

NUTRITION FOR ONCOLOGY PATIENTS: A TOOLKIT FOR HCPs

October 29, 2024

Provided by The Leukemia & Lymphoma Society



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WELCOME AND INTRODUCTIONS

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Licensed Dietitian/Nutritionist in the State of Tennessee

Certified Diabetes Care and Education Specialist

The Leukemia & Lymphoma Society, Nutrition Education Services Center
Rye Brook, NY



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TARGET AUDIENCE

This activity is intended for oncology nurses, registered dietitians, social workers, and other healthcare professionals involved in the care of patients with cancer.

EDUCATIONAL OBJECTIVES

At the conclusion of this activity, participants will be better able to:

- Describe the benefits of proactive nutrition interventions for a patient with cancer
- Explain the validated nutrition screening tools
- Identify patients at risk of malnutrition by using nutrition screening tools
- Identify patients with food insecurities and address the needs of these patients, including underserved populations
- Provide nutrition education and resources to support patients, caregivers, and healthcare professionals



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CE DESIGNATION

Registered Nursing Credit Designation

Approval for nurses has been obtained by the National Office of The Leukemia & Lymphoma Society under Provider Number CEP 5832 to award 1.0 continuing education contact hour through the California Board of Registered Nursing.

Registered Dietitian Credit Designation

Nutrition for Oncology Patients: A Toolkit for HCPs awards 1.0 CPEUs in accordance with the Commission on Dietetic Registration's CPEU Prior Approval Program.

Social Worker Continuing Education

The Leukemia & Lymphoma Society (LLS) Provider Number 1105, is approved as an ACE provider to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Regulatory boards are the final authority on courses accepted for continuing education credit. ACE provider approval period: 12/10/2023-12/10/2026. Social workers completing this course receive 1.0 clinical continuing education credit.

The Leukemia & Lymphoma Society (LLS) is recognized by the New York State Education Departments State Board for Social Work as an approved provider of continuing education for licensed social workers #0117. LLS maintains responsibility for the program. Social workers will receive 1.5 clinical CE contact hour for this activity.

Support Statement

There is no commercial support associated with this CE activity.

Providers

This activity is provided by The Leukemia & Lymphoma Society.



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DISCLOSURE

Disclosure & Conflict of Interest Policy

The Leukemia & Lymphoma Society requires all persons who may impact the content of a continuing education (CE) activity, including faculty and planners, to fully disclose current and recent financial relationships with commercial interests. A conflict of interest may be considered to exist if such a person has financial relationships with the grantor or any non-eligible entities (commercial interests) that may have a direct impact on the content of the program. Financial relationship is defined as being a shareholder, consultant, grant recipient, research participant, employee, and/or recipient of other financial or material support. Recent is defined as within the past 24 months. These disclosures will be provided to learners prior to the start of the CE activity.

Planning Committee and Content/Peer Reviewers

The planners and content reviewers from The Leukemia & Lymphoma Society do not have any relevant financial relationships to disclose with ineligible companies unless listed below.

Disclosure of Unlabeled Use

This educational activity may contain discussions of published and/or investigational uses of agents that are not indicated by the FDA. The planners of this CE activity do not recommend the use of any agent outside of the labeled indications. The opinions expressed in the accredited CE activity are those of the presenters and do not necessarily represent the views of the planners. Please refer to the official prescribing information for each product for discussion of approved indications, contraindications, and warnings.

Disclaimer

Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and their own professional development. The information presented in this CE activity is not meant to serve as a guideline for patient management. Any procedures, medications, or other courses of diagnosis or treatment discussed or suggested in this CE activity should not be used by clinicians without evaluation of their patient's conditions and possible contraindications and/or dangers in use, review of any applicable manufacturer's product information, and comparison with recommendations of other authorities.



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SPEAKERS

Heather Knutson, MS, RD, CSO, LD

Registered Dietitian, Academy of Nutrition and Dietetics

Licensed Dietitian in the State of Minnesota

Board Certified in Oncology Nutrition

The Leukemia & Lymphoma Society, Nutrition Education Services Center

Rye Brook, NY

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Physician Assistant-Certified

Registered Dietitian

Board Certified in Oncology Nutrition

Compass Oncology, part of The US Oncology Network

Portland, OR



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FACULTY DISCLOSURES

- Heather Knutson – Nothing to disclose.
- Margaret Martin – Nothing to disclose.
- Alison Ryan – Nothing to disclose.



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METHOD OF PARTICIPATION

There are no fees for participating in or receiving credits for this CE activity. For information on applicability and acceptance of continuing education credit for this activity, please consult your professional licensing board.

Learners must participate in the entire CE activity and complete and submit the evaluation form to earn credit. Once completed, the certificate will be generated and emailed to the email address you provide. If you have questions regarding the receipt of your certificate, please contact us via email at ProfEducation@LLS.org.



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WHY IS NUTRITION CARE IMPORTANT FOR A PERSON WITH CANCER?

- Cancer affects many Americans
- Cancer can profoundly affect nutrition status and affect nutrition-related, co-morbid conditions
- Few people have access to nutrition care before, during, or after a cancer diagnosis
- Poor nutrition status is strongly predictive of poor health outcomes and reduced quality of life

Trujillo E. Inadequate Nutrition Coverage in Outpatient Cancer Centers: Results of a National Survey. *Journal of Oncology*. November 2019
<https://onlineibrary.wiley.com/doi/10.1155/2019/7462940>

Lis CG, et al. Role of nutritional status in predicting quality of life outcomes in cancer – a systematic review of the epidemiological literature. *Nutrition Journal*, 2012.

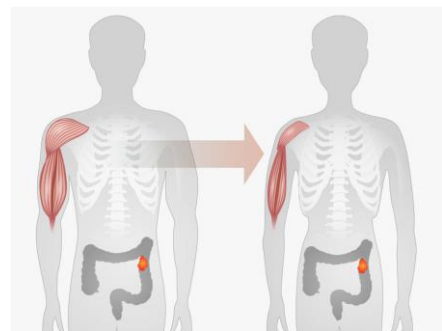


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WHY IS NUTRITION CARE IMPORTANT FOR A PERSON WITH CANCER?

Malnutrition is associated with:

- Longer hospital stays
- Increased morbidity and mortality rates
- Delayed wound healing
- Decreased muscle function and decreased autonomy
- Decreased quality of life



Furthermore, malnutrition negatively affects treatment tolerance (including anticancer drugs, surgery, chemotherapy, and radiotherapy), increased side effects, causes adverse reactions, treatment interruptions, postoperative complications, and higher hospital readmission rates

Van Cutsem, The causes and consequences of cancer-associated malnutrition. *Eur J Oncol Nurs*. 2005.



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WHAT DO YOU THINK OF WHEN YOU HEAR THE WORD MALNUTRITION?



kgtoh/iStock/Thinkstock



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POLLING QUESTION 1

WHAT PERCENT OF PATIENTS WITH CANCER EXPERIENCE MALNUTRITION?

- a) 5-19%
- b) 20-70%
- c) 71-90%
- d) >90%



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POLLING QUESTION 1

WHAT PERCENT OF PATIENTS WITH CANCER EXPERIENCE MALNUTRITION?

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b) 20-70%

c) 71-90%

d) >90%



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DEFINING NUTRITIONAL STATUS/MALNUTRITION

According to the American Society for Parenteral and Enteral Nutrition, Malnutrition is:

- A state of nutrition in which a deficiency, excess, or imbalance of energy, protein, and other nutrients causes measurable adverse effects on body function and clinical outcome.
- Estimates for how many people with cancer will experience malnutrition range from 20% to more than 70%.



Beirer A. Malnutrition and Cancer, diagnosis and treatment. *European Medical Oncology*, 2021.

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UNINTENTIONAL WEIGHT LOSS AND/OR LOSS OF LEAN BODY MASS ARE HALLMARK

- An inflammatory process causes short- and long-term mobilization of fat and lean body tissues
- Inappropriate and continued mobilization of lean tissue
- Failure to preserve lean tissue
- Failure to upregulate hunger hormones
- Sometimes called "Secondary Sarcopenia"



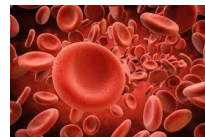
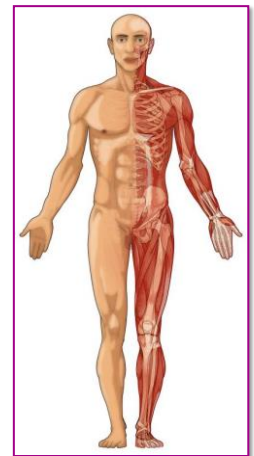
Berardi E, et. al. A Pound of Flesh: What Cachexia Is and What It Is Not. Diagnostics, 2021.

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WHY IS MALNUTRITION SO HARMFUL?

LOSS OF LEAN BODY MASS (LBM)

- Organs
- Muscle
 - Skeletal Muscle: attached to bones and moves the skeleton
 - Smooth Muscle: located in the walls of hollow internal structures
 - Cardiac Muscle: forms the heart
- Bone
- Red and white blood cells, platelets, plasma and serum proteins, connective tissue...



Wardlaw GM, Kessel M. *Perspectives in Nutrition*. 5th ed. New York, NY: McGraw-Hill; 2002.

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MALNUTRITION/UNDERNUTRITION HAS MANY FACES

- Very low BMI is one way to define undernutrition (BMI less than 18.5 kg/m²)
- A change in body weight is another way to define malnutrition
 - Involuntary loss of 10% or more of usual body weight within 6 months, or involuntary loss of greater than or 5% or more of usual body weight in 1 month
 - Involuntary weight loss of 10 lbs in 6 months
- Looks can be deceiving! Someone that appears overweight, may have malnutrition. You must ask the questions to truly assess their nutritional status!
- Eating less than 50-75% of estimated energy needs for more than 1 week is another way to define malnutrition

White JV, Guenter P, et al. Consensus Statement: Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Under-nutrition). *JPEN J Parent Ent Nutr.* 2012; 36:275-283



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LET'S IDENTIFY AN EASY-TO-USE SCREENING TOOL



Identifying patients at risk for malnutrition and early intervention can help reduce these negative outcomes.



Nutritional Risk Screening in Cancer Patients: The First Step Toward Better Clinical Outcome. *Front Nutr.* 2021 Apr 7

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MST— MALNUTRITION SCREENING TOOL

1. Have you lost weight recently without trying?		
No	0	
Unsure	2	
If Yes, how much weight (kg) have you lost?		
1 – 5	1	
6 – 10	2	
11 – 15	3	
> 15	4	
Unsure	2	Weight Loss Score: <input type="text"/>
2. Have you been eating poorly because of a decreased appetite?		
No	0	
Yes	1	Appetite Score: <input type="text"/>
Total MST Score (weight loss + appetite scores)		<input type="text"/>

A score of 2 or more means there is risk for malnutrition!



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NUTRITION INFORMATION RESOURCES— WEB-BASED INFORMATION

- [LLS.org/Nutrition](https://lls.org/nutrition)
- [AICR.org](https://aicr.org)
- [Cancer.org](https://cancer.org)
- [Cancer.gov](https://cancer.gov)
- [CancerSupportCommunity.org](https://cancersupportcommunity.org)



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LLSNUTRITION.ORG



Managing Cancer Side Effects

Nutrition strategies and tips to help manage side effects

Cancer survivors often experience side effects due to cancer and cancer treatments. These effects can be short term or long term. Some side effects happen during treatment. Others can occur once treatment ends. There are many ways to manage side effects—lifestyle changes, nutrition, exercise, medication, and others.

For tips on managing your symptoms, just click on the side effect below:

- ➔ Anemia
- ➔ Bowel and Bladder Control
- ➔ Cardiac Issues
- ➔ Change in Taste and Smell
- ➔ "Chemo Brain" (Cognitive Issues)
- ➔ Constipation
- ➔ Diarrhea
- ➔ Difficulty Swallowing
- ➔ Dry, Itchy Skin
- ➔ Dry Mouth
- ➔ Emotional Distress
- ➔ Fatigue
- ➔ Feeling Full Quickly
- ➔ Gas and Bloating
- ➔ Hypothyroidism
- ➔ Insomnia and Difficulty Sleeping
- ➔ Lactose Intolerance
- ➔ Loss of Appetite
- ➔ Lymphedema
- ➔ Menopause
- ➔ Nausea
- ➔ Neuropathy
- ➔ Pain
- ➔ Reflux, Heartburn, GERD
- ➔ Sexual Dysfunction: Female
- ➔ Sexual Dysfunction: Male
- ➔ Sore Mouth, Throat, and Tongue
- ➔ Weight Gain
- ➔ Weight Loss



AMERICAN INSTITUTE FOR CANCER RESEARCH (AICR)

Cancer Prevention
Cancer Survival
IMPACT
RESOURCES
RESEARCH
SUPPORT

CANCER SURVIVAL

Take Control of Your Health

Moving through a cancer diagnosis can be challenging and confusing. Arming yourself with information can help. AICR's library of resources can help you navigate questions about nutrition and lifestyle, and empower you to advocate for your health.

Treatment Tips

How you "approach" your treatment may impact how you respond to treatment. Eating well and staying active may help you cope with treatments, combat side effects, and improve your quality of life.

- ➔ Before Treatment ➔
- ➔ During Treatment ➔
- ➔ After Treatment ➔

Take Action

Find the tools you need to manage your everyday well-being. AICR's interactive nutrition and lifestyle programs can help you understand your body's dietary needs, create tailored meal plans, help you move more and connect you with meaningful support.

- ➔ Healthy10 Challenge ➔
- ➔ New American Plate ➔
- ➔ Coping with Cancer in the Kitchen ➔



AICR.ORG

Dealing With Treatment Side Effects

- + Fatigue
- + Loss of Appetite, Weight Loss, and Undernutrition
- + Weight Gain
- + Fluid Retention
- + Nausea
- + Vomiting
- + Diarrhea



CANCER.ORG

[All About Cancer](#) > [Survivorship: During and After Treatment](#) > [Coping and Living Well During Cancer Treatment](#) >



Nutrition for People With Cancer

Nutrition During Cancer Treatment

Learn about nutrition needs during treatment and how to manage treatment side effects that could affect how well you eat.

- [Benefits of Good Nutrition During Cancer Treatment](#)
- [Preparing for Treatment with Good Nutrition](#)
- [Eating Well During Treatment](#)
- [Food Safety During Cancer Treatment](#)
- [High-Fiber and Low-Fiber Foods](#)
- [Managing Eating Problems Caused by Cancer Treatments](#)

More information

Get more nutrition information from the American Cancer Society.

- [Nutrition for the Person With Cancer During Treatment: A Guide for Patients and Families \[PDF\]](#)
- [Nutrition and Physical Activity During and After Cancer Treatment: Answers to Common Questions](#)
- [Eating Well After Treatment](#)
- [Nutrition for Children with Cancer](#)
- [Diet, Physical Activity, and Healthy Living](#)

[Download Section as PDF](#)



CANCER.ORG



Nutrition for the Person With Cancer During Treatment



Find Healthy Recipes

Good health starts with good nutrition. Get started today with some of these healthy recipes from our [American Cancer Society cookbooks](#).



Appetizers and Side Dishes →



Main Dishes →



Sweet Treats →



CANCER.GOV



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[Home](#) > [About Cancer](#) > [Cancer Treatment](#) > [Side Effects of Cancer Treatment](#) > [Weight Changes & Appetite Loss](#) > Nutrition in Cancer Care (PDQ®)–Patient Version

Cancer Treatment

[Types of Cancer Treatment](#) >

Side Effects of Cancer Treatment

[A to Z List of Cancer Drugs](#) >

[Complementary & Alternative Medicine \(CAM\)](#) >

[Questions to Ask about Your Treatment](#)

[NIH Clinical Center](#)

[Research](#)

Nutrition in Cancer Care (PDQ®)–Patient Version

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- [Effects of Cancer Treatment on Nutrition](#)
- [Nutrition Assessment in Cancer Care](#)
- [Treatment of Symptoms](#)
- [Types of Nutrition Support](#)
- [Medicines to Treat Loss of Appetite and Weight Loss](#)
- [Nutrition Needs at End of Life](#)
- [Nutrition Trends in Cancer](#)
- [To Learn More About Nutrition and Cancer Care](#)
- [Current Clinical Trials](#)
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NIH NATIONAL CANCER INSTITUTE

Support for People with Cancer

Eating Hints: Before, during, and after Cancer Treatment



U.S. Department of Health & Human Services | National Institutes of Health



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CANCERSUPPORTCOMMUNITY.ORG

Home > Get Educated & Inspired > Navigating Cancer > Diet & Nutrition

Diet & Nutrition During Cancer Treatment



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**FRANKLY
SPEAKING**
ABOUT CANCER

Eating Well During
Cancer Treatment



Explore Our Recipe Gallery

A healthy diet is an important part of a cancer patient's journey before, during, and after treatment.

Start Cooking



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PATIENT & CAREGIVER RESOURCES— FOR NUTRITION SCREENING & ASSESSMENT

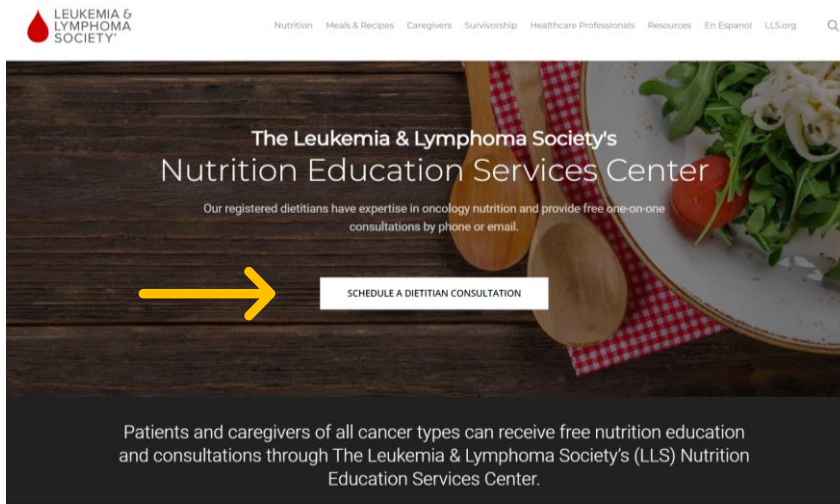
- Nutrition Education Services Center, LLS:
www.LLSnutrition.org
- Dial a Dietitian:
www.nutritionforstrength.com
- Cancer Nutrition Care:
www.cancernutritioncare.com
- Find a Nutrition Expert - Academy of Nutrition and Dietetics:
www.eatright.org/find-a-nutrition-expert
- Cultured Health:
www.iamculturedhealth.com



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NUTRITION EDUCATION SERVICES CENTER, LLS

www.LLSnutrition.org



- Free
- All cancer types
- Patients & caregivers



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DIAL A DIETITIAN

www.nutritionforstrength.com



[Nutrition For Your Fight](#) [For Side Effects](#) [For Treatments](#) [Stories](#) [About Us](#) [Resources](#)

DIAL A DIETITIAN

Nutrition questions? We can Help.

Available in the U.S. only.



1-800-986-8912

8:30AM-5PM MONDAY-FRIDAY EST

- Free
- All cancer types
- Patients & caregivers



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CANCER NUTRITION CARE

www.cancernutritioncare.com



#1
Nutrition Screenings
 NO COST nutrition screenings & reviews.
[Click Here →](#)

#2
Initial Consult
 Speak with a CNC Oncology Dietitian! (no cost)
[Click Here →](#)

#3
Book an Oncology Dietitian
 Book your consultation Today!
[Click Here →](#)

- No charge screening
- Dietitian appointments are charged
- Continued follow up available



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ACADEMY OF NUTRITION & DIETETICS: FIND A NUTRITION EXPERT

www.eatright.org/find-a-nutrition-expert

The screenshot shows the top navigation bar with 'eatright.org' logo, 'Academy of Nutrition and Dietetics', 'About RDNs and NDTRs', 'Become an RDN', and a 'Find a Nutrition Expert' button. Below is a menu with categories like Food, Health, Fitness, Recipes, Kids, Seniors, Men, Women, and LGBTQ. A search bar is present. The main heading is 'Find a Nutrition Expert™' with a subtext: 'Search our database of credentialed nutrition and dietetics practitioners by location, specialty, language or insurance and payment options.' The search form includes radio buttons for 'In-Person' (highlighted by a yellow arrow) and 'Telehealth', a location input field 'Enter zip code or city and state', and a 'Find Now' button. At the bottom, there is a checkbox for 'I've read and agree with the Terms and Conditions'.

- Cost varies
- May bill insurance
- Continued follow up available



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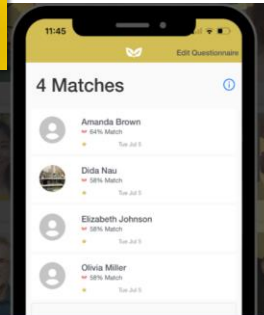
CULTURED HEALTH

www.iamculturedhealth.com



Cultured Health is the preeminent global hub for culturally diverse registered dietitians.

Download App



Join us in creating a healthier, more culturally connected world.
Download the app and sign up today!



- Culturally aligned
- Cost varies
- May bill insurance
- Continued follow up available



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RESOURCES FOR NUTRITION SERVICES IN YOUR ORGANIZATION OR COMMUNITY

- Call or email your local dietitian
- Consult with your social workers for local and other resources



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LET'S TAKE A LOOK AT FOOD INSECURITY



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POLLING QUESTION 2

IS FOOD INSECURITY A MODIFIABLE FACTOR IN CANCER CARE?

- a) Yes, addressing food insecurity can improve treatment adherence and overall health outcomes in cancer patients.
- b) No, food insecurity has no impact on cancer care and is unrelated to treatment success.
- c) Yes, but only in certain populations where nutrition is less emphasized in treatment plans.
- d) No, because food insecurity is primarily a social issue that does not affect medical care directly.



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POLLING QUESTION 2

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- c) Yes, but only in certain populations where nutrition is less emphasized in treatment plans.
- d) No, because food insecurity is primarily a social issue that does not affect medical care directly.



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DEFINING FOOD INSECURITY

- A “household-level economic and social condition of limited or uncertain access to adequate food” for an active, healthy life”



[US Department of Agriculture](#)



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FACTORS INCREASING RISK OF FOOD INSECURITY



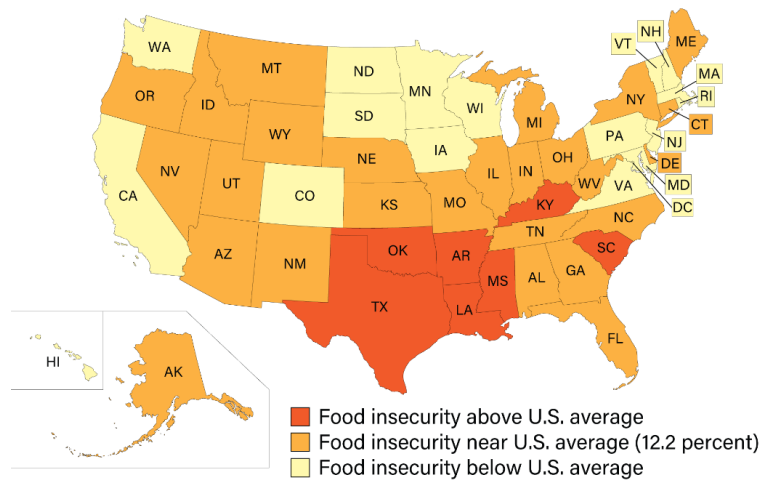
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PREVALENCE OF FOOD INSECURITY (FI) IN THE US

- 18 million (13.5%) of US households were FI in 2023 ([USDA](#))
- Households with children, Black and Hispanic households, and single-parent households experience FI at even higher rates
- Inability to shop, carry food home, and prepare nutritious meals can affect older adults' FI as much as financial issues ([Older Adults FI](#))

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PREVALENCE OF FOOD INSECURITY, 2021-2023



Note: States that are categorized as near U.S. average have prevalence rates not statistically significantly different from the U.S. average.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2021, 2022, and 2023 Current Population Survey Food Security Supplements.



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POLLING QUESTION 3:

CANCER SURVIVORS WHO EXPERIENCE FOOD INSECURITY ARE MORE LIKELY TO EXPERIENCE:

- a) Desired weight loss
- b) Depression
- c) Community support
- d) Ease in access to resources



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POLLING QUESTION 3:

CANCER SURVIVORS WHO EXPERIENCE FOOD INSECURITY ARE MORE LIKELY TO EXPERIENCE:

- a) Desired weight loss
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- d) Ease in access to resources



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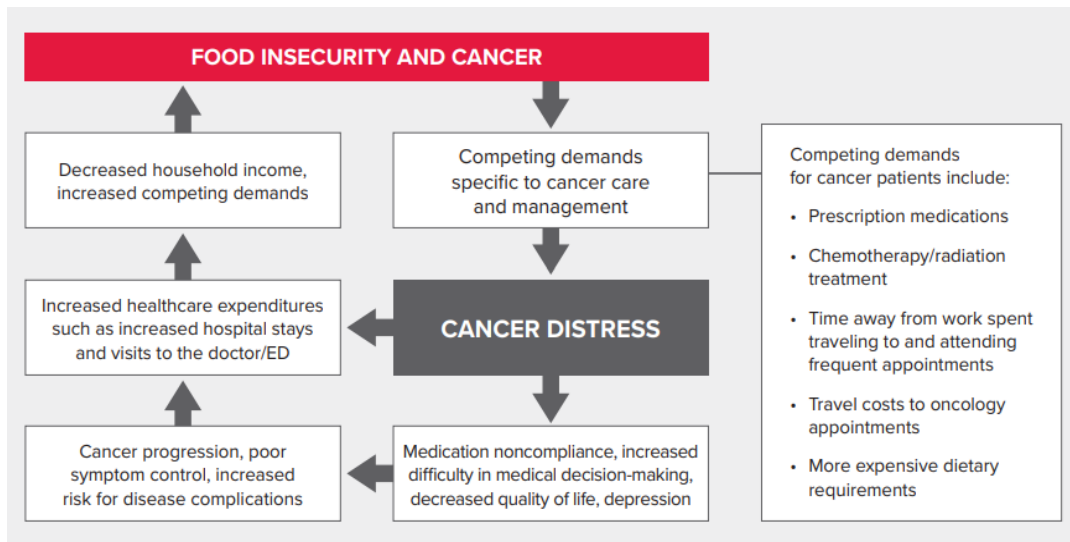
FOOD INSECURITY (FI) IN CANCER SURVIVORS

- 32% of cancer survivors vs 10.5% of all households reported food insecurity in 2018-2021 ([Charkhchi et al](#) & [USDA](#))
- Malnutrition can be a by-product of FI, especially when available food may carry lower nutrient quality = nutrition insecurity
- Cancer survivors with FI experience:
 - ↓ QOL and ↓ health outcomes ([Kolesar et al](#))
 - ↑ Symptoms (fatigue, pain, & sleep challenges) ([ACCC](#))
 - ↓ Medication adherence ([ACCC](#))



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FOOD INSECURITY (FI) IN CANCER SURVIVORS



[Patel, K.G.etal](#)

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HOW DO WE IDENTIFY THOSE AT RISK FOR FI?



Identifying patients at risk for food insecurity and early intervention can help reduce these negative outcomes.

[Robien, K.etal](#)

LEUKEMIA & LYMPHOMA SOCIETY

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IDENTIFY PATIENTS AT RISK FOR FI

Hunger Vital Sign™



Preface questions with "I ask all of my patients about access to food. There are many community resources available often free of charge for individuals. For each statement, please tell me if it was often true, sometimes true, or never true."	Date:		
	Often True	Sometimes True	Never True
1. Within the past 12 months I/we were worried whether our food would run out before we got money to buy more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Within the past 12 months the food I/we bought just didn't last and I/we didn't have the money to get more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
"Often true" or "sometimes true" to any statement indicates the patient is at risk for food/nutrition insecurity.			

[Hager, E. R. et al.](#)



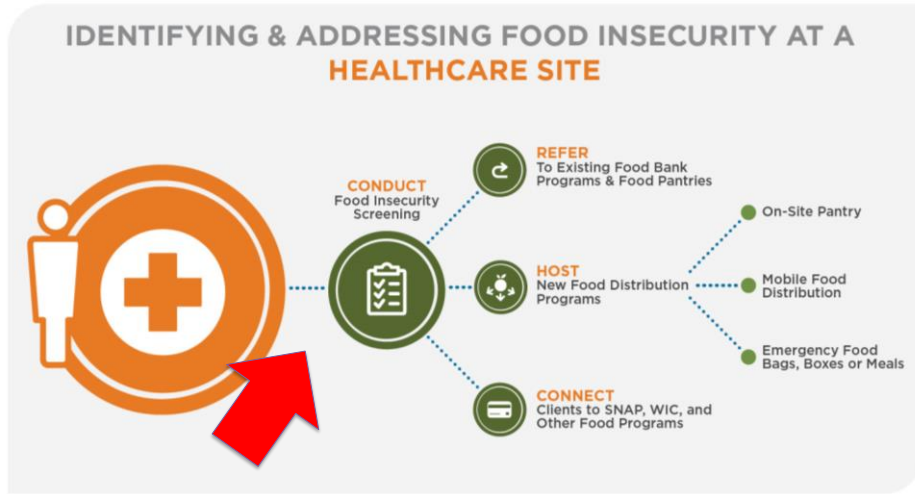
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NOW THAT YOU KNOW WHAT TO LOOK FOR, HOW CAN YOU HELP?



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ADDRESS FOOD INSECURITY IN HEALTH CARE SETTINGS



Feedingamerica.org



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LLS FOOD INSECURITY RESOURCES

PATIENTS

www.LLS.org/booklets

HEALTHCARE PROFESSIONALS Food Insecurity Fact Sheet

www.LLS.org/HCPbooklets



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FOOD INSECURITY RESOURCES FOR PATIENTS

- Health Insurance Benefits: meals, medically tailored meals, food boxes, grocery vouchers
- Employer Resources & Employee Assistance Programs
- Federal Food Programs – SNAP, WIC, Meals On Wheels, Meals for Children and Food Programs for Seniors:
www.nutrition.gov/topics/food-security-and-access/food-assistance-programs
- Military & Veteran Families: www.bluestarfam.org/food-insecurity-resources/
- Local Food Resources: www.freefood.org/
- Local Resources (food, housing, transportation & more in multiple languages):
www.findhelp.org



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FOOD INSECURITY RESOURCES FOR PATIENTS

- Why Hunger: whyhunger.org/find-food
- Food is Medicine Coalition: fimcoalition.org/find-agency
- Feeding America: feedingamerica.org/need-help-find-food
- Mini Pantry Movement: littlefreepantry.org/
- No Kid Hungry: impact.nokidhungry.org/free-meal-finder
- MyPlate.gov: Shop Simple tools for local food savings
- LLS Food Assistance Resources & Tips: lls.org/booklet/food-assistance-resources-and-tips
- Shop Simple with My Plate: myplate.gov/app/shopsimple



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FOOD INSECURITY RESOURCES FOR HCPS

- Food Insecurity in the US: hungercenter.org/publications/food-insecurity-in-the-u-s-problems-programs-and-policy-discussion-guide/#pt4
- Health Care Partnerships Action Plan: learninghub.feedingamerica.org/best-practices/toolkit/uploads/5-HCP%20Action%20Plan-Referrals_1702745852.pdf
- Toolkit Food Bank–Health Care Partnerships: feedingamerica.org/sites/default/files/2023-07/FA_HCP_Toolkit_2022_FINAL.pdf
- LLS Food Insecurity for Health Care Providers: lls.org/booklet/food-insecurity
- LLS CE: Food to Address Outcomes: Strategies to Support Patients with Cancer Facing Food Insecurity: lls.org/professional-education-webcasts/food-address-outcomes-strategies-support-patients-cancer-facing



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CASE STUDIES



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CASE STUDY #1

DH is a 63-year-old female referred to oncologist
PCP found abnormal labs on her annual physical

PMH: High blood pressure

Subjective: Patient reports fatigue, feeling full easily, not finishing her meals, and weight loss of 14 lbs in the last 2 months.

Labs: WBC ↑ , lymphocytes ↑ , Hemoglobin ↓ , Platelets ↓ , LDH ↑

Medications: Lisinopril

Physical exam: Mild temporal muscle wasting, spleen palpable at 4 cm below costal margin



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CASE # 1 LET'S PERFORM MST!

- Have you lost weight without trying?
 - Yes, 6.4 kg
- Have you been eating poorly because of a decreased appetite?
 - Yes!

1. Have you lost weight recently without trying?		
No	0	
Unsure	2	
If Yes, how much weight (kg) have you lost?		
1 – 5	1	
6 – 10	2	←
11 – 15	3	
> 15	4	
Unsure	2	Weight Loss Score: <input type="text" value="2"/>
2. Have you been eating poorly because of a decreased appetite?		
No	0	
Yes	1	← Appetite Score: <input type="text" value="1"/>
Total MST Score (weight loss + appetite scores)		<input type="text" value="3"/>



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Visit www.LLSnutrition.org and see the list of symptoms that you can click on to find out strategies to address her concerns.



For tips on managing your symptoms, just click on the side effect below:

- Anemia
- Bowel and Bladder Control
- Cardiac Issues
- Change in Taste and Smell
- "Chemo Brain" (Cognitive Issues)
- Constipation
- Diarrhea
- Difficulty Swallowing
- Dry, Itchy Skin
- Dry Mouth
- Emotional Distress
- Fatigue
- Feeling Full Quickly
- Gas and Bloating
- Hypothyroidism
- Insomnia and Difficulty Sleeping
- Lactose Intolerance
- Loss of Appetite
- Lymphedema
- Menopause
- Nausea
- Neuropathy
- Pain
- Reflux, Heartburn, GERD
- Sexual Dysfunction: Female
- Sexual Dysfunction: Male
- Sore Mouth, Throat, and Tongue
- Weight Gain
- Weight Loss



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POLLING QUESTION 4

OF THE FOLLOWING, WHICH SYMPTOMS WOULD YOU SELECT FIRST TO ADDRESS WITH THIS PATIENT?

- a) Feeling Full Quickly
- b) Diarrhea
- c) Loss of Appetite
- d) Weight Loss
- e) A, C, and D



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POLLING QUESTION 4

OF THE FOLLOWING, WHICH SYMPTOMS WOULD YOU SELECT FIRST TO ADDRESS WITH THIS PATIENT?

- a) Feeling Full Quickly
- b) Diarrhea
- c) Loss of Appetite
- d) Weight Loss

e) A, C, and D



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CASE STUDY #1

Eat small, frequent meals instead of 3 large meals.

- Eat at least 5-6 small meals or snacks per day.
- Eat every 2-3 hours even if you do not feel hungry.
- Set a timer to remind you when it is time to eat.
- Eat the most when you feel hungriest.
- Eat foods high in protein such as chicken, fish, meat, eggs, nuts, and beans first.

Use smoothies and shakes to get in calories and protein.

- Liquids can be easier to consume than solid foods.
- Smoothies or shakes can serve as a small meal replacement.
- Add ingredients such as whole milk, powdered milk, protein powder, peanut butter, ice cream or yogurt to smoothies or shakes to add calories and protein.
- Premade liquid nutrition supplements are available at grocery and drug stores. Ask a registered dietitian which type is best for you.
- Ingredients such as whole milk, peanut butter, ice cream, yogurt, or fruit can be added to liquid nutrition supplements.

Add more fats to foods to increase the calories.

- Fat has more calories per gram than carbohydrates and protein.
- Use butter, oils, mayonnaise, sour cream, and salad dressings liberally.
- When cooking, use oil or butter instead of a nonstick spray.
- Add mayonnaise to sandwiches and tuna or chicken salad.
- Add peanut butter or cream cheese to toast and crackers.

Drink most fluids between meals instead of with meals.

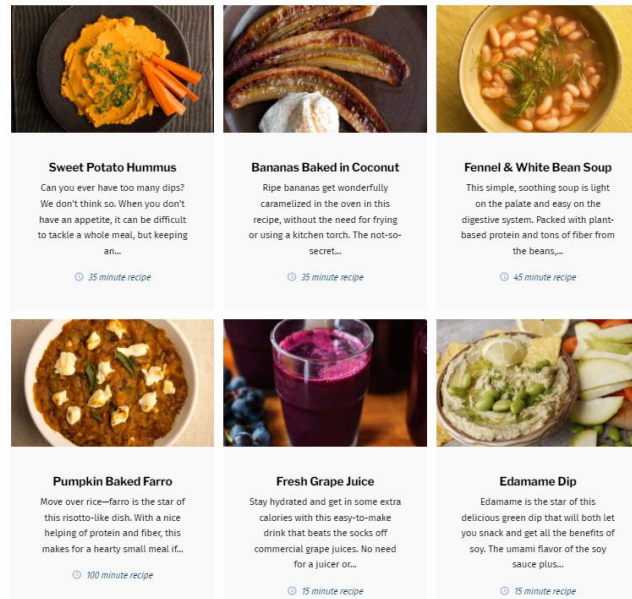
- Drinking liquids such as water, juice, or soda while you eat can make you feel full faster.
- Drink only small amounts of liquids with meals.
- Drink higher calorie fluids like juice or milk between meals.
- Drink smoothies, shakes, and liquid nutrition supplements with a meal or in place of a meal.



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CASE STUDY #1

- You also want to help her with some recipe ideas
- Direct her to [aicr.org](https://www.aicr.org) to find healthy, high calorie or protein recipes



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CASE STUDY # 2

NC 52-year-old male was referred to oncologist
 PCP noted extreme fatigue, abnormal renal blood values, reduced hours at work, caring for new grandchild, complaints of back pain, and screens "not at risk" for malnutrition



PMH: Well-nourished male, GERD mild

Subjective: Patient reports fatigue after playing basketball, needs to take naps, and back pain the past month.

Labs: Elevated Creatinine, low Hgb, elevated Calcium

Medications: Omeprazole

Physical exam: Point tenderness on skeletal back exam



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POLLING QUESTION 5

WHAT WOULD YOU DO NEXT FOR THIS PATIENT?

- a) Refer NC to PT for cancer prehab.
- b) Educate NC on area food resources to help with fatigue.
- c) Screen NC for food insecurity.
- d) Refer NC to oncology dietitian for oncology nutrition education.



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POLLING QUESTION 5

WHAT WOULD YOU DO NEXT FOR THIS PATIENT?

- a) Refer NC to PT for cancer prehab.
- b) Educate NC on area food resources to help with fatigue.
- c) Screen NC for food insecurity.**
- d) Refer NC to oncology dietitian for oncology nutrition education.



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CASE STUDY # 2

LET'S PERFORM THE HUNGER VITAL SIGN™



Preface questions with "I ask all of my patients about access to food. There are many community resources available often free of charge for individuals. For each statement, please tell me if it was often true, sometimes true, or never true."	Date:		
	Often True	Sometimes True	Never True
1. Within the past 12 months I/we were worried whether our food would run out before we got money to buy more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Within the past 12 months the food I/we bought just didn't last and I/we didn't have the money to get more.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
"Often true" or "sometimes true" to any statement indicates the patient is at risk for food/nutrition insecurity.			

Hager, E. R. et al.



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CASE STUDY # 2

LET'S PERFORM THE HUNGER VITAL SIGN™



Preface questions with "I ask all of my patients about access to food. There are many community resources available often free of charge for individuals. For each statement, please tell me if it was often true, sometimes true, or never true."	Date:		
	Often True	Sometimes True	Never True
1. Within the past 12 months I/we were worried whether our food would run out before we got money to buy more.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Within the past 12 months the food I/we bought just didn't last and I/we didn't have the money to get more.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
"Often true" or "sometimes true" to any statement indicates the patient is at risk for food/nutrition insecurity.			

Hager, E. R. et al.



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CASE STUDY # 2

You have screened him and determined that he is at risk for food insecurity. What do you do?



- Practice empathy
- Ask permission to refer him to a social worker who can match him with resources
- Share a list of food resources in your area



CASE STUDY # 2

Community Resources
EXAMPLE ONLY

Food Crisis Utilities **2 1 1**



FOOD

	NAME	PHONE	ADDRESS	EMAIL
Food Pantry	Your Local Community Church	555-123-4567	4567 Main St	adrian@contoso.com
Food Pantry Search		866-3-HUNGRY		www.foodpantries.org www.whyhunger.org
Food Give Away Event	Your hospital on Last Friday of each month	555-567-8901	911 1 st Blvd	Hospitalheals@991.com
WIC, SNAP, Commodity Foods Programs, Meals on Wheels	Dept of Human Services	555-321-0987 Local SNAP 800-221-5689	211 Meridian St	www.yourcountyservicesdept.org
Pet Food Pantry	Humane Society	555-789-0123	57 Heinz Ave	www.cityhumanesociety.net



CASE STUDY # 2



USDA Food and Nutrition Service
U.S. DEPARTMENT OF AGRICULTURE

CONTACT US | REPORT FRAUD | ASKUSDA | USDA.GOV

HOME | PROGRAMS | DATA & RESEARCH | FUNDING | NEWSROOM | RESOURCES | OUR AGENCY



Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

WIC serves about 40 percent of all infants in the United States.

<https://www.fns.usda.gov/wic>



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CASE STUDY # 2



USDA Food and Nutrition Service
U.S. DEPARTMENT OF AGRICULTURE

CONTACT US | REPORT FRAUD | ASKUSDA | USDA.GOV

HOME | PROGRAMS | DATA & RESEARCH | FUNDING | NEWSROOM | RESOURCES | OUR AGENCY



Supplemental Nutrition Assistance Program (SNAP)

SNAP reduces poverty and food insecurity while stimulating economic growth.

<https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program>



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CASE STUDY # 2



<https://www.brevardschools.org/page/employee-assistance-program>



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CASE STUDY # 2



<https://www.nchealthinfo.org/health-topics/health-insurance/>



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CASE STUDY # 2



Personalized Support

Our highly trained oncology professionals have expertise in pediatric and adult blood cancers and are available to speak with you, one-on-one, at no cost.

Call **800.955.4572**
Monday to Friday, 9 a.m. to 9 p.m. ET

Visit www.LLS.org/PatientSupport



Find support for: Leukemias · Lymphomas · Myeloma · Myelodysplastic syndromes · Myeloproliferative neoplasms (myelofibrosis, polycythemia vera, essential thrombocythemia)



CASE STUDY # 2



FOOD ASSISTANCE RESOURCES AND TIPS

Millions of Americans are unable to access healthy foods because of finances, lack of nearby grocery stores and/or transportation. The following resources and tips can help you save money and access healthy foods.

Meal Planning and Grocery Shopping

Meal planning is one way to save time and money. By planning out each week's breakfast, lunch, and dinner, you can use foods you already have in your home, use leftovers, cut down food preparation time, make just one trip to the store, and more easily stick to a grocery list which helps you keep to your budget. Here are some tips to prepare for your next grocery trip.

- Before you leave for the store**
- Create a grocery list based on your meal plan.
 - Take note of what food is left in the refrigerator, freezer, and pantry. Foods that expire soon should be used first.
 - Research for coupons and sales.

At the grocery store

- Stick to your grocery list.
- Do not shop while hungry.
- Buy foods in bulk that you eat often or have a longer shelf life. Visit www.foodsafety.gov to learn about safe food storage.
- Buy generic (store brands) and avoid buying convenience items, such as pre-cut fruits and vegetables or prepared meals.
- Choose fruits and vegetables that are in season as they are often less expensive. Canned and frozen fruits and vegetables are also good options.

After shopping

Make large portions and freeze leftovers to heat up for additional meals.



SEASONAL PRODUCE GUIDE

Spring: Apricots, Asparagus, Broccoli, Green Beans, Mangoes, Mushrooms, Peas, Radishes, Rhubarb, Spinach, Strawberries, Swiss Chard

Summer: Avocados, Bell Peppers, Berries, Cantaloupe, Cherries, Corn, Cucumbers, Eggplant, Green Beans, Honeydew Melons, Kiwis, Okra, Peaches, Plums, Summer Squash, Tomatoes, Watermelons

Fall: Apples, Beets, Broccoli, Cauliflower, Cranberries, Grapes, Kale, Mushrooms, Parsnips, Pears, Potatoes, Pumpkins, Rutabagas, Sweet Potatoes, Turnips, Winter Squash

Winter: Beets, Brussel Sprouts, Grapefruits, Kiwis, Leeks, Lemons, Oranges, Parsnips, Pears, Potatoes, Pumpkins, Rutabagas, Sweet Potatoes, Winter Squash

To find specific seasonal produce in your area, visit www.seasonalfoodguide.org



www.LLS.org/booklet/food-assistance-resources-and-tips



CALL TO ACTION!



- Screen your patients who have been diagnosed with cancer for malnutrition and food insecurity
- Refer patients at risk to nutrition services and food resources in your community or online
- Empower your patients with information to help themselves and direct them to reputable online resources



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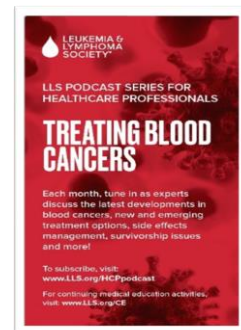
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FREE LLS RESOURCES FOR HEALTHCARE PROFESSIONALS

- CME & CE courses: www.LLS.org/CE
- Fact Sheets for HCPs: www.LLS.org/HCPbooklets
- Videos for HCPs: www.LLS.org/HCPvideos
- Podcast series for HCPs: www.LLS.org/HCPpodcast



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FREE LLS RESOURCES FOR PATIENTS

- ❑ **Information Specialists** – Personalized assistance for managing treatment decisions, side effects, and dealing with financial and psychosocial challenges (IRC).
 - www.LLS.org/IRC
- ❑ **Clinical Trial Nurse Navigators** – RNs and NPs provide a personalized service for patients seeking treatment in a clinical trial, sift through the information and provide information to bring back to their HC team (CTSC).
 - www.LLS.org/CTSC
- ❑ **Reach out Monday–Friday, 9 am to 9 pm ET**
 - Phone: (800) 955-4572
 - Live chat: www.LLS.org/IRC
 - Email: www.LLS.org/ContactUs
 - HCP Patient Referral Form: www.LLS.org/HCPreferral



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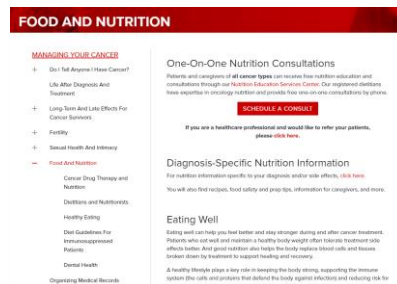
FREE LLS RESOURCES FOR PATIENTS AND CAREGIVERS

❑ Webcasts, Videos, Podcasts, booklets:

- www.LLS.org/Webcasts
- www.LLS.org/EducationVideos
- www.LLS.org/Podcast
- www.LLS.org/Booklets

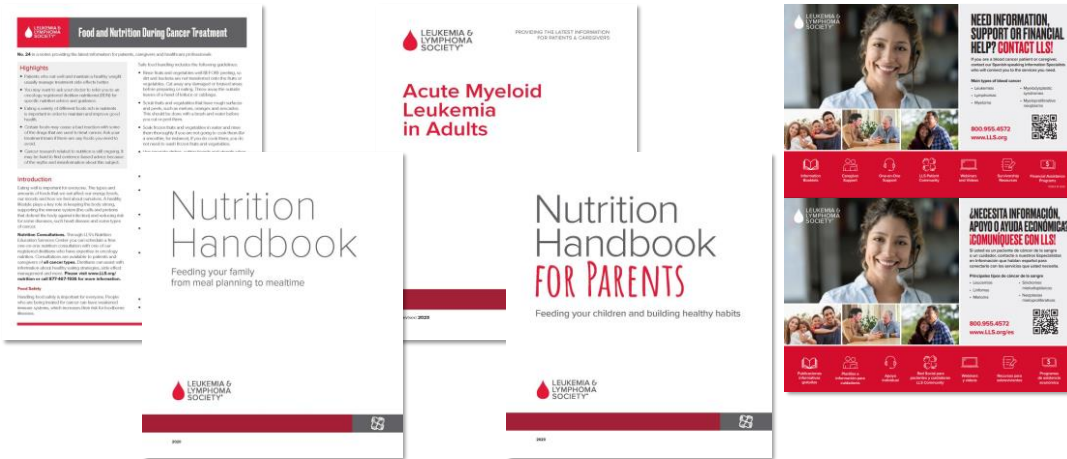
❑ Support Resources

- ❑ Financial Assistance: www.LLS.org/Finances
 - Urgent Need
 - Patient Aid
 - Travel Assistance
- ❑ Other Support: www.LLS.org/Support
 - LLS Regions
 - Online Weekly Chats Facilitated by Oncology SW
 - LLS Community Social Media Platform
 - First Connection Peer to Peer Program



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FREE LLS RESOURCES FOR YOUR PATIENTS



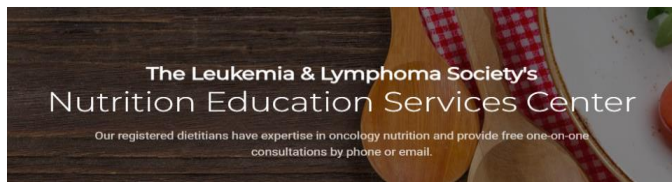
BOOKLETS AND FACT SHEETS

English – www.LLS.org/Booklets
 Spanish – www.LLS.org/Materiales



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NUTRITION EDUCATION SERVICES CENTER (NESC)



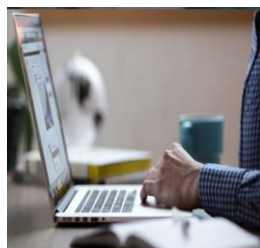
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☐ One-on-one consultation with a registered dietitian for patients/caregivers of all cancer types

- www.LLSNutrition.org
- www.LLS.org/Nutrition



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Q & A



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YOU**

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