“From Diagnosis to Thriving: The Powerful Role of Nutrition in Breast Cancer Treatment & Survivorship”

Webinar Questions Answered by Alison Tierney, MS, RD, CD, CSO

Please note that these are brief answers to complex questions and are not meant as medical advice. For more complete information, please seek medical advice from your personal healthcare professional.

- **Shouldn't obesity/overweight be in the middle of modifiable/non modifiable as it's really a multifactorial condition that isn't ALWAYS within the patient's control?**
    - Personally, yes, I would agree with this statement. The chart within the webinar was recreated from resources from the *Oncology Nutrition for Clinical Practice Textbook & American Cancer Society*.
- **What was the name of the “hair-loss” protector cap please?**
    - There are several companies. However, the company I did cold capping with is Paxman.
- **Is dense breast a risk factor, or is it the risk associated with dense breast as imaging may not pick up cancer?**
    - Both. Dense breasts are a risk factor for breast cancer. Women with dense breasts have a higher risk of breast cancer than women with fatty breasts. This risk is separate from the effect of dense breasts on the ability to read a mammogram - or the mammogram to pick up cancer/abnormalities. Please see this NIH page for more information.
- **Reaching menopause before age 55 is marked as N/A on the slides handout. Is it no longer relevant?**
    - When I discussed this slide, my commentary was regarding how cancer does not discriminate and that anyone can get cancer - even if you follow the recommended guidelines. In the case of the slide you are referring to, those were my personal attributes and that is a non-modifiable risk factor that was not yet relevant to me.
- **Is the risk only for oral contraceptives or other forms as well?**

    - A 2017 cohort study found that women with current or recent users of hormonal contraception increased the overall relative risk of invasive breast cancer. Relative risk increased based on the duration of use. Of note, progestin-only contraception results were inconsistent. It is recommended that women considering the use of hormonal contraception should be counseled regarding the small, but increased risk of breast cancer. Please see this article for further information.

- **Does breast tissue density translate to "size"?**

    - Breast density is not related to breast size. It is a measure of how much fibrous and glandular tissue is in the breast vs. fat tissue.

- **Can you describe what is involved with dense breast tissue screening?**

    - There are 4 categories of breast density. A radiologist determines the category of density based on a mammogram. As of September 10th, 2024, the FDA requires all mammogram reports send to patients to include the woman's breast density category and if the tissue is dense, to discuss that dense tissue can make it harder for breast cancer to be detected on a mammogram and that is also raises the risk of developing breast cancer.

- **Is there anything that indicates the amount of time of oral contraceptive use vs age of breast cancer dx? I had breast cancer at age 62 and used oral contraceptives for many years before the age of 50. Is there a time span between the two that's been identified?**

    - Please see the above related and addressed question, learn more here, and discuss with your healthcare provider.

- **Do you see any long-term food aversions or taste changes, and how can an RD address that?**

    - Yes, food aversions and taste changes are common with many chemotherapy types. In my professional experience, I have worked with some patients that have long term taste changes. This is more commonly seen in head and neck cancer patients, often related to the impact of radiation.

Taste change interventions do require an individual approach assessing what changes the individual is experiencing. The ACS has a good starting point of guidance.

Of note, in my experience, long-term food aversions may occur not necessarily physically, but more so mentally and emotionally as certain foods may remind individuals of chemotherapy. We often recommend that some patients who may be experiencing food aversions or taste changes avoid some of their favorite foods so that they do not develop long-term associations with their favorite foods and go on to enjoy them following chemotherapy.

- **Is it recommended that patients at a higher weight lose weight DURING cancer treatment? I was initially taught that weight loss during treatment can cause the medications to be less effective, but am seeing/hearing conflicting information and have even seen some RDs go so far as to consider weight loss medications during cancer treatment. Thoughts?**

    - I have had one patient come into treatment already on weight loss medications. We had a discussion regarding exercising caution as it relates to weight and that it may be necessary at one point to discontinue the mediation at some point, depending on how treatment went.

      There has been some research in breast cancer patients that weight loss during treatment - as long as no contraindications exists (such as non healing wounds or advanced disease) and it is a result of healthy habits and nutrition changes, slow and steady weight loss may be perfectly safe - and even beneficial. As an oncology dietitian, I am always focused on watching a patient's weight, monitoring side effects, and keeping oral intake into account.

- **In what ways does nutrition impact blood counts? Are there certain foods that can increase/decrease metrics?**

    - There is no one food or supplement that can increase blood counts - particularly white blood cell counts. However, focusing on energy intake, protein, and vitamins and minerals for new white blood cells to be formed in the bone marrow, may be beneficial.

We should place an emphasis on meeting energy needs, consuming vitamin C rich foods, meeting the increased protein needs (typically between 1.2-1.5 g/kg body weight), and zinc as some specifics to consider.

- **What are your thoughts on soy consumption (natural source) with breast cancer?**

  Soy is perhaps one of the most misunderstood foods. Research supports soy consumption. This topic was reviewed on slides 35-37 in the webinar presentation.

- **If an individual does not have any genetic predisposition to cancer but has a strong family history of breast cancer, would you still recommend they limit alcohol and follow a more plant-forward or plant based diet?**

  Yes, absolutely.

- **Does the limited fat intake apply to medication-induced menopause also?**

  Yes.

- **Would you advise patients undergoing chemo and/or radiation to eliminate "junk" food if they are struggling with significant symptoms such as nausea/weight loss/ taste change, etc.?**

  No, not necessarily. There are times when we just need to make sure the client can intake enough calories and sometimes that requires “junk” food.

- **What kind of research exists on microplastics and cancer risk? Are there recommendations on reducing microplastics or other environmental food contaminants?**

  A study was recently (September 23rd, 2024) released regarding this topic and other chemicals that may be associated with breast cancer. You can find that article here.

- **Do different cooking processes affect glucosinolate content (significantly)?**

There are some considerations to be made regarding cruciferous vegetables, cooking, and optimizing the sulforaphane content. It is suggested that chopping cruciferous vegetables and allowing them to sit for at least 40 minutes prior to cooking to allow the full conversion of glucosinolate to sulforaphane.

You can learn more about cooking cruciferous vegetables and their phytonutrient content here and here.

- **Most of my patients are persons with breast and gynecological cancers. Often, nutrition information is passed along via social media and online support groups. Are there any evidenced-based social media accounts that you feel are helpful to follow for survivors?**

  Shameless plug - @wholesome.cancer.nutrition
  And - @drteplinsky and @cancernutritionhq

- **Do you recommend patients not take multivitamins during cancer treatment? Also, what are your recommendations after cancer is in remission?**

  This is certainly an individual approach as well. It would depend on the multivitamin/mineral product they want to take related to any ingredients that may be included and potentially interact with treatment. Additionally, my approach is typically making recommendations based on measured levels. For example, I never recommend a vitamin D supplement before first having vitamin D levels drawn and making a recommendation based on those levels.

  Working together with the patient's pharmacist can be really beneficial in this area.

- **Why would you recommend 30g minimum of fiber rather than the standard of 25g and 35g?**

  For the purpose of this presentation, we are focused on breast cancer. Although women are not the only ones that can develop breast cancer - this is the predominant population getting diagnosed. Therefore, we recommend beyond the 25 grams of fiber for women and instead at least 30 grams of fiber based on what research has suggested at this point.

- **Can you further describe why carotenoid supplementation should be avoided?**

  Conversely, frequent use of combination carotenoids was associated with increased risk of death from BC (HR, 2.07; 95% CI, 1.21-3.56) and all-cause mortality (HR, 1.75; 95% CI, 1.13-2.71). This study can be reviewed here.

- **With carotenoid supplementation - what is the recommended maximum dose? I am working with clients who are taking Isotretinoin for acne - is there research on cancer with use of vitamin A in this manner?**

  I would like to reiterate that vitamin A and carotenoid supplementation is not recommended and I therefore do not have a recommendation for supplementation. Please review this study for further information.

- **As a breast cancer survivor of 5+ years, I feel I'm still trying to rebuild my gut biome. Any tips for that (would that help with decreasing risk of recurrence as well)?**

  I would work with a patient to do a typical food recall and from there promote fiber, particularly soluble fiber, and fermented foods to help rebuild the gut.

- **What is flax bread - traditional bread with flax mill or only flax mill + water?**

  The reference to the flaxseed bread was not a particular recipe - but rather the study that looked at flaxseed and cancer risk noted the association of flaxseed bread and decreased cancer risk. Looking at the actual study that is referenced, as part of the methods it states: "The FFQ collected information regarding consumption of 178 food items (alone, in baked goods, snacks or other dishes) and flax or linseed breads (including bagels or buns)." Please review the study for further details regarding the flaxseed.

- **How soon before consuming flaxseed should it be ground, less than an hour, less than a day?**

  I am not aware of any specific research recommendations to answer this. However, it should be noted that omega-3s can become rancid overtime. Smelling the ground flaxseeds for rancidcity should be a simple approach to help.

- **Any research showing Tamoxifen that's used in breast cancer treatment makes it harder to lose weight after treatment concludes and patients finish Tamoxifen?**

  Current research is inconsistent regarding the evidence of Tamoxifen and weight gain as studies typically fail to show a statistically significant difference in weight gain. It would be important to assess the nutrition and lifestyle factors that may be impacting possible weight gain, or difficulty achieving a healthier weight following treatment. Including, but not limited to, thyroid health, insulin resistance, and metabolic syndrome. Breast cancer and its treatments can unfortunately worsen metabolic health.

- **What are your thoughts on pre-ground flaxseed vs. grinding at the time of consumption?**

  Research shows a minor benefit of grinding flax seeds at the time of consumption. However, my recommendation is always based on how likely the patient is to include flaxseed regularly if they need to freshly grind it daily.

- **Any special tips for Triple Negative breast cancer? Currently on chemo and immunotherapy. What do you do if patients are undergoing treatment do not have an appetite? Would you suggest an appetite stimulant so that they can eat the recommended foods? So many of my patients try to drink Ensure every day when don't have an appetite.**

  We certainly need an individual approach here as well regarding reduced or no appetite during treatment. The ACS has a good starting point for recommendations. Professionally and personally, I am not a big fan of Ensure. I prefer Orgain and/or Kate Farms.

- **Is FLAXSEED oil just as good to take (by the teaspoon), and how frequently would that be recommended? What about FLAXSEED supplements?**

  As it relates to flaxseed vs. flaxseed oil, ground flaxseed is always preferable as it contains the lignans that seem to provide the most benefit. Therefore, I do not have a flaxseed oil dose recommendation. Supplements are not regulated by the FDA and as a result, I would exercise more caution on supplements and instead coach the patient on ways to incorporate ground flaxseed more regularly.

- **Any new information about collagen peptides and breast cancer risk?**

I am not aware of any current evidence regarding the role of collagen supplements and the risk of breast cancer.

- **Any thoughts on using intermittent fasting to help manage symptoms of nausea from chemo treatment?**

  This is certainly an area of emerging research. Personally, I did use a form of fasting before and after chemotherapy.

  However, for more information regarding this, here is a good review to consider reading. It is my opinion that this area of research will only continue to grow with the promising initial data we have.

- **My patient asks me if hydration potentially affects the lymphedema in her arm? Do you have any thoughts on this or suggestions?**

  From my understanding, drinking adequate (but not excessive) water promotes the body's filtration and lymphatic system. I do not consider myself an expert in this area. My first thought is to turn to Jean LaMantia, RD who is a breast cancer survivor and focuses her work on lymphedema.

- **Is there any risk of consuming greater than two servings of soy foods daily?**

  The most common daily intake of soy consumption that is studied is 2-3 servings per day of soy foods. However, I am not familiar with any particular research suggesting that more than this could be harmful.

- **Do you have insight as to when/why the "negative" link between soy and breast cancer started? It's still hard to debunk with patients.**

  From my understanding, it began with research in animal studies. A 1987 study looking at cheetah's and fertility, followed by a 1998 study regarding the stimulated growth of tumors in mice that had been implanted with MCF-7 cells (an estrogen-dependent human breast cancer cell line). Since then, however, hundreds if not thousands of *human* studies have looked at soy consumption and breast cancer risk.

- **What would be considered overly processed soy products that don't have the cancer risk protective benefit?**

  Soy protein isolate is the first that comes to mind.

- **Is "plant-based meat consumption" encouraged like soy milk?**

  It is not. More research needs to be done in the area of plant-based "meats", however, it is always recommended to opt for more whole, unprocessed sources of plant protein (legumes, nuts, seeds, & whole grains) over processed forms of plant protein, such as found within many plant-based "meats".

- **Are you aware of any research on the use of GLP-1 use for weight loss and breast cancer risk?**

  There are some studies that are emerging on this topic. This study found no signs of increase or decrease in risk for breast cancer in postmenopausal women with T2DM treated with GLP-1s compared to those treated with insulin or metformin. However, I believe more research is needed to understand the effects of these medications on breast cancer risk.

- **Do you advise separating the consumption of flax with oral meds due to absorption issues?**

  Flaxseed can be very beneficial for individuals that have constipation as it can have a mild laxative like effect. As a result, there is some concern that it might interfere with the body's ability to absorb medications taken by mouth because it might sweep them out of the digestive tract too quickly. To avoid this problem if patients are experiencing this issue, we may advise patients to take medications an hour before or two hours after taking flaxseed. I would default to the pharmacist for further guidance on this question.

- **Why are we not addressing how foods are processed, packaged, and cooked? Plastics are hormone disruptors, and we should tell clients never to cook (heat) in plastic and avoid plastic water bottles.**

  I believe this is a very important thing to consider and educate our patients on! A study was recently (September 23rd, 2024) released regarding this topic and

other chemicals that may be associated with breast cancer. You can find that article here.

- **What are your thoughts on alcohol increasing the risk of breast cancer, yet The American Heart Association says it can lower the risk of heart disease?**

  My focus is on the cancer population and thus, I focus on the guidelines related to cancer risk over heart health.

- **What about THC and cannabinoids?**

  This topic is not within my scope of practice and I therefore do not feel comfortable commenting on it. My response is the same when patients as me this question.

- **Is there evidence for a daily flaxseed oil supplement vs. the 2-3 tbsp per day?**

  Please see my previous response regarding flaxseed and flaxseed oil.

- **What about GMO with soy?**

  I always recommend patients to consume organic, non-GMO soy products. To be clear, this is more so a recommendation operating out of the precautionary principle, rather than specific research suggesting GMO soy increases breast cancer risk.

- **I have a breast cancer patient with ER+ breast cancer and she is a vegetarian who is concerned with overeating soy. She recognizes that soy can be beneficial rather than detrimental, but her concern is that she eats too much (more than 2 servings/day) and she occasionally has more processed soy foods (Impossible meat, etc). What would you suggest as far as an upper limit for soy?**

  The most common daily intake of soy consumption that is studied is 2-3 servings per day of soy foods. However, I am not familiar with any particular research suggesting that more than this could be harmful. I would counsel this patient on incorporating a wider variety of plant-proteins into her diet, more for the focus of plant-diversity and the benefits it may have on the gut microbiome.

- **What about organic soy vs conventional soy?**

  I always recommend patients to consume organic, non-GMO soy products. To be clear, this is more so a recommendation operating out of the precautionary principle, rather than specific research suggesting GMO soy increases breast cancer risk.

- **Have you had any BC patients who have AMD and take AREDS supplements that contain lutein and zeaxanthin? Your thoughts?**

  I have not had this particular situation arise in my patients. My initial thought is to review this patient's overall nutrition and see if we could instead focus on whole food sources of lutein and zeaxanthin to help optimize these nutrients, while minimizing the potential risk of supplementation.

- **Do you know much about ginseng and fatigue?**

  My knowledge is not very extensive. However, this review suggests the use of ginseng for the management of cancer-related fatigue is safe and possibly effective.

- **How does holy basil or black cohosh affect your treatment plan?**

  My knowledge surrounding these supplements and breast cancer is mostly related to hot flash management in women with breast cancer. Currently, the body of evidence regarding black cohosh does not support improvement over the placebo for managing vasomotor symptoms

- **You mentioned soy in whole foods is OK, what is the research or your thoughts on foods with soy protein isolate or processed soy?**

  At this time, we are recommending limiting or avoiding soy protein isolate and highly processed soy as there is little to no research to know the effect these foods may have on breast cancer risk. The research available typically looks at the consumption of soy foods in the form of edamame, tempeh, tofu, soy milk, and miso.

- **How do you recommend bringing this info to a family member on the carnivore diet?**

This is a difficult question to answer! Personally, I would consider how open the family member is to discussing this topic (as dietitians, we should consider The Stages of Change Model). Some individuals are not at a point where they are not open discussion. If they are open to a thoughtful discussion, I would start by ensuring the individual has a good working understanding of several topics (e.g. gut microbiome, insulin resistance) to help them understand why the carnivore approach is not recommended for reducing cancer risk. Certainly, presenting the evidence may be helpful, depending on the individual.

- **Isn't PCRM a very questionable resource?**

  It is important that we, as healthcare professionals, critically evaluate all sources of information. The Physicians Committee for Responsible Medicine (PCRM) offers valuable guidance on adopting a nutritionally adequate, plant-based diet for patients interested in a plant-predominant or fully plant-based approach. While I believe PCRM provides helpful resources for these clients, I also encourage the ongoing review of current research to ensure we are offering the most accurate, balanced advice for each individual's unique needs.

- **Recommendations on artificial and "natural" sugar substitutes for cancer?**

  I don’t particularly like to recommend artificial sweeteners related to inconsistent data and more research that is needed within this area regarding safety and risk vs. benefit. My personal and professional approach is “real sugar, less of it”. However, I typically like to recommend stevia, monk fruit, Smart Sugar, and dates as alternatives to cancer sugar, when a patient is seeking alternatives.

- **What is your recommendation for dairy, meat, chicken and fish?**

  In an effort to promote plant-predominance, I always assess where a patient currently is in their overall nutrition, discuss their goals, and make recommendations accordingly. When it comes to meat, I encourage patients to limit their red meat intake to no more than 18 ounces per week and to limit their processed meat as much as possible (both recommendations of the AICR/WCRF). When it comes to meals that typically include meat or poultry, I would discuss ways in which they can include meat/poultry, while enhancing the meal with legumes and/or vegetables. For example - to a traditional taco with ground meat, I would encourage the addition of legumes to the taco meat mixture and topping the tacos with greens, fajita veggies, salsa, etc. As for dairy, the AICR/WCRF does not have a current recommendation regarding dairy stating

inside the Third Expert Report, “the evidence of potential harm means no recommendation has been made for dairy products.” As a result of this report, I encourage individuals to incorporate dairy products in smaller amounts and think of it as a condiment, rather than a primary food group. (I am from Wisconsin, it is commonly considered its own food group here!)

- **Could you provide a website for Nasopharynx cancer?**

  I am not entirely sure what one might be looking for regarding nasopharynx cancer. However, as it relates to available research on nasopharyngeal cancer and nutrition, this might be a great starting point.

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