# Challenges In Nourishment For The Cancer Patient: When To Seek A Dietitian Consult



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#### Agenda

- Correlation between body, mind and diet, during a cancer diagnosis
- Managing side effects of cancer treatments
- Practical nutrition tips to support your patients

# Survivorship:





#### Body, Mind, Diet and Cancer

- Being diagnosed with a life threatening disease such as cancer and undergoing treatment can cause unwanted distress and interferes with quality of life.
- Uncontrolled stress can have a negative effect on a number of biological systems and processes leading to negative health outcomes.
- Malnutrition is associated with increased complications during cancer treatment

Sloan EK, Priceman SJ, Cox BF, Yu S, Pimentel MA, Tangkanangnukul V, Arevalo JM, Morizono K, Karanikolas BD, Wu L, Sood AK, Cole SW. The sympathetic nervous system induces a metastatic switch in primary breast cancer. *Cancer Res.* 2010 Sep 15;70(18):7042–7052. [PMC free article] [PubMed] [Google Scholar]

<u>Clinical Nutrition</u> <u>Volume 38, Issue 2</u>, April 2019, Pages 644-651



#### Weight Loss, Impaired Physical Performance and Systemic Inflammation Cause:

- Decrease in Quality of Life
- Increase of Toxicity of Treatment
- Fewer or Interruptions of Treatment
- Poor Prognosis



Weight Loss, Impaired Physical Performance and Systemic Inflammation

As part of ESPEN guidelines on Nutrition in the Cancer Patient, all three components interact with each other and result in continuous deterioration of the patient's overall state and well being.



#### **HARD FACT**

Reversal of cachexia is practically impossible



Patient is a 65 year old postmenopausal female

Diagnosed in Feb. 2021 with TcT2N1M0 right breast invasive mammary carcinoma; poorly differentiated ER, PR -, HER2 +

Ht: 5'3" Wt: 118 lb

She was offered and started neoadjuvant chemotherapy with Docetaxel, Carboplatin, Trastuzumab and Pertuzumab

After first cycle patient c/o severe diarrhea and abdominal pain.

Conservative measures did not improve her condition. On day 7 she developed fever and she was admitted for management of febrile neutropenia.



Patient was diagnosed with C diff colitis, neutropenia resolved and she was discharged on oral antibiotics

Patient continued to have poor food tolerance and diarrhea

**Urgent Nutrition Referral was placed on 3/19/2021** 

#### **Chief complaint:**

- anxiety
- weight loss
- abdominal discomfort
- fear of not able to complete the curative treatment



#### **Our intervention:**

- Dietitian consult
- Psychology consult
- Change in chemotherapy regimen to Paclitaxel/ Carboplatin/Pertuzumab weekly.



#### **Dietitian recommendations:**

- **BRATT Diet**
- Protein
- Enterade, a medical food to help manage diarrhea and dehydration

#### 3/21/2021

- Patient had gone 20 hours without diarrhea, following BRATT and taking Enterade BID
- Diarrhea started up again
- Reviewed how sugar and fat can play a role in diarrhea

#### 3/26/2021

- Concerned about 5 lb weight loss. Wt: 114 lb
- Continued with intermittent diarrhea
- •Introduced Kefir and Greek yogurt to include probiotics, now that her course of antibiotics was over.



4/14/2021

Wt: 111 lb

- Having stomach issues with dairy alternative milk, Ripple
- Switched to Almond milk, and discussed adequate protein intake
- Provided link to Banatrol, a fermentable soluble fiber

4/27/2021

Wt:108 lb

- Requested Kate Farms Standard 1.4 supplement samples
- •Organic formula that does not contain milk, soy, corn, peanuts, tree nuts, fish, gluten, artificial sweeteners or artificial flavors. Provides 455 kcals 20 grams protein/ 11 oz container



#### 4/29/2021

Wt: 111 lb

No diarrhea for the past 3 days

- Orgain Vegan Organic Nutrition Shake; 11 oz 220 kcal 16 grams protein
- Dairy free, gluten free

5/3/2021

Wt: 108.5 lb

- Complaining of awful taste
- Provided FASS for Troubled Tastebuds

5/7/2021

Wt: 108.5 lb

Miracle Fruit recommended



#### **Early and Intensive MNT Can:**

- Increase weight gain or maintenance
- Increase LBM gain or maintenance
- Enhance QOL
- Increase perceived health benefits and patient satisfaction
- Decrease hospital admissions
- Decrease hospital length of stay
- Improve appetite
- Improve treatment tolerance
- Increase energy and protein intake



### **Screening is the Key Component**



#### **NUTRISCORE**

#### A. Have you lost weight involuntarily in the last 3 months?

NoI am not sure2

#### If yes, how much weight (in kilograms) have you lost?

1-5
6-10
11-15
>15
Unsure

#### B. Have you been eating poorly in the last week because of a decreased appetite?

NoYes

Location / Neoplasm	<b>Nutritional risk</b>	Score
Head and neck	High*	+ 2
Upper GI tract: oesophagus, gastric, pancreas,		
intestines		
Lymphoma that compromised GI tract		
Lung	Medium	+ 1
Abdominal and pelvis: liver, biliary tract, renal,		
ovaries, endometrial		
Breast	Low	+ 0
Central Nervous System		
Bladder, prostate		
Colorectal		
Leukaemia, other lymphomas		
Others		
Treatment	YES (+2)	NO (+0)
The patient is receiving concomitant chemo		
radiotherapy		
The patient is receiving hyper fractionated radiation		
therapy		
Haematopoietic stem cell transplantation		
	YES (+1)	NO (+0)
The patient is receiving chemotherapy		
The patient is only receiving radiotherapy		
	YES (+0)	NO (+0)
	YES (+0)	NO (+0)

<sup>\*</sup>Please repeat the screening every week for those patients at high risk

#### **Total Score**

Score  $\geq$  5: the patient is at nutritional risk. Please refer to a dietician.



#### Types of Treatment For (Breast) Cancer

#### **CURRATIVE SETTING:**

- Surgery
- Radiation
- Chemotherapy
- Hormonal therapy
- Targeted therapy
- Immunotherapy

#### **PALLIATIVE SETTING:**

- Radiation
- Chemotherapy
- Hormonal therapy
- Targeted therapy
- Immunotherapy
- REPEAT



Increased Caloric Needs





#### **Dietary Management**

Choose calorie dense foods like peanut butter, avocado, whole fat yogurt



• Increased Protein Needs



#### **Dietary Management**

• Include protein with each meal, ie eggs, nuts, legumes, protein supplements



Loss of appetite/weight loss

#### **Dietary Management**

 Eat small meals, more frequently, separate solids from liquids, to reduce stomach volume, eat the most, during your best time of day

Change in taste



#### **Dietary Management**

 Experiment with spices and herbs, marinate meats, use plastic if foods taste metallic, try Miracle Fruit



Constipation/diarrhea



#### **Dietary Management**

Which type of fiber is right for you? Choose between water soluble fiber and water insoluble fiber

#### Nausea/vomiting





#### **Dietary Management**

- Limit odors on days that you feel nauseated, by eating cold or room temperature foods.
   Use a cup with a lid and drink through a straw, if beverages have an offensive odor.
- Incorporate ginger into your diet.
- Eat dry food on an empty stomach
- Separate solids from liquids



Mouth sores



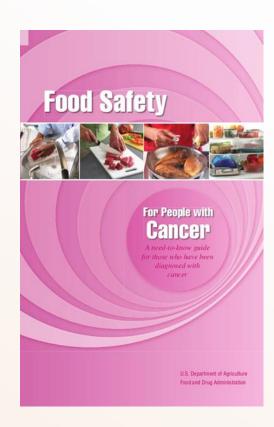
#### **Dietary Management**

 Protein will help to heal sores faster. Incorporate high protein smoothies into your meal plan

Low blood counts

#### **Dietary Management**

 Follow food safety guidelines; When in doubt, throw it out!



## **The New American Plate**



IN PURSUIT OF YOUR CURE.™

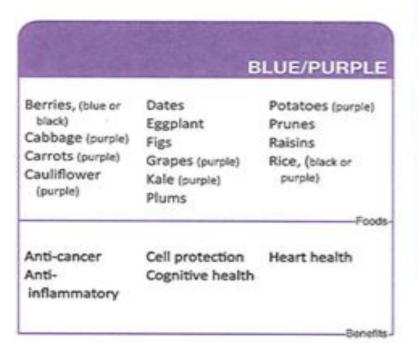
#### **Anti-Inflammatory Diet**

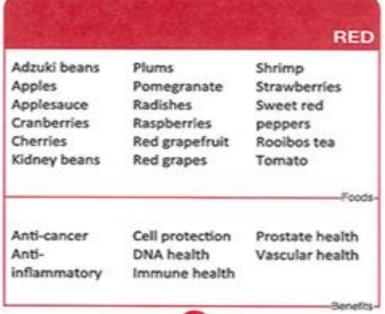
#### **CORE FOOD PLAN EATING TIPS DAILY FLUID INTAKE DAILY FOOD INTAKE** WHAT: 1/2 of your desirable weight (lbs) in ounces Colorful vegetables and fruits Best Choice: Purified water Lean protein Other Options: Healthy fats Unsweetened beverages low in Fiber-rich foods salt/sodium and caffeine Protein and fat with each meal Organic foods HOW MUCH: Small, frequent meals 3 meals, 2 snacks Appropriate portions Nuts & Seeds MINIMUM per day: ·Legumes, 1 serving ·Nuts & Seeds, 1 serving · Vegetables and Fruits: 1 red, 1 orange, 1 yellow, 1 green, 1 blue-purple WHEN: Start the day with breakfast Approximately every 3 hours HOW: Enjoy your food Eat mindfully, peacefully enistory anelg Share meals with friends/family

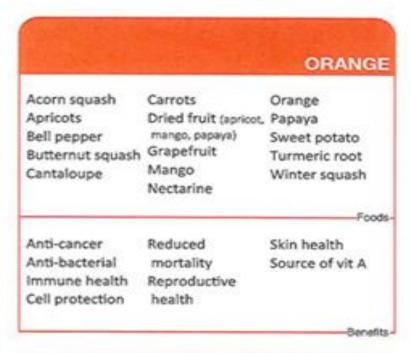
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**OIFM** 

#### **Rainbow of Phytonutrients**







		WHITEITAN
Bean dips	Hummus	Shallots
Cinnamon	Legumes	Tahini
Clove	Nuts	Whole flaxseeds
Dark chocolate	Onions	Whole grains
Flaxseed meal Garlic	Refried beans, low-fat	(quinos, brown rice, wheat, spelt)
Ginger	Sesame seeds	
		Food
Anti-cancer Anti-microbial	Gastrointestinal health	Hormone balance Liver health
Cell protection	Heart health	

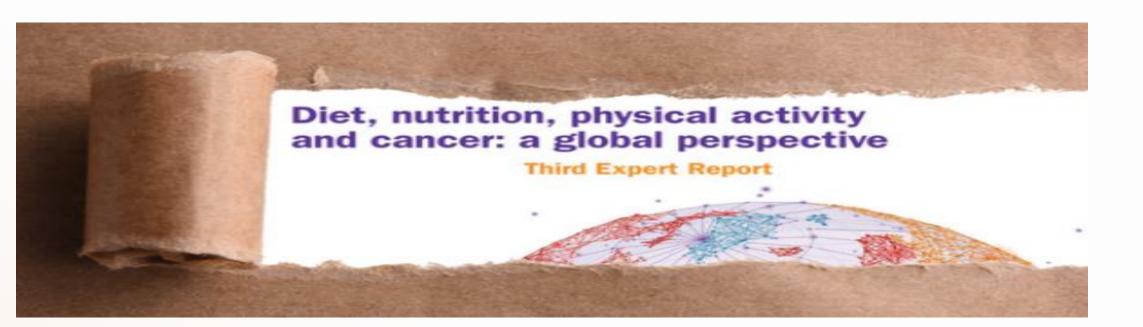


YELLOW Bell peppers Spinach Greens Corn Kale Succotash Corn-on-the-cob Popcorn Foods Anti-cancer Cell protection Heart health Anti-Cognition Skin health inflammatory Eye health Vascular health Benefits

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#### THIRD EXPERT REPORT

# A Landmark in Cancer Prevention

Created from a massive database of scientific literature, the Third Expert Report (*Diet, Nutrition, Physical Activity and Cancer: a Global Perspective*) provides a comprehensive and authoritative body of evidence on how lifestyle factors such as diet, nutrition, body weight, and physical activity can impact cancer risk and survivorship.



Diet, nutrition, physical activity and **breast cancer** 





2017	DIET, NUTRITION, PHYSICAL ACTIVITY AND PREMENOPAUSAL BREAST CANCER			
7		DECREASES RISK	INCREASES RISK	
STRONG EVIDENCE	Convincing		Adult attained height <sup>1</sup>	
	Probable	Vigorous physical activity Body fatness <sup>2</sup> Lactation <sup>3</sup>	Alcoholic drinks <sup>4</sup> Greater birthweight <sup>5</sup>	
	Limited – suggestive	Non-starchy vegetables (ER- breast cancers only) <sup>6</sup> Dairy products Foods containing carotenoids <sup>7</sup> Diets high in calcium Physical activity <sup>8</sup>		
LIMITED EVIDENCE	Limited – no conclusion	Cereals (grains) and their products; dietary fibre; potatoes; non-starchy vegetables (ER+ breast cancers); fruits; pulses (legumes); soya and soya products; red and processed meat; poultry; fish; eggs; fats and oils; total fat; vegetable fat; fatty acid composition; saturated fatty acids; mono-unsaturated fatty acids; polyunsaturated fatty acids; trans-fatty acids; cholesterol; sugar (sucrose); other sugars; sugary foods and drinks; coffee; tea; carbohydrate; starch; glycaemic index; glycaemic load; protein; vitamin A; riboflavin; vitamin B6; folate; vitamin B12; vitamin C; vitamin D; vitamin E; calcium supplements; iron; selenium; phytoestrogens; isoflavones; dichlorodiphenyldichloroethylene; dichlorodiphenyltrichloroethane; dieldrin; hexachlorobenzene; hexachlorocyclohexane; transnonachlor; polychlorinated biphenyls; acrylamide; dietary patterns; culturally defined diets; sedentary behaviour; adult weight gain; energy intake		
STRONG EVIDENCE	Substantial effect on risk unlikely			

World Cancer Research Fund/American Institute for Cancer Research.

Diet, Nutrition, Physical Activity and Cancer: A Global Perspective.

Continuous Update Project Expert Report, 2018.



2017	DIET, NUTRITION, PHYSICAL ACTIVITY AND POSTMENOPAUSAL BREAST CANCER			
2		DECREASES RISK	INCREASES RISK	
STRONG EVIDENCE	Convincing		Alcoholic drinks <sup>1</sup> Body fatness <sup>2</sup> Adult weight gain Adult attained height <sup>3</sup>	
	Probable	Physical activity <sup>4</sup> Body fatness in young adulthood <sup>5</sup> Lactation <sup>6</sup>		
LIMITED	Limited – suggestive	Non-starchy vegetables (ER- breast cancers only) <sup>7</sup> Foods containing carotenoids <sup>8</sup> Diets high in calcium		
	Limited – no conclusion	Cereals (grains) and their products; dietary fibre; potatoes; non-starchy vegetables (ER+ breast cancers); fruits; pulses (legumes); soya and soya products; red and processed meat; poultry; fish; eggs; dairy products; fats and oils; total fat; vegetable fat; fatty acid composition; saturated fatty acids; mono-unsaturated fatty acids; polyunsaturated fatty acids; trans-fatty acids; cholesterol; sugar (sucrose); other sugars; sugary foods and drinks; coffee; tea; carbohydrate; starch; glycaemic index; glycaemic load; protein; vitamin A; riboflavin; vitamin B6; folate; vitamin B12; vitamin C; vitamin D; vitamin E; calcium supplements; iron; selenium; phytoestrogens; isoflavones; dichlorodiphenyldichloroethylene; dichlorodiphenyltrichloroethane; dieldrin; hexachlorobenzene; hexachlorocyclohexane; transnonachlor; polychlorinated biphenyls; acrylamide; dietary patterns; culturally defined diets; sedentary behaviour; energy intake		
STRONG EVIDENCE	Substantial effect on risk unlikely			

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#### GENERAL PRINCIPLES OF NUTRITION

- Assess dietary pattern for daily intake of fruits, vegetables, and unrefined grains, as well as red and processed meats, alcohol, and processed foods or beverages with added fats and/or sugars.
- Assess eating and snacking habits, including portion size, frequency of eating out, timing of meals, and use of added fats and/or sugars to foods or beverages.
- All survivors should be encouraged to:
- Make informed choices about food to ensure variety and adequate nutrient intake.
- ▶ Limit red meat intake to <18 oz per week and avoid processed meat.
- ▶ Limit refined sugars and processed foods.
- ▶ Eat a diet that is at least 50% plant-based, with the majority of food being vegetables, fruit, and whole grains. a,b
- Track calorie intake.
  - ♦ Self-monitoring of caloric intake has been shown to be an effective strategy for weight management.
- Minimize alcohol intake.
- ♦ Limit intake to no more than one drink per day for a woman and two drinks per day for a man.c,d
- ♦ Alcohol is high in calories, leads to poorer food choices, and is associated with elevated risk for several cancers.
- For patients desiring further recommendations for dietary guidelines
- ▶ Consider referral to a dietitian or nutritionist.
- ▶ The USDA approximate food plate volumes (www.choosemyplate.gov) are:
  - Vegetables and fruits should comprise half the volume of food on the plate
- ◊ Vegetables: 30% of plate; fruits 20% of plate
- ♦ Whole grains: 30% of plate
- ◊ Protein: 20% of plate
- Recommended sources of dietary components:
- Fat: plant sources such as olive or canola oil, avocados, seeds and nuts, and fatty fishe
- ▶ Carbohydrates: fruits, vegetables, whole grains, and legumes
- ▶ Protein: poultry, fish, legumes, low-fat dairy foods, and nuts
- Currently there is no consensus either refuting or supporting the role of soy foods in cancer control. Thus, moderate consumption (3 or fewer servings per day) of soy foods is considered prudent.

<sup>a</sup>Recommendation for healthy food portion sizes can be found on the American Institute of Cancer Research (AICR) New American Plate website (https://www.aicr.org/cancer-prevention/food-facts/aicrs-new-american-plate/) as well as the USDA "Choose My Plate" website www.choosemyplate.gov.

<sup>b</sup>Encourage the use of healthy recipes from resources such as the American Cancer Society's "Find Healthy Recipes" website:





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#### GENERAL PRINCIPLES OF WEIGHT MANAGEMENT

- All survivors should be encouraged to achieve and maintain a normal body mass index (BMI) and strive for metabolic health.
- ▶ Weight gain should be a priority for underweight survivors. (See SNWM-4)
- Weight loss should be a priority for overweight/obese survivors.
  - Weight gain after cancer diagnosis and treatment is common and can exacerbate risk for functional decline, comorbidity, and possibly cancer recurrence or death, and can reduce quality of life.
- > Weight maintenance should be a priority for normal weight survivors.
- In conjunction with primary care, survivors should be assessed for metabolic health and body composition independently of BMI.
- Providers should discuss strategies for weight management.
  - ◊ Practice portion control.
  - Make informed food choices through routine evaluation of food labels.
  - ♦ Incorporate physical activity, particularly strength training, to assure optimal lean body mass (SPA-1).
  - ◊ Track weight, diet, calories, and physical activity routines (eg, journaling, mobile-phone apps).
- Referrals to registered dietitians, especially those who are Certified Specialists in Oncology Nutrition (CSO) and members of the Oncology Nutrition Dietetic Practice Group of the Academy of Nutrition and Dietetics, should be considered.<sup>f</sup>
- There is no current evidence to support the use of weight loss supplements in cancer survivors.





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#### NUTRITION AND WEIGHT MANAGEMENT ASSESSMENT<sup>9</sup>

- Evaluate weight status based on BMI criteriah
- Evaluate involuntary weight change<sup>i</sup>

Clinical evaluation:

- Assess current dietary and physical activity habits and ask about:
- Daily food intake and eating habits
- Physical activity habits
- Willingness to address weight (if necessary) and past strategies used to change<sup>j</sup>
- Barriers to nutrition and weight management:
  - Access to healthful, nutrient-dense foods
- ♦ Financial and socioeconomic issues
   ♦ Time
- Appetite and changes in eating patterns

Assess treatment effects and medical issues:

- Effects of treatment
- GI dysmotility
- Swallowing issues/ dysphagia
- Dysgeusia/change in taste
- Oropharyngeal anatomic changes
- Bowel dysfunction
- Digestive enzyme insufficiency
- GI tract reconstruction/ anastomoses
- Comorbidities:
- Cardiovascular disease
- Diabetes
- Renal disease
- Liver disease
- Mood disorders (eg, anxiety and depression)
- ▶ Thyroid dysfunction
- Gl disease
- Medication use
- Dental health
- Supplement use
- Psychosocial distress and fear of recurrence

 Discuss "General Principles of

> Nutrition" (See SNWM-1)

 Discuss "General Principles of Weight Management"

(See SNWM-2)

 Discuss "General Principles of Physical Activity" (See SPA-1) INTERVENTIONS

Additional Nutrition and Weight Management Interventions (See SNWM-4)

<sup>g</sup>Coordination with primary care physicians and other involved providers is recommended.





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# GOAL ADD Oursell Ou

#### ADDITIONAL NUTRITION AND WEIGHT MANAGEMENT INTERVENTIONS<sup>9,j</sup>

- Discuss increasing frequency of feeding
- Discuss avoiding fluid intake with meals
- Encourage foods that are both high in calories and nutrient-dense (eg, avocados, nuts)
- Manage contributing treatment effects and risk factors as clinically indicated
- Dental health and risk factors for poor oral intake
- Swallowing disorder, taste/smell disorders, and GI motility as appropriate
- Offer smoking cessation assistance as appropriate (See NCCN Guidelines for Smoking Cessation)
- ▶ Contributing psychosocial factors (See SANXDE-1)
- Barriers to food access and preparation such as living too far from grocery store, lack of transportation, or lack of abilities to prepare food
- Consider referral to dietitian for individualized counseling



Weight loss<sup>k</sup>

Weight gain<sup>k</sup>

Reinforce maintenance of normal body weight throughout lifetime

- Monitor weight weekly
- Limit foods that are high in calories, particular those that provide relatively few nutrients such as sugar-sweetened beverages and foods with high amounts fo fats and sugars
- Practice portion control through plate and serving size awareness
- Manage contributing treatment effects and risk factors as clinically indicated
- ▶ Contributing psychosocial factors, including depression (See SANXDE-1)
- > Barriers to healthy food access such as living too far from grocery store, lack of transportation, or lack of abilities to prepare food
- Refer to community resources or PCP.
- Refer to dietitian or weight management programs for individualized help as needed<sup>k</sup>
- Consider evaluation for bariatric surgery or pharmacologic therapy<sup>m</sup> as appropriate (if obese or morbidly obese)
- → Monitor weight daily
  - Recommend weight loss of no more than 2 lbs per week and no more than 1 lb per week in survivors older than 64 years
  - Limit foods that are high in calories, particularly those with relatively few nutrients such as sugar-sweetened beverages and foods with high amounts of fat and sugars
  - Substitute high-calorie foods with low-calorie, nutrient-dense foods such as water-rich/low-starch vegetables, broth-based soups, whole grains, fresh fruits for desserts, and beverages such as water, unsweetened tea, and black coffee.
  - Practice portion control by using smaller plates and restricting intake to one serving

9Coordination with primary care physicians and other involved providers is recommended.

For additional resources see the ASCO Toolkit on Obesity and Cancer: <a href="https://www.asco.org/practice-policy/cancer-care-initiatives/prevention-survivorship/obesity-cancer-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship/obesity-and-the-lives/prevention-survivorship-survivorship-survivorship-survivorship-survivorship-survivorship-survivorship



# The New York Times



NYTIMES.COM

#### **How Food May Improve Your Mood**

The sugar-laden, high-fat foods we often crave when we are stressed or...



# **Taking Control And Fighting Back With Your Fork**



IN PURSUIT OF YOUR CURE.™

#### **Helping Hands**

#### **Tools For Your Tool Box**



The Healthy 10 Challenge is a 10-week interactive program, through AICR, that will help you build healthy habits to eat smarter and move more.

Research suggests that the evidenced-based recommendations not only lower cancer risk, but also help survivors.



#### **Helping Hands**

#### **Tools For Your Tool Box**



About Herbs gives expert advice and information on supplements, integrative medicine treatments, and more. Memorial Sloan Kettering Cancer Center's, tool for the public as well as healthcare professionals.



A Food and Nutrition Nonprofit, helping people live healthier, happier lives. Traditional diets include: Mediterranean, African Heritage, Latin American, Asian Heritage and Vegetarian & Vegan

#### **Helping Hands**

#### **Tools For Your Tool Box**



Myfitnesspal, easy to use! Track food and physical activity daily.



EWG app helps shoppers cut through cluttered food labels so that they can better understand what's in your food. Food Scores rates more than 80,000 foods, 5,000 ingredients and 1,500 brands. Products are rated on a 1 to 10 scale, based on three elements: nutrition, ingredient concerns and degree of processing. Nutrition is weighted most heavily, followed by ingredient concerns and processing. Scan a product, review its rating, it's pros and cons and make a more informed choice.

#### **Taking Control And Fighting Back With Your Fork**

- Ask to speak to a registered dietitian nutritionist (RDN)
- www.eatright.org (Academy of Nutrition and Dietetics find expert in your area)
- Adult Ambulatory Oncology Nutrition REF250
- •Sylvester Comprehensive Cancer Center registered dietitians (Nutrition Services are COMPLIMENTARY)
- Cancer Support Services:(305)243-4129



IN PURSUIT OF YOUR CURE."

#### **Taking Control And Fighting Back With Your Fork**

#### **References:**

American Cancer Society <a href="https://www.cancer.org/cancer/cancer-causes/diet-physical-activity/body-weight-and-cancer-risk/effects.html#:~:text=Being%20overweight%20or%20obese%20is,7%25%20of%20all%20cancer%20deaths.">https://www.cancer.org/cancer/cancer-causes/diet-physical-activity/body-weight-and-cancer-risk/effects.html#:~:text=Being%20overweight%20or%20obese%20is,7%25%20of%20all%20cancer%20deaths.</a>

Center for Disease Control <a href="https://www.cdc.gov/media/releases/2017/p1003-vs-cancer-obesity.html#:~:text=Overweight%20and%20obesity%20are%20associated,Control%20and%20Prevention%20(CDC).">https://www.cdc.gov/media/releases/2017/p1003-vs-cancer-obesity.html#:~:text=Overweight%20and%20obesity%20are%20associated,Control%20and%20Prevention%20(CDC).</a>

**European Society for Parenteral and Enteral Nutrition**<a href="https://www.sciencedirect.com/science/article/pii/S0261561416301819">https://www.sciencedirect.com/science/article/pii/S0261561416301819</a>

Academy of Nutrition and Dietetics www.eatright.org



# Cancer Support Services:

- Arts in Medicine
- Music Therapy
- Oncology massage
- Acupuncture
- Pet Therapy
- Physical Therapy
- Pastoral Care
- Social Work (support groups)
- Physical Medicine and Rehabilitation
- Palliative Care
- Integrative Medicine
- Cancer Resource Center
- Adolescent & Young Adult Program





# Life as a Survivor at Sylvester:

















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Breast Medical Oncologist

Medical Co-Director, Cancer Survivorship

Associate Director of Community Outreach

Assistant Professor of Clinical Medicine



Lesley B. Klein MS, RD, LD/N
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# Thank You



# Questions

