our holistic approach to managing cancer.Foss Maura, this has been a terrific discussion and certainly a lot of us have gotten some helpful hints

that we can implement immediately in our lifestyles. I would like to thank you for joining me on Yale Cancer Center Answers. Until next week, this is Dr. Francine Foss from Yale Cancer Center wishing you a safe and healthy week. If you have any questions or would like to share your comments, go to [www.yalecancercenter.org](http://www.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.