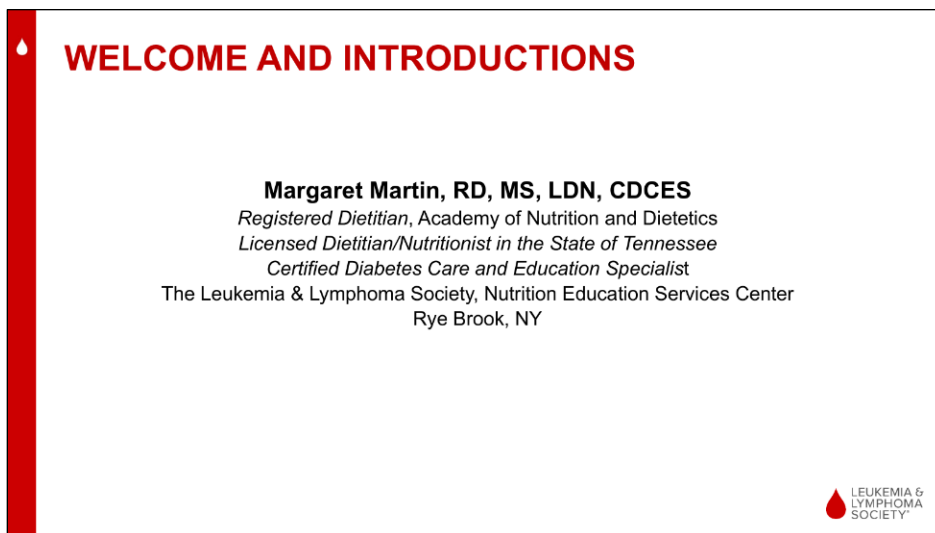
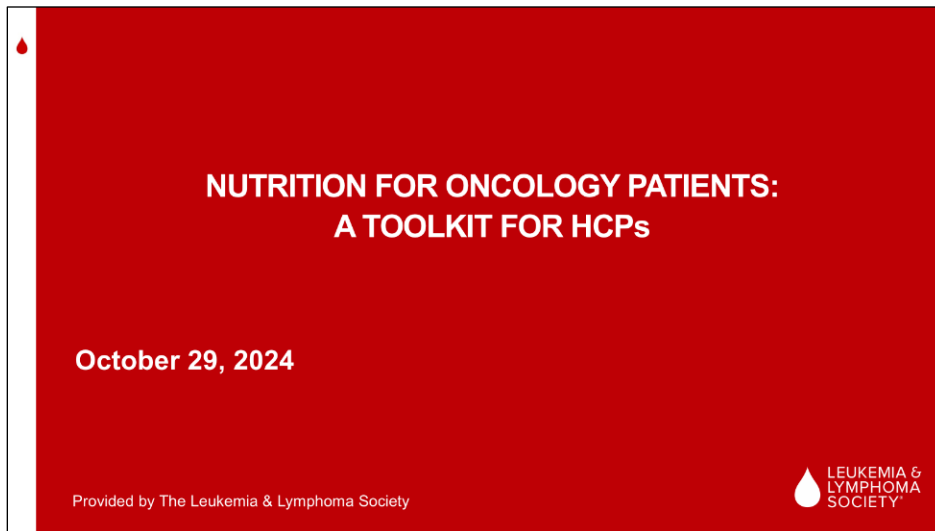


**WELCOME AND INTRODUCTION**



**Margaret Martin, RD, MS, LDN, CDCES**

On behalf of The Leukemia & Lymphoma Society (LLS), thank you for joining us for Nutrition for Oncology Patients: A Toolkit for HCPs. Through healthcare, professional education, patient education, and support resources, LLS is committed to improving patients' quality of life. LLS advocates for funding to accelerate the discovery and development of blood cancer therapies and is the largest nonprofit funder of blood cancer research – investing over 1.7 billion worldwide since 1949. Later, I will share resources about education and other types of resources.

## 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



The learning objectives for today's program are listed on this slide.

## 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.



Details on continuing education credit is listed here.

## 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.



Disclosure information is listed on this slide.

## 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

### Alison Ryan, PA-C, MS, RD, CSO

Physician Assistant-Certified  
Registered Dietitian  
Board Certified in Oncology Nutrition  
Compass Oncology, part of The US Oncology Network  
Portland, OR



I'm now honored to introduce our faculty, Heather Knutson, a registered dietitian with The Leukemia & Lymphoma Society, is based in Rye Brook, New York. Alison Ryan is a physician assistant and registered dietitian at Compass Oncology in Portland, Oregon.

## **FACULTY DISCLOSURES**

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



Faculty disclosures are here for your reference.

## **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](mailto:ProfEducation@LLS.org).



To receive credit for participating, please complete the evaluation at the end of the program. Once submitted, a certificate will be generated and emailed to you. Your feedback is important to us to plan future programs [and] is also required for you to receive continuing education credit. Heather and Alison, thank you for volunteering your time today and expertise with us. It is now my pleasure to turn the program over to you.

**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://onlinelibrary.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.



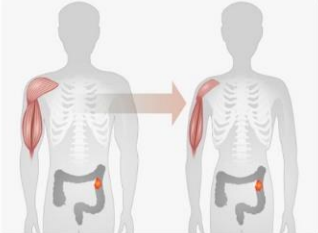
**Alison Ryan, PA-C, MS, RD, CSO**

Thank you so much, Margaret. We're really happy to be here. So, we're going to start off [by] talking a little bit about why nutrition care is important for a person with cancer. As many of you know, cancer affects many Americans. As of 2019, there were over 1.7 million new cases reported. Cancer can profoundly affect nutrition status and nutrition-related comorbid conditions, such as: a certain treatment may affect someone's blood sugar levels, or someone's nutritional status being somewhat compromised may affect things like their functional status and their ability to engage in daily activities. Unfortunately, few people actually have access to nutrition care before, during, and after their cancer diagnosis, and we know that poor nutritional status is strongly predictive of poor health outcomes and reduced quality of life. We're going to try to give you some tools today for what to do about this.

### 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

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

So why is nutrition care important for a person with cancer? Malnutrition can result in longer hospital stays, increased morbidity and mortality rates. It can affect wound healing, as in delayed wound healing, decreased muscle function, and decreased autonomy. Again, a patient may lose the ability to participate in daily physical activities or to even just get around their house preparing meals for themselves. That can result in a decreased quality of life. Also, malnutrition can affect their treatment tolerance. I've had it where we have to hold people's treatments because their nutritional status was so compromised. So maybe we delay their treatment, we take a treatment interruption. They may have more side effects to their treatment because of malnutrition. It can result in postoperative complications, especially if they go into a major surgery nutritionally compromised, and it can increase the hospital readmission rate.

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



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igto/viStock/Thinkstock


So, what do we think of when we hear the word malnutrition? It can be a variety of different things. It's not always just a very underweight, thin-appearing person. It can be hidden amongst people that appear to be, maybe, normally nourished. So again, just kind of a word plot there of different things we may think about. We're going to get into the definition of malnutrition.

**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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But let's start with our first polling question. Try to guess how many people that are going through cancer treatment are experiencing malnutrition according to the data. Is it 5 to 19%, 20 to 70%, 71 to 90%, or more than 90% of people going through cancer treatment?

**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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Okay, [it] looks like we've gotten a fair number of responses. So, the answer is 20 to 70% of people are experiencing malnutrition. It's a huge range, but you can also see that encompasses a lot of people. The other guesses were pretty close. It was even higher than that. So clearly this is an audience that can appreciate that many people going through treatment are experiencing malnutrition.

## **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%.

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



[Let's define] malnutrition. According to the American Society for Parenteral and Enteral Nutrition (ASPEN), it is a state of nutrition in which a deficiency, excess, or imbalance of energy, protein, or other nutrients causes measurable adverse effects on the body, the body's function, and, actually, clinical outcomes. And again, it's that 20 to 70% of people.

## **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.






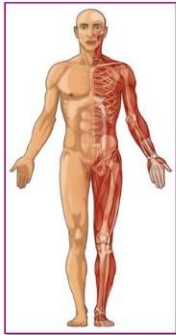
[Malnutrition is] not just looks – you can't just tell by looking at somebody. It can be loss of lean body mass, which may be masked by someone having a little bit more adipose tissue in their body. So, you have to ask some questions, and we're going to get into those in a little bit. Why is loss of lean body mass important? Loss of lean body mass is, again, like the hallmark, it's weight loss. But if there was a way to easily measure lean body mass, we would be measuring that. So why is this happening? There's an inflammatory process in the body brought on by the cancer state. There can be short- and long-term mobilization of fat and lean body tissues. Again, most important there. There's inappropriate and continued mobilization of lean tissue. Something that can be seen in cancer care, which is exciting, is when a patient is responding to their treatment, some of the weight loss, the unintentional weight loss they were experiencing, may kind of taper off. That's always a good sign. I tell my patients that if your kind of weight is plateauing, even if

you're not gaining, maybe we're having a good response from the treatment we're giving you. But in some people, even if they're responding to treatment because of the cancer state in the body, they'll still lose lean tissue. And, again, in a cancer state in the body, you may not have the ability to preserve lean tissue. Again, you'll mobilize the lean body mass. There's a failure to upregulate hunger hormones. So many people will say they're just not hungry and they have a hard time forcing themselves to eat. And where there's primary sarcopenia, just like the muscle and lean body mass loss as we age, this is sometimes called secondary sarcopenia, which is loss of lean body mass brought on by another medical condition.

**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.

So, what is lean body mass we've been talking about — it's organs. So, you can imagine the body using organs for calories would not be ideal. It's the loss of the muscle mass. My patients will tell me they feel like their skin is hanging on a skeleton because they've lost some of their muscle mass. It's even loss of bone. And then our blood cells, those are all lean body mass. So, anything that's not lean body mass is basically just our fatty tissue.

**MALNUTRITION/UNDERNUTRITION HAS MANY FACES**

- Very low BMI is one way to define undernutrition (BMI less than 18.5 kg/m<sup>2</sup>)
- 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

Transcript

Other ways to identify the malnutrition. So, we talked about the definition from ASPEN (American Society for Parenteral and Enteral Nutrition) before, but some other ways you can objectively measure is whether someone has a very low BMI [body mass index]. Is their BMI less than 18.5? Have they had a change in their body weight that meets the criteria of defining malnutrition listed there? Or even if it's not a percentage over a duration of time, some organizations will use a 10% loss in 6 months. And then again, looks can be deceiving. Someone may appear overweight but have lost weight – that meets those criteria – or has been eating less than 50 to 75% of their estimated energy needs for more than one week.

**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





So now that we know why we should care about this, what are some ways we can screen for it? Because identifying someone early means we have an opportunity to intervene before things become severe, hopefully.

**MST—  
MALNUTRITION SCREENING TOOL**


<b>1. Have you lost weight recently without trying?</b>	
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"/>	
<b>2. Have you been eating poorly because of a decreased appetite?</b>	
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!





There are many validated nutrition screening tools. And, in fact, there was just a recent journal article that came out looking at these screening tools as well. So, this one I chose because it's

the simplest; not only can you administer it to the patient or a nurse administer it to the patient, but you can also have the patient administer it to themselves. So, it's a simple questionnaire. Many of you have probably seen this. It's called the malnutrition screening tool. It's two questions asking about whether or not you've experienced weight loss, to what degree or having the weight loss, and then have you been eating less because of a poor appetite or reduced appetite? If you score two or more, that means that person is at risk, and you should actually dig further and ask a few more questions. Maybe have them meet with a registered dietitian if that's available to you.

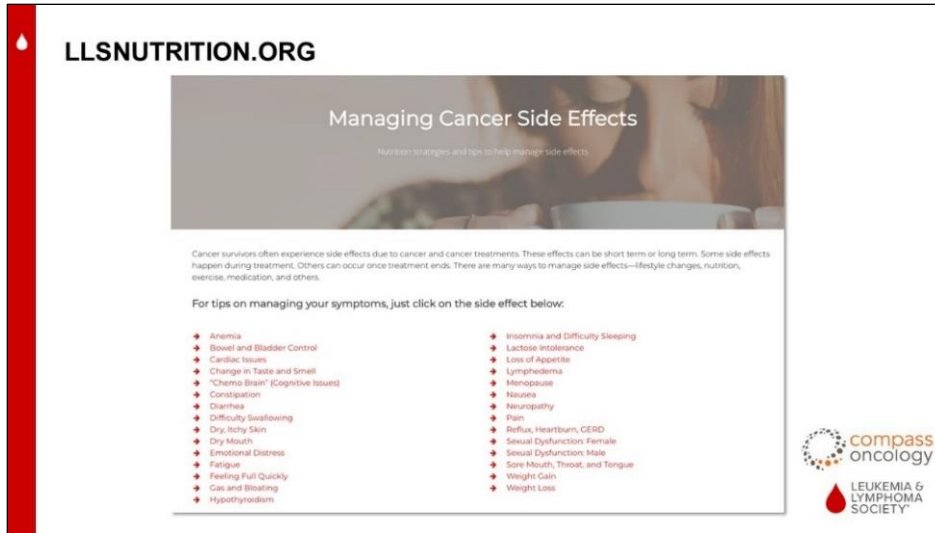
 **NUTRITION INFORMATION RESOURCES—  
WEB-BASED INFORMATION**

- LLS.org/Nutrition
- AICR.org
- Cancer.org
- Cancer.gov
- CancerSupportCommunity.org

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Some different organizations where we'll kind of start — again, it is [an] unmet need of having access to a registered dietitian in the United States. So, we know that not every site has one. I'm a medical oncology PA [physician assistant] at my practice and I provide nutrition, but we have [an] unmet need. The Leukemia & Lymphoma Society, we're going to get in this a little bit later, has access to a dietitian, so we're kind of featuring their site. The American Institute for Cancer Research, they have excellent nutrition information, [as well as] [www.cancer.org](http://www.cancer.org), [www.cancer.gov](http://www.cancer.gov), and the Cancer Support Community. If you don't have access to your own dietitian, what can you as a provider do to help get information for yourself and direct patients to reputable websites and organizations? So that's kind of the goal here, giving you some on-the-ground skills for these patients.



**LLSNUTRITION.ORG**

### Managing Cancer Side Effects

Make changes and tips to help manage side effects

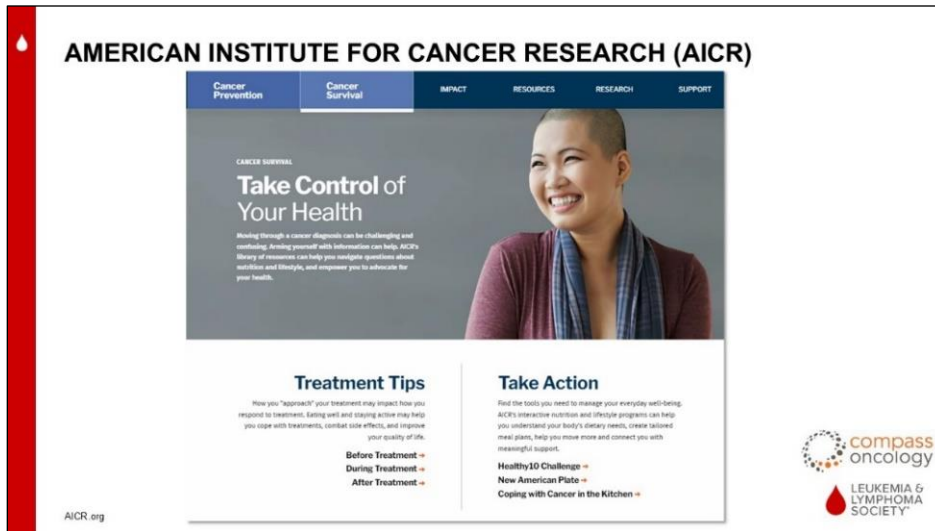
Cancer survivors often experience side effects due to cancer and cancer treatments. These effects can be short term or long term. Some side effects happen during treatment. Others can occur once treatment ends. There are many ways to manage side effects—lifestyle changes, nutrition, exercise, medication,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

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Looking at The Leukemia & Lymphoma Society website, many of these sites are going to be similar. They'll have sections about how you address a side effect or a symptom that the patient is having. You can print out the information or you can just direct them [and] give them the web links themselves.



**AMERICAN INSTITUTE FOR CANCER RESEARCH (AICR)**

Cancer Prevention | **Cancer Survival** | IMPACT | RESOURCES | RESEARCH | SUPPORT

### Take Control of Your Health

MOVING THROUGH A CANCER DIAGNOSIS can be challenging and stressful. Arming yourself with information can help. AICR's library of resources can help you navigate questions about medicine 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 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 therapy programs can help you understand your body's dietary needs, create tailored meal plans, help you move more and connect you with meaningful support.

- Healthy30 Challenge ➤
- New American Plate ➤
- Coping with Cancer in the Kitchen ➤

AICR.org  
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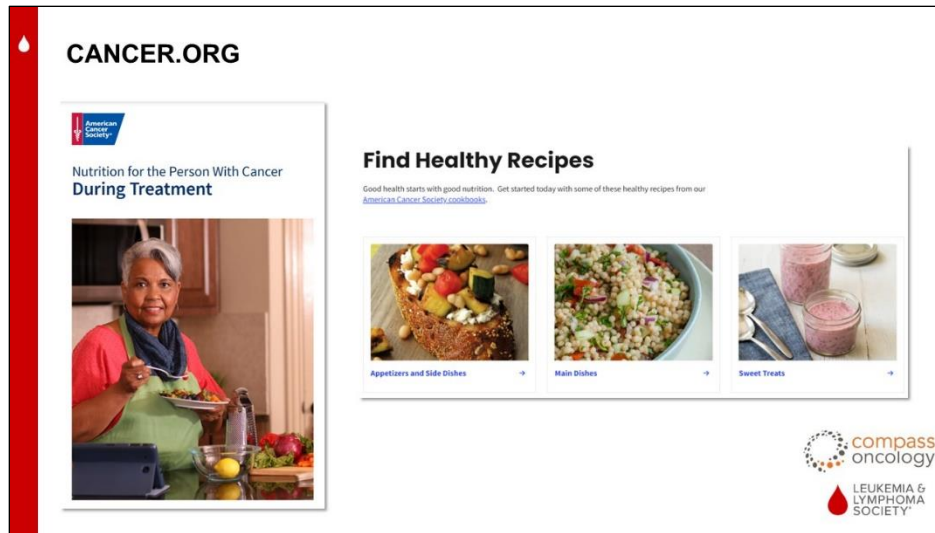
This is the American Institute for Cancer Research. Again, you can look at [the] before, during, and after treatment. Click on those, and they have wonderful information for patients.

The screenshot shows the AICR.ORG website. On the left, under the heading "Dealing With Treatment Side Effects", there is a list of side effects with expandable options: Fatigue, Loss of Appetite, Weight Loss, and Undernutrition, Weight Gain, Fluid Retention, Nausea, Vomiting, and Diarrhea. To the right is a banner for "Foods That Fight Cancer" featuring an apple and grapes. The banner text states: "No single food can protect you against cancer by itself. But research shows that a diet filled with a variety of vegetables, fruits, whole grains, beans and other plant foods helps lower risk for many cancers." Below the banner are two buttons: "FOOD FACTS" and "SUBMIT RECIPES". In the bottom right corner, there is a logo for "compass oncology" and the "LEUKEMIA & LYMPHOMA SOCIETY" logo.

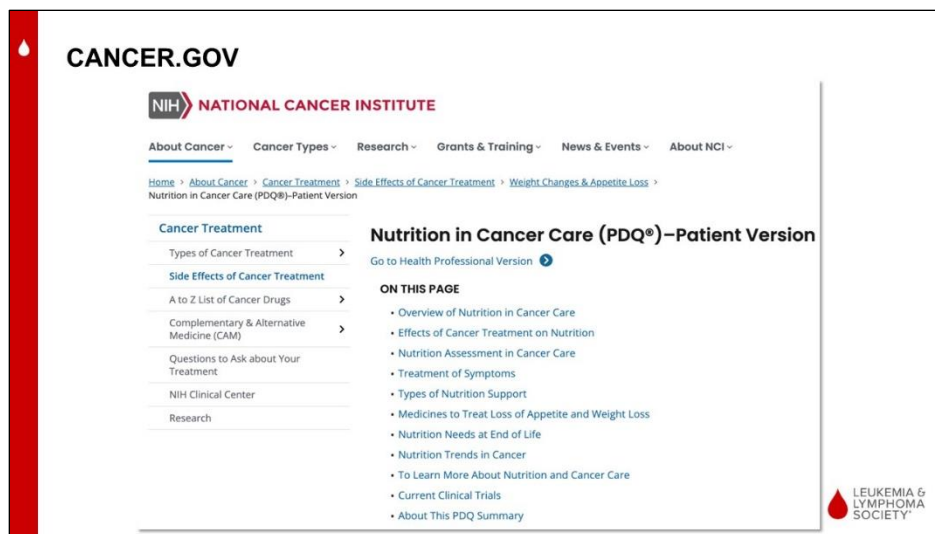
Here's where they talk about some of the side effects of treatment. Click on that. The page opens, and again, you can direct the patient there or print it out for them. They also have a cool section that's called, "Foods that Fight Cancer." And you can look up specific foods and the nutrients that they provide to a patient and how they have anti-cancer benefits.

The screenshot shows the CANCER.ORG website. At the top, it says "CANCER.ORG" and "American Cancer Society". Below that is a breadcrumb trail: "All About Cancer > Survivorship: During and After Treatment > Coping and Living Well During Cancer Treatment >". The main heading is "Nutrition for People With Cancer". There are two main sections: "Nutrition During Cancer Treatment" and "More information". The "Nutrition During Cancer Treatment" section includes a sub-heading "Learn about nutrition needs during treatment and how to manage treatment side effects that could affect how well you eat." and a list of links: "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", and "Managing Eating Problems Caused by Cancer Treatments". The "More information" section includes the text "Get more nutrition information from the American Cancer Society." and a list of links: "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", and "Diet, Physical Activity, and Healthy Living". A yellow arrow points to the PDF link. In the bottom right corner, there is a logo for "compass oncology" and the "LEUKEMIA & LYMPHOMA SOCIETY" logo.

American Cancer Society has, again, the kind of web pages with tips during treatment. They also have – what's highlighted with the arrow – a PDF that you can print out for the patients or send in a web link that is a comprehensive booklet to use during their cancer journey.



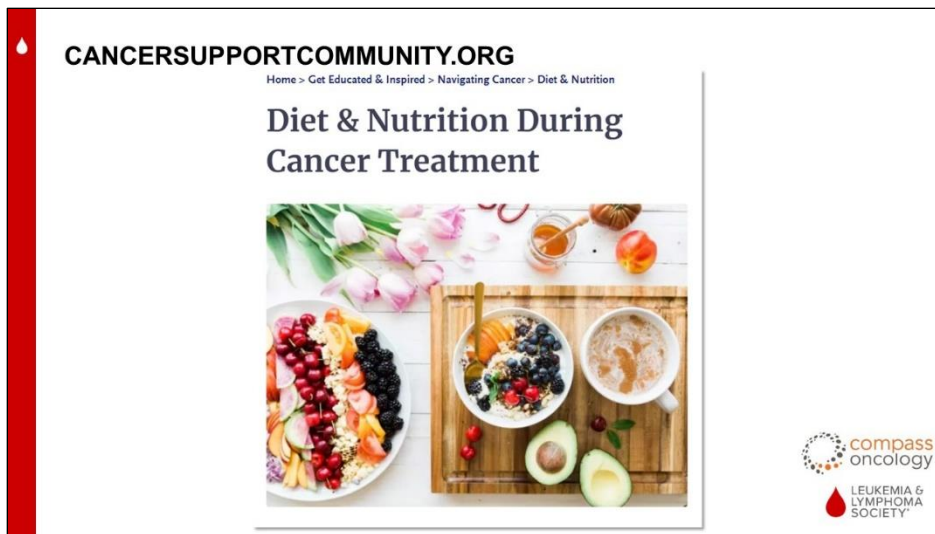
That's what that booklet looks like on the left there with the woman standing having a salad. And then they have a healthy recipe database.



Cancer.gov, or the NIH – similar. You can look up different resources on nutrition during [patients'] treatment and why nutrition is important during [their] cancer care.



They have another really nice PDF that you can print out in color if you have access to that or, again, just send the web link to your patient.



And then [www.cancersupportcommunity.org](http://www.cancersupportcommunity.org) is a nationwide organization that also has some nice resources, patient-oriented resources, and information for you as a provider.

**CANCERSUPPORTCOMMUNITY.ORG**

**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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They have a recipe gallery. They also have some video series, so you can watch and learn from these yourself or you can send them to your patient. Now I'm going to turn it over to Heather.

**PATIENT & CAREGIVER RESOURCES—  
FOR NUTRITION SCREENING & ASSESSMENT**

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

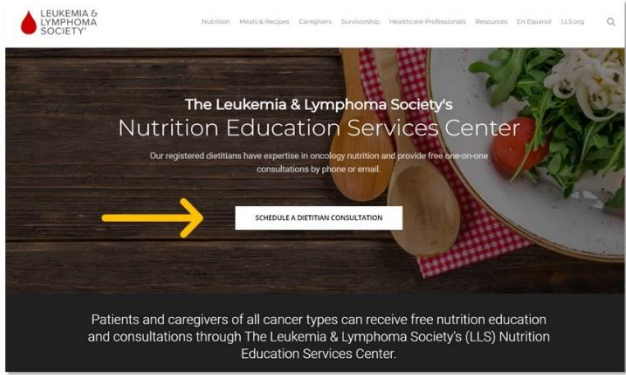


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### Heather Knutson, MS, RD, CSO, LD

Thank you, Alison. And, as Alison talked about challenges in finding access to registered dietitians, we are going to start the next section with that. So, when you have identified patients at increased risk for malnutrition or have patients that need nutrition education or have nutrition questions, here are some resources for you to connect with a registered dietitian. Registered dietitians are the nutrition experts and, if you are lucky enough to have a registered dietitian at your facility, they are a great resource to begin with.

**NUTRITION EDUCATION SERVICES CENTER, LLS**  
[www.LLSnutrition.org](http://www.LLSnutrition.org)

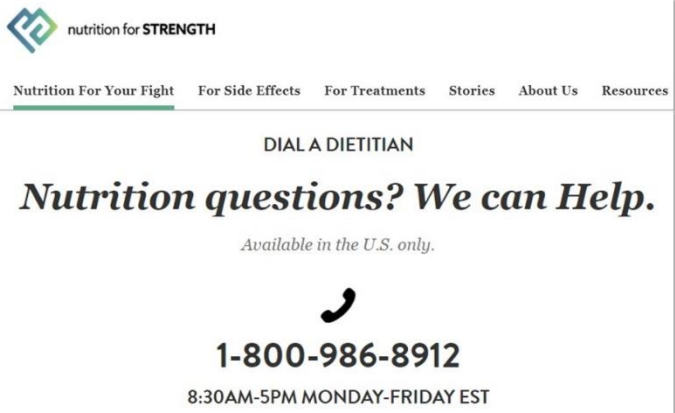


- Free
- All cancer types
- Patients & caregivers

And so, going through these resources, the first one is the Nutrition Education Services Center at The Leukemia & Lymphoma Society. Here they offer free, one-time, 30-minute nutrition phone consults with a registered dietitian available to patients and caregivers. And these nutrition consults are available for all cancer types. Consults can be self-scheduled on this website. And nutrition healthcare providers can directly refer patients through this website as well.

Dietitians here provide nutrition education, answer nutrition questions, provide resources, and make recommendations as needed for follow-up or ongoing nutrition care.

**DIAL A DIETITIAN**  
[www.nutritionforstrength.com](http://www.nutritionforstrength.com)



- Free
- All cancer types
- Patients & caregivers

And the next resource here is Dial a Dietitian. And this is a free, one-time visit for all cancer types, sponsored by Abbott Nutrition. These calls are available to patients and caregivers on the phone number listed here.

**CANCER NUTRITION CARE**  
[www.cancernutritioncare.com](http://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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And another resource is Cancer Nutrition Care. They offer no-charge, 10-minute screenings. Oncology dietitian consults here are available for, I think, \$150 or you can purchase a package. This service can provide continued follow-up care as well. Consults are billed following visits and may be submitted to insurance by the patient. And they also offer culinary coaching, which a lot of patients can benefit from as well.

**ACADEMY OF NUTRITION & DIETETICS: FIND A NUTRITION EXPERT**  
[www.eatright.org/find-a-nutrition-expert](http://www.eatright.org/find-a-nutrition-expert)

eatright.org Academy of Nutrition and Dietetics About RDNs and NDTRs Become an RDN [Find a Nutrition Expert](#)

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Search our database of credentialed nutrition and dietetics practitioners by location, specialty, language or insurance and payment options.

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I've read and agree with the [Terms and Conditions](#)

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

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And on the Academy of Nutrition and Dietetics website, you can search for a dietitian by the oncology specialty. The cost will vary by practitioner. Some may bill insurance directly, and patients may be able to submit to insurance after the appointment. The dietitians here may be available for long-term follow-up as well.

**CULTURED HEALTH**  
[www.iamculturedhealth.com](http://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!

Download on the App Store | GET IT ON Google Play

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

LEUKEMIA & LYMPHOMA SOCIETY

Cultured Health matches and connects users with culturally aligned registered dietitians who may have shared experiences and speak their language. This resource does require using an app. Dietitians listed on this platform are independent, do charge for their services, and may bill insurance.

**RESOURCES FOR NUTRITION SERVICES  
IN YOUR ORGANIZATION OR COMMUNITY**

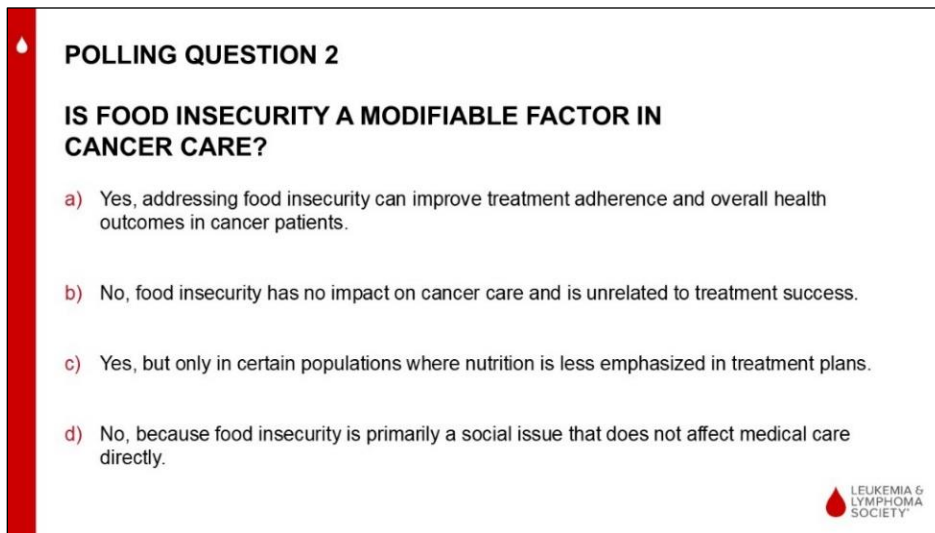
- Call or email your local dietitian
- Consult with your social workers for local and other resources

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It is also helpful to add any local resources to your list of options for patients. You can start by connecting with the dietitian in your oncology department, organization, or a dietitian in your community for recommendations. Your social worker is also a great resource to refer to. Some areas may have other entities such as food banks or other nonprofit organizations that contain a nutrition component that may offer dietitian services as well.



And let's transition by looking at food insecurity and how it may impact those living with cancer.



**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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LYMPHOMA  
SOCIETY

So, starting off with a question: is the 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. Or D, no, because food insecurity is primarily a social issue that does not affect medical care directly.

**POLLING QUESTION 2**


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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.



Awesome. You guys are queuing into this. [I think] most people have answered A, which is the correct answer here.

**DEFINING FOOD INSECURITY**

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




Multiple Triggers (SDOH)

Temporary or Chronic

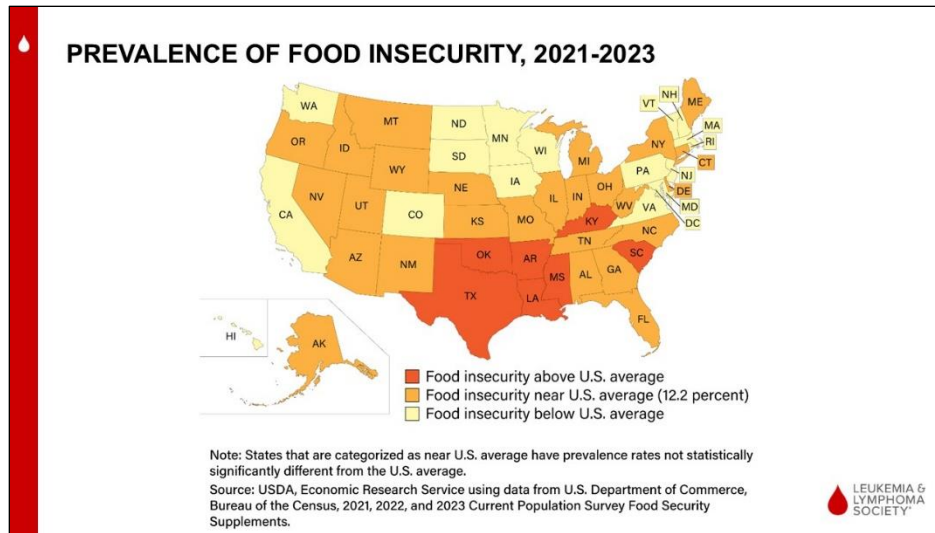
Affects Quality and Quantity of Food

U.S. Department of Agriculture



And so, what do we mean when we say food insecurity? The term "food insecurity" has replaced the term "hunger" and can be defined by the USDA [United States Department of Agriculture] as a household-level economic or social condition of limited or uncertain access to adequate food for an active, healthy lifestyle. Or, simply put, not having enough food available. Food insecurity can be triggered by many factors or social determinants of health, such as employment, low wages, lack of housing, social isolation, health challenges, and increasingly high medical costs. Food insecurity can be a short-term or long-term challenge. And food insecurity not only impacts the quantity of food available, but also the quality of food, which is known as "nutrition insecurity." And today we are solely going to focus on food quantity.





This map, compiled from the USDA surveys, shows the average prevalence of food insecurity across the [United States] between 2021 to 2023, and the darker red color indicates above-average food insecurity. The orange color indicates average prevalence of food insecurity, and the lighter yellow indicates those states that are experiencing below-average rates of food insecurity.

**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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It brings us to another question. Cancer survivors who experience food insecurity are more likely to experience: A, desired weight loss; B, depression; C, community support; or D, ease in access to resources.

**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



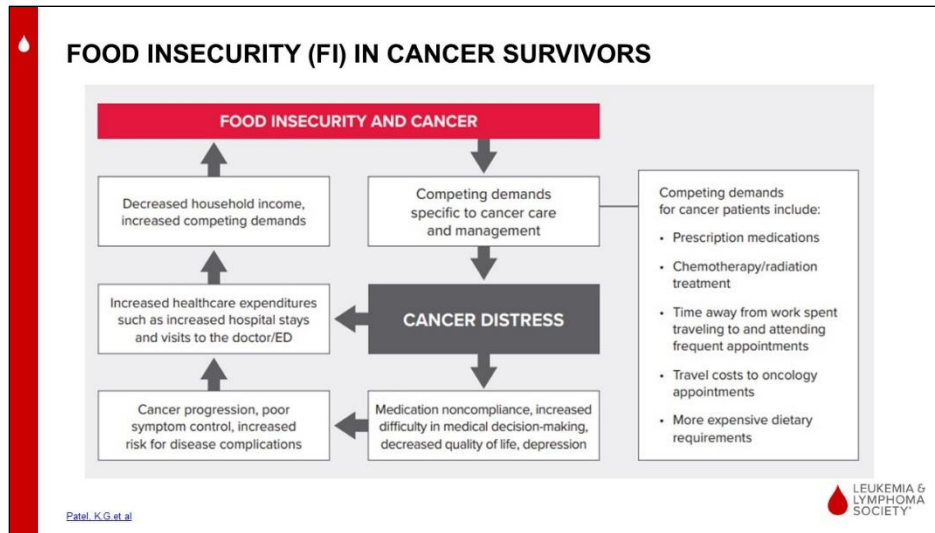
Awesome. Yes. Depression. I think everybody did select B. So, take a moment to reflect on how food insecurity might impact your practice. Imagine that, out of the last 10 patients you saw, more than 3 of them did not have access to food or access to enough food. And this is the reality in the United States right now. So, think about how this might impact their cancer treatment and how they might feel.

**FOOD INSECURITY (FI) IN CANCER SURVIVORS**

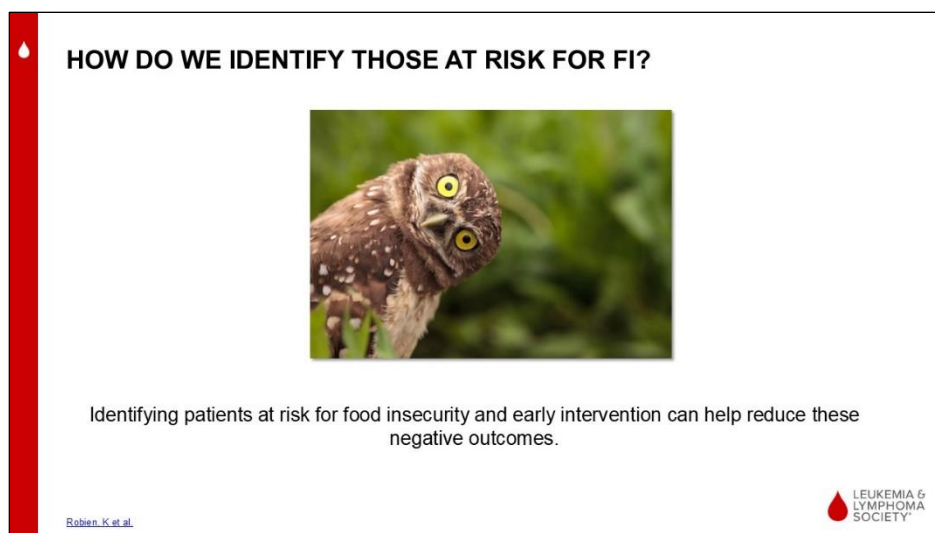
- 32% of cancer survivors vs 10.5% of all households reported food insecurity in 2018-2021 ([Charkhchi et al](#) & [USDA](#))
- Malnutrition can be a by-product of FI, especially when available food may carry lower nutrient quality = nutrition insecurity
- Cancer survivors with FI experience:
  - ↓ QOL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



And so, we'll look next here at the prevalence of food insecurity in cancer survivors and what potential consequences might be. So, between the years of 2018 to 2021, 32% of cancer survivors compared to what was 10.5% of all households in the United States, at that time, reported food insecurity. And based on the increased growth of food insecurity since 2021, I would anticipate that this number is likely greater than 32%. Compared to those who have adequate access to food, cancer survivors with food insecurity are more likely to experience malnutrition and nutrition insecurity, or also [more likely to not have] access to enough nutritious food. Food-insecure cancer survivors are also more likely to experience decreased quality of life and health outcomes, including additional symptoms such as fatigue, pain, sleep issues, as well as reduced medication adherence.




And so, this slide is a little bit busy, but it provides a really nice visualization of how food insecurity may impact outcomes in cancer survivors and really can be a cyclical challenge. Maintaining adequate nutrition is critical to cancer therapy success. Food insecurity during and after cancer treatment may undermine therapy goals and treatment successes. It may also add a layer of difficulty to managing the side effects of cancer treatments. Cancer distress can affect every aspect of a person's life. As expenses and stress increase, there can be a decrease in income, medical adherence, decision-making, and quality of life, and an increase in depression. This can trigger a significant decline in health and increase undesirable outcomes. As the demands increase for medical appointments, more expensive medications and oftentimes special diets, cancer distress may increase and further complicate their situation. So, all of these factors result in less available resources and abilities to access and prepare nutritious foods.



So how do we know who is at risk for food insecurity so we can offer solutions and reduce possible negative outcomes.


**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, F. R. et al.

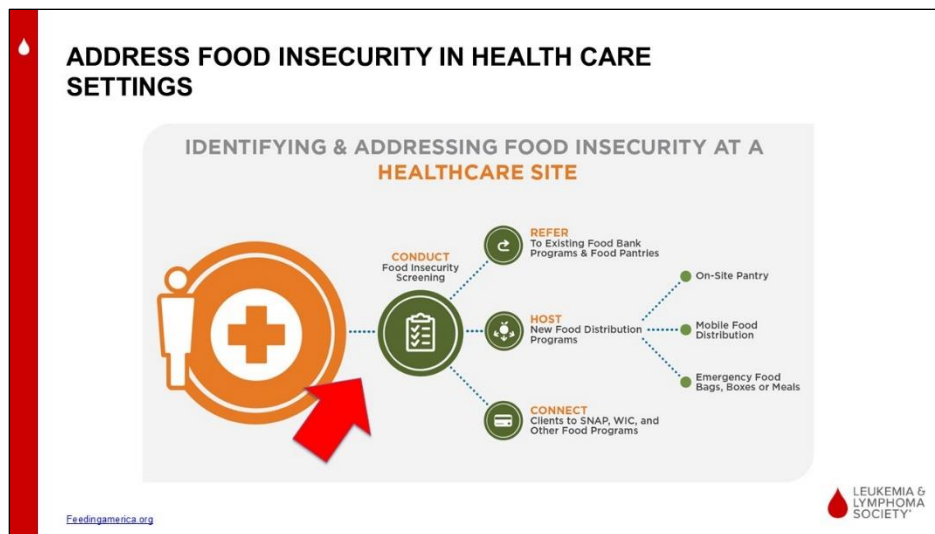


One way to screen for food insecurity is by using the Hunger Vital Sign™ tool. There are other tools available as well. I chose to focus on this tool as it is validated for use in both children and adults, and it's quick and easy to administer with two questions. One limitation of this tool, and other similar shorter tools, is that they do not identify who is at risk for the most severe levels of food insecurity. This tool asks the patient or guardian, within the past 12 months, were they worried food would run out before they had the money to purchase more food? And within the past 12 months, did the food that they bought not last, and did they not have the money to purchase more? Choosing "often true" or "sometimes true" to at least one of these statements indicates that they're at risk for food insecurity. This tool can be included in the electronic medical record. You can send it to patients electronically, place it on a clipboard in the exam room, or verbally ask these questions at office visits. It's endorsed by several major medical organizations and is reliable and sensitive at the 97th percentile and free for you to use.

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

So, what can we do to support patients who are at risk for food insecurity?



This flow chart shows how healthcare providers at a multidisciplinary level can make a difference. Starting on the left-hand side here, by the red arrow, we begin by screening for food insecurity. For those who screen positive, there are a variety of ways we can provide interventions depending on what you might have available to you or what your organization has the capacity and desire to offer. After screening positive for food insecurity, you can refer patients to available food programs in your area such as food banks and food pantries. There are several organizations and cancer centers who host food distribution programs for their patients such as an onsite or mobile food pantry, or emergency food boxes or meals. You can also connect patients with educational resources that we will talk through, or other programs that they might be eligible for such as SNAP (Supplemental Nutrition Assistance Program) or WIC (Women, Infants, and Children). Food insecurity is a modifiable risk factor in cancer care, and [it] is important to screen for at regular intervals that your facility determines as peoples' situations can change.

### LLS FOOD INSECURITY RESOURCES

#### PATIENTS

[www.LLS.org/booklets](http://www.LLS.org/booklets)

**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:

- 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.

**SEASONAL PRODUCE GUIDE**

**Spring:** Asparagus, Artichokes, Broccoli, Green Beans, Mangoes, Melon, Peas, Radishes, Rhubarb, Spinach, Strawberries, Swiss Chard

**Summer:** Avocados, Bell Peppers, Berries, Carrots, Cauliflower, Cherries, Corn, Cucumbers, Eggplant, Green Beans, Horseradish, Melons, Peas, Okra, Peaches, Plums, Summer Squash, Tomatoes, Watermelon

#### HEALTHCARE PROFESSIONALS

Food Insecurity Fact Sheet

[www.LLS.org/HCPbooklets](http://www.LLS.org/HCPbooklets)

**Food Insecurity**

Food insecurity is a household-level economic and social condition of limited or no access to adequate food. (U.S. Department of Agriculture (USDA). Food insecurity can be defined as any household that has one or more people who are often or always hungry or who often or always lack the money and other resources for food. According to the USDA, U.S. households were food insecure at some time during the year 2018.

Food insecurity can affect patients' abilities to manage their illness and properly care for themselves, and is associated with an increased risk of poor health. It also contributes to higher health care costs for individuals and the overall health system. Patients with food insecurity are often faced with difficult decisions about whether to eat when their resources should be allocated and more often face more stress between food and necessary medical care.

**Healthcare providers play an important role in identifying patients with food insecurity and addressing the needs of these patients. Identifying and addressing food insecurity requires an individual, family, and community effort. It is important for clinicians to identify patients at risk for food insecurity and refer them to providers as well as other organizations that can support the specific needs of the patient and family.**

**Causes of Food Insecurity**

**Income/Employment**  
Income, employment status or type of employment affect income or lack thereof may be a barrier to other expenses such as medical care, housing or utilities before being used to purchase food. Working long or non-traditional hours can also make it difficult for people to find time to buy and prepare food.

**Race/Ethnicity**  
Black and other Hispanic people have been found to have a higher risk of food insecurity.

**Disability**  
People with disabilities may be at a higher risk for food insecurity due to financial challenges such as limited employment opportunities and additional costs.

**Housing/Transportation**  
When people have and their transportation options can also affect their access to food.

**Neighborhood/Transportation**  
When people have and their transportation options can also affect their access to food.

**Food Insecurity and Health**  
Increased risk of negative health outcomes and health disparities.

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LLS offers food insecurity publications for both patients and healthcare professionals. The patient publication on the left includes strategies, tips, programs, and resources. And the professional

publication includes resources for food insecurity, identifying those at risk, and for providing interventions. And these are available to order free of charge at the websites listed.

**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](http://www.nutrition.gov/topics/food-security-and-access/food-assistance-programs)
- Military & Veteran Families: [www.bluestarfam.org/food-insecurity-resources/](http://www.bluestarfam.org/food-insecurity-resources/)
- Local Food Resources: [www.freefood.org/](http://www.freefood.org/)
- Local Resources (food, housing, transportation & more in multiple languages):  
[www.findhelp.org](http://www.findhelp.org)




If your organization does not have a list of resources available for patients to access food available in your area, I would encourage you to be the champion to initiate the creation of one. And here are some resources to provide or explore with patients.

**FOOD INSECURITY RESOURCES FOR PATIENTS**

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




And additional resources for patients. These slides will be available at our website [www.LLS.org](http://www.LLS.org) at some point following this event for you to have a copy of these. And I would encourage you to explore each of these resources so you can actively use them to help support your patients.



**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](https://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](https://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](https://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](https://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](https://lls.org/professional-education-webcasts/food-address-outcomes-strategies-support-patients-cancer-facing)



And [these are] resources specifically for healthcare professionals, including additional educational resources. I will hand it back to Alison for our first case study.



**CASE STUDIES**



**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


**Alison Ryan, PA-C, MS, RD, CSO**

Great. Okay, let's implement some of that information we just learned. So, we have our lady here, DH. She's a 63-year-old female, referred to oncologist from the PCP because they found that she had some abnormal labs on her annual physical exam. Her past medical history includes high blood pressure. Her symptoms are, she's been feeling some fatigue. She gets full pretty easily or is having early satiety, not finishing her meals, and she's actually lost about 14 pounds in the last two months. The labs show that her white blood cell count is up, specifically her absolute lymphocyte count. Her hemoglobin is down, her platelets are down, and her LDH is up. So, in case any of you sleuthy clinicians out there, this woman probably has CLL. Her treatments that she's on, she's on lisinopril for her high blood pressure. You do a physical exam, [and] you see that she has mild temporal wasting. Her spleen is quite enlarged. You can feel it at four centimeters below the costal margin.

**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!

<b>1. Have you lost weight recently without trying?</b>	
No	0
Unsure	2
If Yes, how much weight (kg) have you lost?	
1 – 5	1
6 – 10	2 <span style="color: red;">←</span>
11 – 15	3
> 15	4
Unsure	2
Weight Loss Score: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">2</span>	
<b>2. Have you been eating poorly because of a decreased appetite?</b>	
No	0
Yes	1 <span style="color: red;">←</span>
Appetite Score: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">1</span>	
<b>Total MST Score (weight loss + appetite scores)</b> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">3</span>	






So, let's screen her for malnutrition. She's someone we're concerned about. And so, we want to find out should we refer this patient to nutritional services. So, you pull out your MST [malnutrition screening tool] and you ask her, have you lost weight recently without trying? She says, "Yes."

So, you look and you see that that's a score of, well, for kilograms it's 6.4 kilograms, so you will have to convert the 14-pound weight loss to kilograms. So, she's lost 6.4 kilograms with a score of 2. So, you put that in the little box to the right. Then you ask her if she's been eating poorly because of a decreased appetite and she verifies, "Yes," she's been feeling full quickly. So, you add there's a 2 there, there's a 1 there. Our total score is 3. And as we mentioned earlier, 2 or more should be kind of investigated further.

**Visit [www.LLSnutrition.org](http://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




So, you don't have access to a dietitian immediately, but you know what you can do. You're going to start giving this patient resources. Maybe you run over to the computer and you look it up, too, because you haven't talked about this with a patient in a while. You're going to try to get some information before you talk with her as well. You'll go to The Leukemia & Lymphoma Society website, and you might look at the list of some of these symptoms and see what she has been experiencing. And you would [determine what you] could click on there to learn more and to educate her on, [and] maybe print out some things for her.

**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




So, let's ask a question about this. Based on the symptoms she was telling us, what would you address first with this patient and maybe things you wouldn't necessarily address during that visit. So, think about what you would address. Is it A, feeling full quickly; B, diarrhea; C, loss of appetite; D, weight loss; or is it E, which is A, C, and D, feeling full quickly, [loss of appetite], and weight loss.

**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**



So, let's see the surveys coming in since we have a crowd that's paying such close attention, almost everyone got that it's E. You could look up anywhere from A, C, and D for her.

**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.

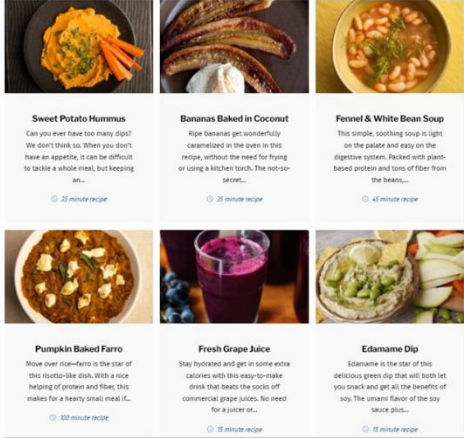



So going back to that webpage, this is printing out nutrition for loss of appetite. And you'll see some of the recommendations, like eat small frequent meals, and they give some suggestions about that. Or – let's make this bigger for my eyes. Use smoothies and shakes. So, use some high-calorie beverages to help her meet her nutritional needs, add more fats to foods to increase the calories, and separate fluids from mealtimes, that way she's not getting full on a liquid, and

she can eat more solid food. And that's just one example. There were several more pages you could look through to find information for her.

**CASE STUDY #1**


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



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You also know she likes to cook, although she's been uninspired lately. So maybe you go to the American Institute for Cancer Research website, and you look for some recipes for her or maybe even pull it up in the room and do it with her, find some of the things she likes. You can show her how the recipe site works or maybe even print out some recipes together. You're looking for things for her high-end calories and protein. And I'm going to hand it back to Heather for case number two.

**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



### Heather Knutson, MS, RD, CSO, LD


Thanks Alison. In our second case study, we have a patient that we'll call NC, who is a 52-year-old male that was referred to oncology. He is experiencing extreme fatigue, not able to fulfill his normal work hours. He's providing care for a grandchild and complains of back pain. He was screened for malnutrition and found not to be at risk for malnutrition at this time. His past medical

history is unremarkable. His lab work indicates elevated creatinine, low hemoglobin, and elevated calcium. The only medication he takes is omeprazole. Upon exam, the doctor noted point tenderness on skeletal back exam.

**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.




And one more [polling] question here. 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; or D, refer NC to an oncology dietitian for oncology nutrition education.

**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.




Let's see. So, it looks like most of you answered C, screen NC for food insecurity, which is the correct answer there. Not that any of these answers are bad options, but screening for food insecurity is part of the assessment before we can determine what interventions are appropriate.

**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.




And so, we will screen for food insecurity using the Hunger Vital Sign™ and NC's answers.


**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.





And, based on his results, we determine that NC is at risk for food insecurity.

### 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





And so, how may we respond to this? It is vital to practice empathy. Food insecurity is a really hard thing to experience. It can be very uncomfortable. It can be a very sensitive topic for a lot of people. They might feel emotions such as shame, anxiety, [and] hopelessness. So, empathy is first and foremost. You could ask permission to refer him to a social worker if you have one available to connect him with resources. A dietitian in your facility would be an appropriate referral as well. And they can offer education on topics such as budget-friendly recipes, shopping, how to find in-season produce, and other cooking strategies that might be helpful. You can also share food resources in your area. If your facility has a patient food bank or offers emergency food boxes or meals, that would be an appropriate referral as well. And, unfortunately, NC receives a diagnosis of multiple myeloma.

### CASE STUDY # 2

**Community Resources**  
**EXAMPLE ONLY**

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		<a href="http://www.foodpantries.org">www.foodpantries.org</a> <a href="http://www.whyhunger.org">www.whyhunger.org</a>
Food Give Away Event	Your hospital on Last Friday of each month	555-567-8901	911 1 <sup>st</sup> 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	<a href="http://www.yourcountyservicesdept.org">www.yourcountyservicesdept.org</a>
Pet Food Pantry	Humane Society	555-789-0123	57 Heinz Ave	<a href="http://www.cityhumanesociety.net">www.cityhumanesociety.net</a>


Food Crisis Utilities

2

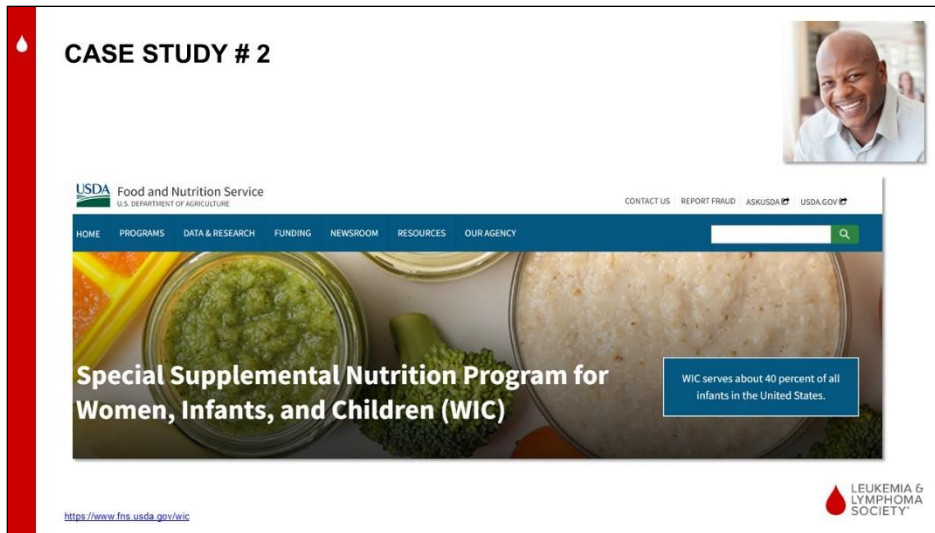
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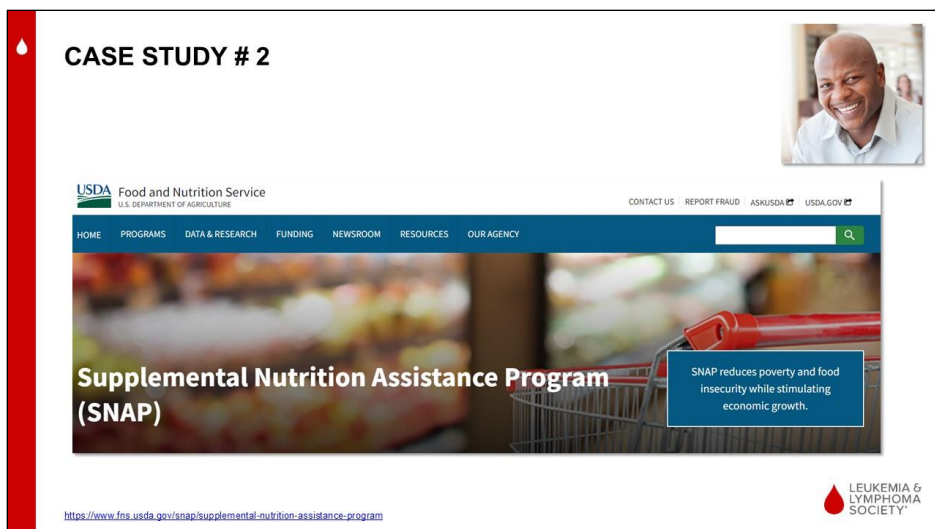




So, you print a list of area resources that might include things like food pantries, grocery programs in your area that you and your colleagues have compiled.





NC, if you recall, has a grandchild that he may be a legal guardian of. So, he could be eligible for WIC, which serves children between the ages of zero to five years.




Due to his reduced hours at work, he may be eligible for SNAP benefits.

**CASE STUDY # 2**





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




You could encourage him to contact his employee assistance program for food benefits, grocery vouchers, or emergency food services.

**CASE STUDY # 2**




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



You may encourage him to contact his health insurance company to ask about possible food benefits, grocery vouchers, or emergency food services.

**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](http://www.LLS.org/PatientSupport)


Scan for more information

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

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You could encourage NC to contact The Leukemia & Lymphoma Society Information Specialists at the phone number listed for resources after his myeloma diagnosis.

**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.foodstays.gov](http://www.foodstays.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. Current 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, Hongkong Melons, Kiwis, Okra, Peaches, Potatoes, Summer Squash, Tomatoes, Watermelon

**Fall:** Apples, Beans, Broccoli, Cauliflower, Carrots, Grapes, Kale, Melons, Pumpkins, Rutabagas, Sweet Potatoes, Turnips, Winter Squash

**Winter:** Beans, Brussels Sprouts, Cauliflower, Kales, Lentils, Lettuce, Oranges, Potatoes, Peas, Potatoes, Pumpkins, Rutabagas, Sweet Potatoes, Winter Squash

To find specific seasonal produce in your area, visit [www.essenceofbody.com](http://www.essenceofbody.com)

[www.LLS.org/booklet/food-assistance-resources-and-tips](http://www.LLS.org/booklet/food-assistance-resources-and-tips)

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And you could provide a handout of tips and resources for food assistance.

## 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



And here's the call to action. So, take some time to think about what role you can play in supporting your patients by identifying and treating those at risk for both malnutrition and food insecurity. Screen your patients for both malnutrition and food insecurity and continue to rescreen as peoples' situations can and do change. Refer your patients at risk for both malnutrition and or food insecurity to a registered dietitian and appropriate food resources in your community and online. And empower your patients to act and engage with the resources you provide them to have the best chance at the best possible outcomes from their cancer treatment.

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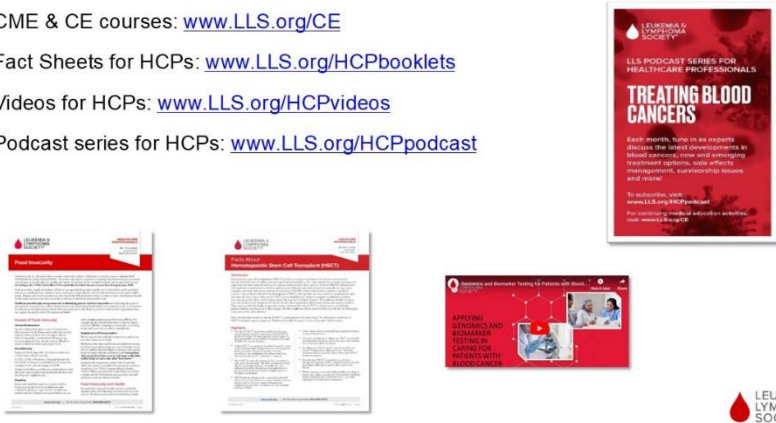
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And here are our references and I will turn it back to you, Margaret.

**FREE LLS RESOURCES FOR HEALTHCARE PROFESSIONALS**

- ❑ CME & CE courses: [www.LLS.org/CE](http://www.LLS.org/CE)
- ❑ Fact Sheets for HCPs: [www.LLS.org/HCPbooklets](http://www.LLS.org/HCPbooklets)
- ❑ Videos for HCPs: [www.LLS.org/HCPvideos](http://www.LLS.org/HCPvideos)
- ❑ Podcast series for HCPs: [www.LLS.org/HCPpodcast](http://www.LLS.org/HCPpodcast)




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**Margaret Martin, RD, MS, LDN, CDCES**

Thank you, Heather and Alison, for your very informative and comprehensive presentation. I'm now pleased to share free resources for you and your patients. We've had several questions in the Q & A about that. You can access LLS's professional education webpage, where LLS offers CE – free CE and CME live and recorded programs, as well as a podcast channel where you can listen to healthcare professionals discussing treating blood cancers, side effect management, and strategies to support your patients. New and interesting topics are added every few weeks. To access these, as well as our videos and fact sheets on treating blood cancer, including the food insecurity fact sheet for HCPs mentioned earlier in the presentation, please visit [www.LLS.org/CE](http://www.LLS.org/CE). For information or to apply for an LLS research grant, Equity in Access research grant, or Unrepresented Minority Medical Student research grant, please use the link on this slide.

**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](http://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](http://www.LLS.org/CTSC)
- ❑ **Reach out Monday–Friday, 9 am to 9 pm ET**
  - Phone: (800) 955-4572
  - Live chat: [www.LLS.org/IRC](http://www.LLS.org/IRC)
  - Email: [www.LLS.org/ContactUs](mailto:www.LLS.org/ContactUs)
  - HCP Patient Referral Form: [www.LLS.org/HCPreferral](http://www.LLS.org/HCPreferral)

The Leukemia & Lymphoma Society Information Specialists are highly trained oncology social workers and nurses who provide accurate, up-to-date treatment and support information, including financial information. Patients can contact them directly or you can complete a referral form using the link here. Information Specialists can also help you access or order multiple free copies of booklets for you and your patients. Our Clinical Trial Support Center Nurse Navigators are registered nurses and nurse practitioners with expertise in blood cancer. They work one-on-one with patients or the healthcare team via telephone to provide user-friendly information to help find appropriate clinical trials, personally assist throughout the clinical trial process, and provide information for the patient to bring back to their healthcare provider. This is a unique service offered free from LLS. The goal is not to enroll every patient into a clinical trial, but rather to provide information, understanding, and options. For information, or to refer and connect a patient with these specialists, use the URLs and phone numbers on the slides. I hope you will consider all of these specialists as an extension of your healthcare team.

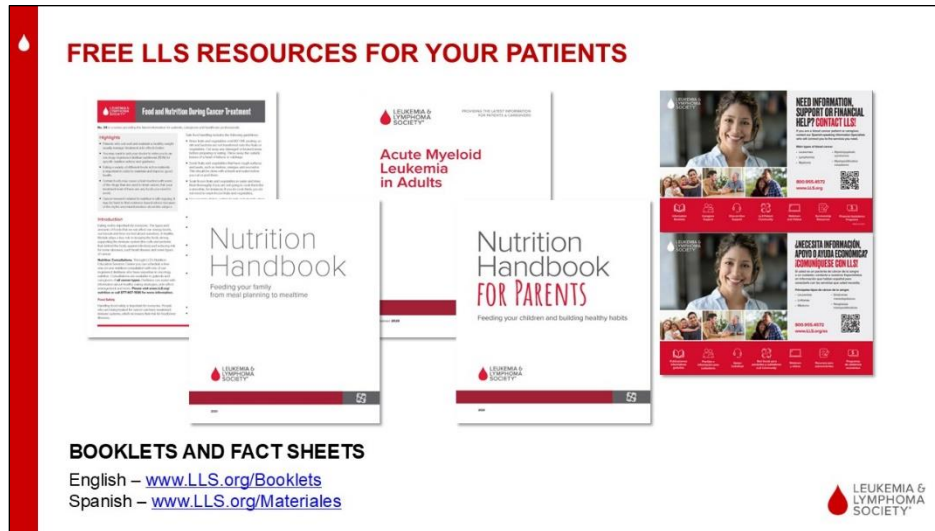
**FREE LLS RESOURCES FOR PATIENTS AND CAREGIVERS**

- ❑ **Webcasts, Videos, Podcasts, booklets:**
  - [www.LLS.org/Webcasts](http://www.LLS.org/Webcasts)
  - [www.LLS.org/EducationVideos](http://www.LLS.org/EducationVideos)
  - [www.LLS.org/Podcast](http://www.LLS.org/Podcast)
  - [www.LLS.org/Booklets](http://www.LLS.org/Booklets)
- ❑ **Support Resources**
  - ❑ **Financial Assistance:** [www.LLS.org/Finances](http://www.LLS.org/Finances)
    - Urgent Need
    - Patient Aid
    - Travel Assistance
  - ❑ **Other Support:** [www.LLS.org/Support](http://www.LLS.org/Support)
    - LLS Regions
    - Online Weekly Chats Facilitated by Oncology SW
    - LLS Community Social Media Platform
    - First Connection Peer to Peer Program

LLS offers blood cancer disease-specific information and support resources for patients and caregivers, including telephone and web assistance programs, videos, podcasts, and booklets.

You may know about LLS's financial assistance programs, and I encourage you to stay up to date on the availability of funds, as well as additional resources.



**FREE LLS RESOURCES FOR YOUR PATIENTS**

Acute Myeloid Leukemia in Adults

Nutrition Handbook

Nutrition Handbook FOR PARENTS

BOOKLETS AND FACT SHEETS  
English – [www.LLS.org/Booklets](http://www.LLS.org/Booklets)  
Spanish – [www.LLS.org/Materiales](http://www.LLS.org/Materiales)

LEUKEMIA & LYMPHOMA SOCIETY

Here are some example booklets you can order from LLS at no charge to give to your patients, or they can access them on the website. If you have questions on any LLS resources, please contact an Information Specialist.



**NUTRITION EDUCATION SERVICES CENTER (NESC)**

The Leukemia & Lymphoma Society's  
Nutrition Education Services Center

Our registered dietitians have expertise in oncology nutrition and provide free one-on-one consultations by phone or email.

One-on-one consultation with a registered dietitian for patients/caregivers of all cancer types  
➤ [www.LLSNutrition.org](http://www.LLSNutrition.org)  
➤ [www.LLS.org/Nutrition](http://www.LLS.org/Nutrition)

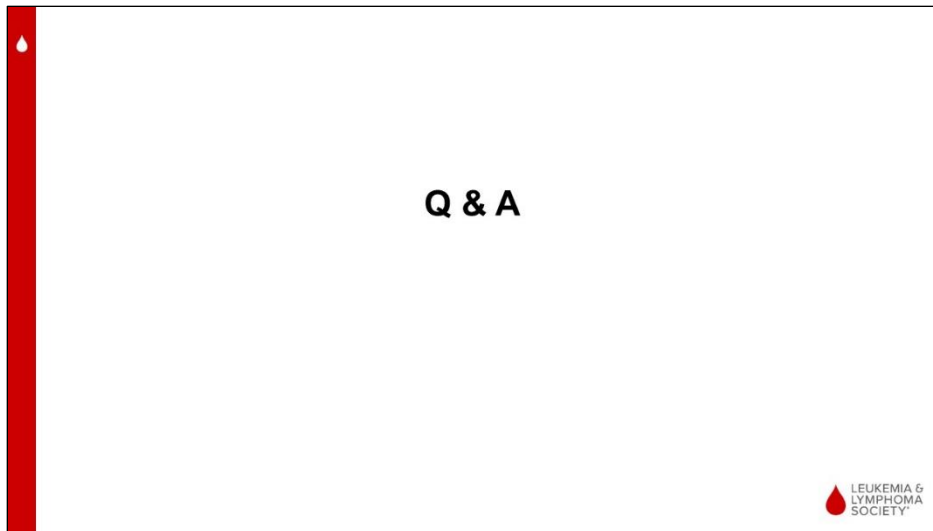
Free Nutrition Booklets

LLS Health Manager™

Nutrition Blogs  
Online Chats  
Podcasts  
Recipes  
Videos

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Our nutrition education services center offers a variety of nutrition education, starting with our website, [www.LLSNutrition.org](http://www.LLSNutrition.org), individual consultations, videos, blogs, online chats, booklets, recipes, and our award-winning app, LLS Health Manager™. You can view or order materials on our website at [www.LLS.org/Publications](http://www.LLS.org/Publications). Some publications are offered in Spanish and in large print. Refer your patients for a free one-on-one nutrition consultation with one of our registered dietitians. Consultations are by phone, available for patients of all cancer types, and are available in many languages using our interpretation service. Refer patients at [www.LLSNutrition.org/Refer](http://www.LLSNutrition.org/Refer).



Now it's time for the question-and-answer portion of our program. Our first question – Heather, you might want to speak to this. Many patients are convinced that sugar makes cancer grow. How do you, as a dietitian, respond to that statement?

**Heather Knutson, MS, RD, CSO, LD**

Yes, we hear that question quite frequently and I think that statement has a lot more nuance than it oftentimes might be taken as. Consuming some sugar does not directly contribute to progression of cancer. A lot of our cells use sugar or glucose for energy, not just cancer cells. And, if we don't consume some carbohydrates, our livers kick in and help to keep us alive by producing glucose. I usually encourage patients, when they're able, to limit added sugar intake and consume mostly healthful foods and sometimes talking through the science of that or providing some good handouts. The Oncology Nutrition Dietetic Practice Group has a really great handout. Dietitians in your facility might also have some great handouts or information to discuss that with patients.

**Alison Ryan, PA-C, MS, RD, CSO**

I would also just add in [that] I try to get patients to focus on more of the things that give them benefit. Instead of doing more of like, what do I need to avoid? What should I be fearful of? I think they can channel their energy a lot more to what should you be eating? How can you get more phytonutrients? How can you eat these healthy things and then naturally added sugars are going to go down. So that's my strategy too.

**Margaret Martin, RD, MS, LDN, CDCES**

Good insights. Thank you. Okay, Alison, one question was: 20 to 70% is such a large range of malnutrition, that seems very hard to decipher. Can you unpack that a little bit?

**Alison Ryan, PA-C, MS, RD, CSO**

Yes, well that probably has to do with, it's like research methods. How are they defining malnutrition can vary amongst the different studies. When a meta-analysis looks at that, they include different ways that it was studied. Also, it'll include different populations of people. Certain disease states we know are higher malnutrition risk. For example, head and neck cancer, pancreatic cancer, lung cancer versus breast and prostate cancer. So just by the nature of their

different diseases, they're going to have higher rates of malnutrition. So that's why such a broad range.

**Margaret Martin, RD, MS, LDN, CDCES**

Thank you. Heather, you might want to speak to our next question. The author writes, I work in a pediatric setting. Providers pretty much tell patients to eat whatever they feel like they can. I feel conflicted when I hear this. It's not a focus on good nutrition or healthy food choices. What would your philosophy be on that? Eat what you could feel like you could eat?

**Heather Knutson, MS, RD, CSO, LD**

Yes, I think different patients are at different points, at different points during treatment, and sometimes if eating is really a struggle, something is always better than eating nothing. But yes, I think your intuition is right, that consuming really health-supporting foods is best when they are able. If you hear patients that are prescribed this information and they are open to learning more, I would attempt to connect them with a registered dietitian. And we, I guess as dietitians, also think about after treatment – it's a really hard transition for patients after treatment when they eat whatever they want through treatment and really struggle with weight and other health challenges after treatment is completed. Yeah, and I'm not sure if you have anything else to add to that, Alison?

**Alison Ryan, PA-C, MS, RD, CSO**

Yes, I think it is a balance because the other thing is, are they having a side effect from treatment that is a barrier? In that case, there are short-term times where it's really just whatever they can get in and trying to – an example of try to use something that may not be healthy, but it's allowing the patient to eat something that is healthier. So, if you need a sugary teriyaki-type sauce on a meat or tofu or something so that they'll get protein, then I would say definitely do that. Or again, you may think, oh, that's too salty, or whatever the case, but if it's allowing for that healthier food or, again, adding fruit and maybe some honey to yogurt because they'll actually eat it versus an unsweetened plain yogurt. So, I think there's a way you can try to make things more palatable for people, even if it's not perfect nutrition.

**Margaret Martin, RD, MS, LDN, CDCES**

Good insight. Thank you. Either of you might want to answer our next question. What is the best way to ask patients about experiencing food insecurity?

**Heather Knutson, MS, RD, CSO, LD**

I think it's important to meet them where they're at, and I would encourage you to consider at your organization to fit it in when you are already maybe asking some of those uncomfortable questions at the beginning of a visit. We ask about things like bowel movements and sexual health and approaching it maybe from a standpoint of we have some questions to ask you that we ask of all of our patients before they see the doctor can be a way to really normalize that question.

**Alison Ryan, PA-C, MS, RD, CSO**

And even not to give people survey type of fatigue, but if it's included in the standard paperwork you give to every patient, they're just filling out one more form. And not that you only do the form, you would still go over it with them and ask them about it, but making it feel like it's just routine part of care and you're not asking them because you're suspicious of the way they look or something.

**Margaret Martin, RD, MS, LDN, CDCES**

The next question I think I can answer. The author asks that you repeat the resources you used in case study number 1. All of our resources and slides will be available as a download after our program. Okay, next question. Please talk a little about malnutrition and obesity.

**Alison Ryan, PA-C, MS, RD, CSO**

Well, I mean, I'll let Heather chime in too, but I think it just goes back to what we're talking about, not judging people on external appearance and asking the questions and digging deeper about what's been happening in their life in regard to eating and nourishment in a whole other range of topics. Not necessarily what we address today, but obesity as far as a preventive strategy is something to take into account. Lifestyle can affect risk for cancer. But again, not necessarily the scope of today's talk, but I'd say not judging someone on their external appearance and just asking the questions to learn if they've been struggling nutritionally, they're still having the same consequences of that loss of lean body mass as a non-obese—appearing person.

**Heather Knutson, MS, RD, CSO, LD**

For malnutrition, we really look at change in body mass and, as we have probably all heard, well-nourished individual weight is simply not an indicator of our lean body mass or adequate food intake or nutrient intake.

**Alison Ryan, PA-C, MS, RD, CSO**

Margaret. Can I make a suggestion based on a lot of the questions we've been getting? Many of you are asking about oral nutrition beverages. And so, in case you don't know about this there – so two things: One, if they can't afford it, period, there are a couple ideas I have. One is you can home-make a lot of stuff, and there are actually good websites where you could look up how do I try to home-make a high-calorie and protein shake or a smoothie. So, it doesn't have to be only those drinks, especially for people that don't like them. Another source is, at least here in the state of Oregon, if a patient has Medicaid, a lot of the times, at least in Oregon, it's covered. You can order oral nutrition supplements, send it to a home healthcare company, and it may be covered by the nutrition portion of their insurance.

Also, you can write a prescription, and you could take it under a doctor's name or ask a provider to write a prescription for oral nutrition supplements. Send it to one of those home healthcare companies and they will often sell to the patients the product at cost. So again, just an example here in my state, a week or two ago, it wasn't covered by their insurance per se, but the out-of-pocket cost was like 81 cents per carton of one of the oral nutrition beverages. So that's another kind of trick that some people don't know about is trying to get an at-cost purchase price for some of those supplements. And then I also heard that Costco now is accepting coupons, so I don't know if that helps. So, it lowers the cost to like \$1.50 or something, at least in our region.

**Margaret Martin, RD, MS, LDN, CDCES**

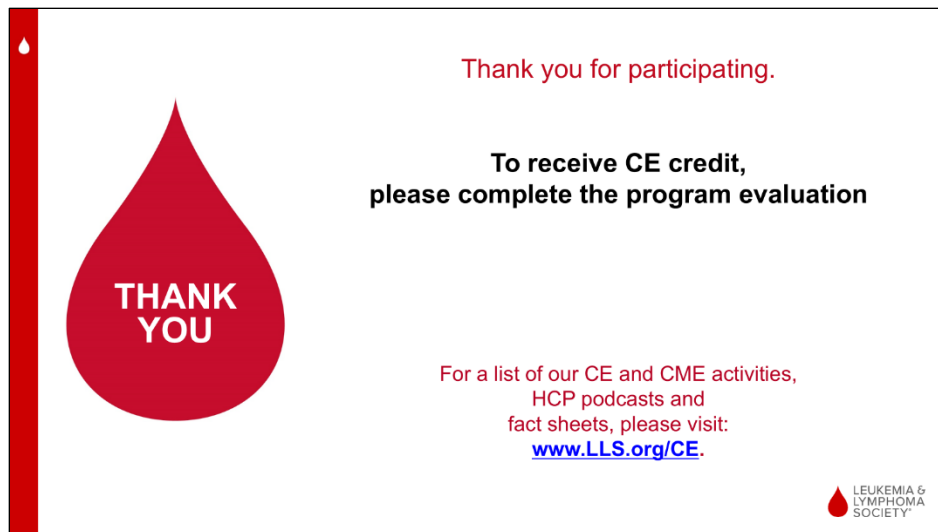
Well, that is good news. Thanks for sharing that. Many of you have asked if the materials that we're spoken about are offered in any other languages. For LLS, our materials are also offered in Spanish, so that's a good thing to know. Any other websites or resources that you might use for non-English speaking publications that you could share? Alison or Heather?

**Alison Ryan, PA-C, MS, RD, CSO**

Ooh, that's a great question. I know when I've looked stuff up for Memorial Sloan Kettering Cancer Center, they – I've seen Spanish, Russian, and Chinese that I can recall just off the top of my head. I'm sure there's more. I don't know. Heather, do you have other ones as well?

**Heather Knutson, MS, RD, CSO, LD**

The USDA comes to my mind. They offer handouts in Spanish and sometimes other languages as well, I believe.



**Margaret Martin, RD, MS, LDN, CDCES**

Okay. All great questions. Well, thank you all for all those questions and thank you to our presenters for their helpful information. We hope that this will be an aid to you in your practice. Thank you, Alison and Heather, for your continued dedication to patients and fellow healthcare professionals. The slides for today's program are available for our download at [www.LLS.org/CE](http://www.LLS.org/CE). To receive CE credit for today's webinar, please complete the program evaluation at the conclusion of this program.