

# Managing Nutrition Issues Through Cancer Treatment

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# Disclosures

I have no financial interests or relationships to disclose.



# Learning Objectives

- Examine the effects of cancer treatment on nutrition status
- Discuss the prevalence of food insecurity among cancer patients
- Review common side effects of cancer therapies
- Discuss nutrition strategies to manage side effects
- Identify pharmacologic agents used to manage symptoms



# Why Care about Malnutrition?

Malnutrition is a well-recognized risk factor for poor treatment tolerance, increased length of stay and increased morbidity and mortality.

- Preserved immune function
- Improved wound healing
- Shorter recovery period compared to undernourished patients
- Increased tolerance to additional therapies/treatments
- Improved quality of life

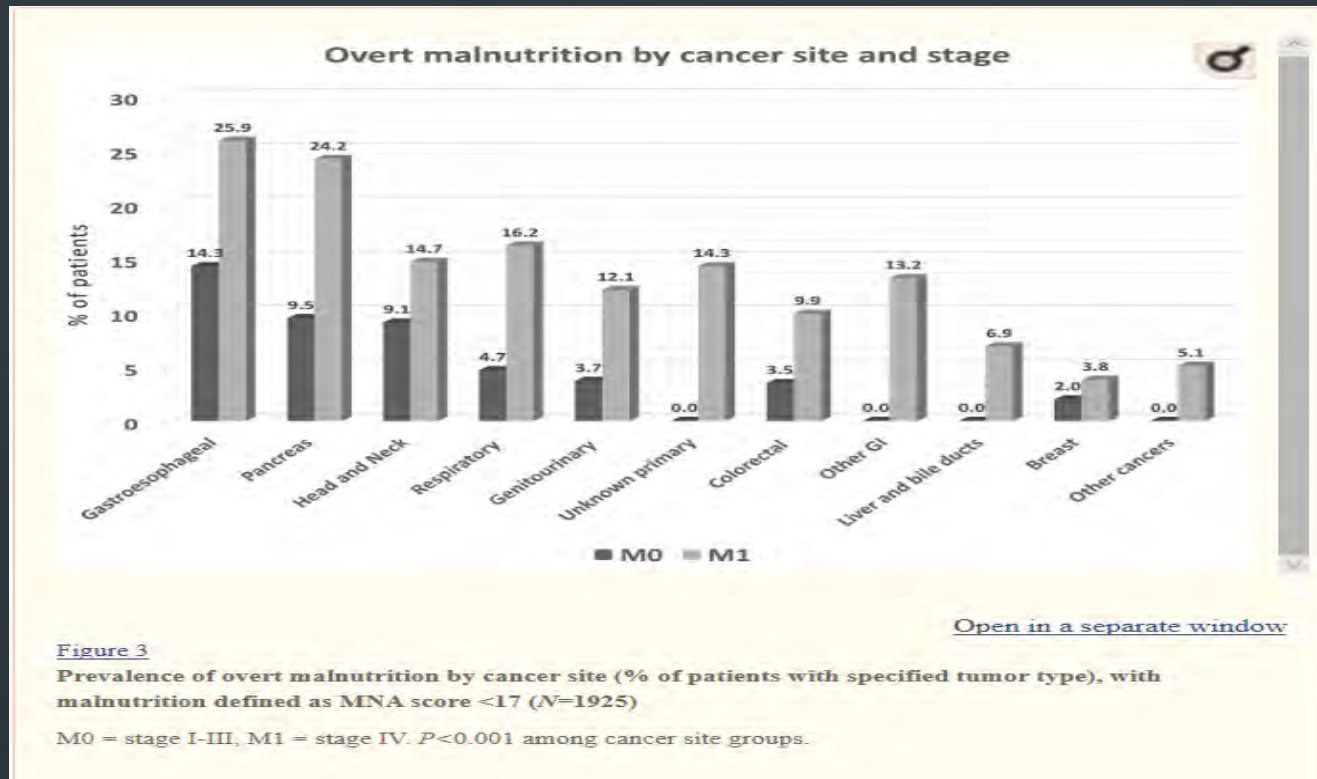


# Malnutrition

- Malnutrition affects up to 80% of individuals undergoing cancer therapy.
- Early detection of malnutrition is important



# Prevalence of Malnutrition in Patients at First Medical Oncology Visit: The Premio Study



# Guidelines for Addressing Malnutrition



## ASPEN

- All preoperative cancer patients should undergo a formal nutrition assessment
- NS should not be *routinely* used in patients undergoing major cancer operations
- Perioperative nutrition support therapy should be reserved for patients who are moderately to severely malnourished and those anticipated to be unable to meet their nutrition needs for at least 7-14 days.

## ERAS Guidelines

- Routine use of preoperative NS is not warranted
- Significantly malnourished patients should be optimized with oral supplements or EN before surgery



# Nutrition Alterations in Cancer





# The prevalence of nutrition impact symptoms and their relationship to quality of life and clinical outcomes in medical oncology patients

## ***Aim:***

Determine the prevalence of nutrition impact symptoms in medical oncology patients at 1, 6 and 12 months after commencement of chemotherapy

## ***Results:***

1 month 79% of patients reported at least one NIS

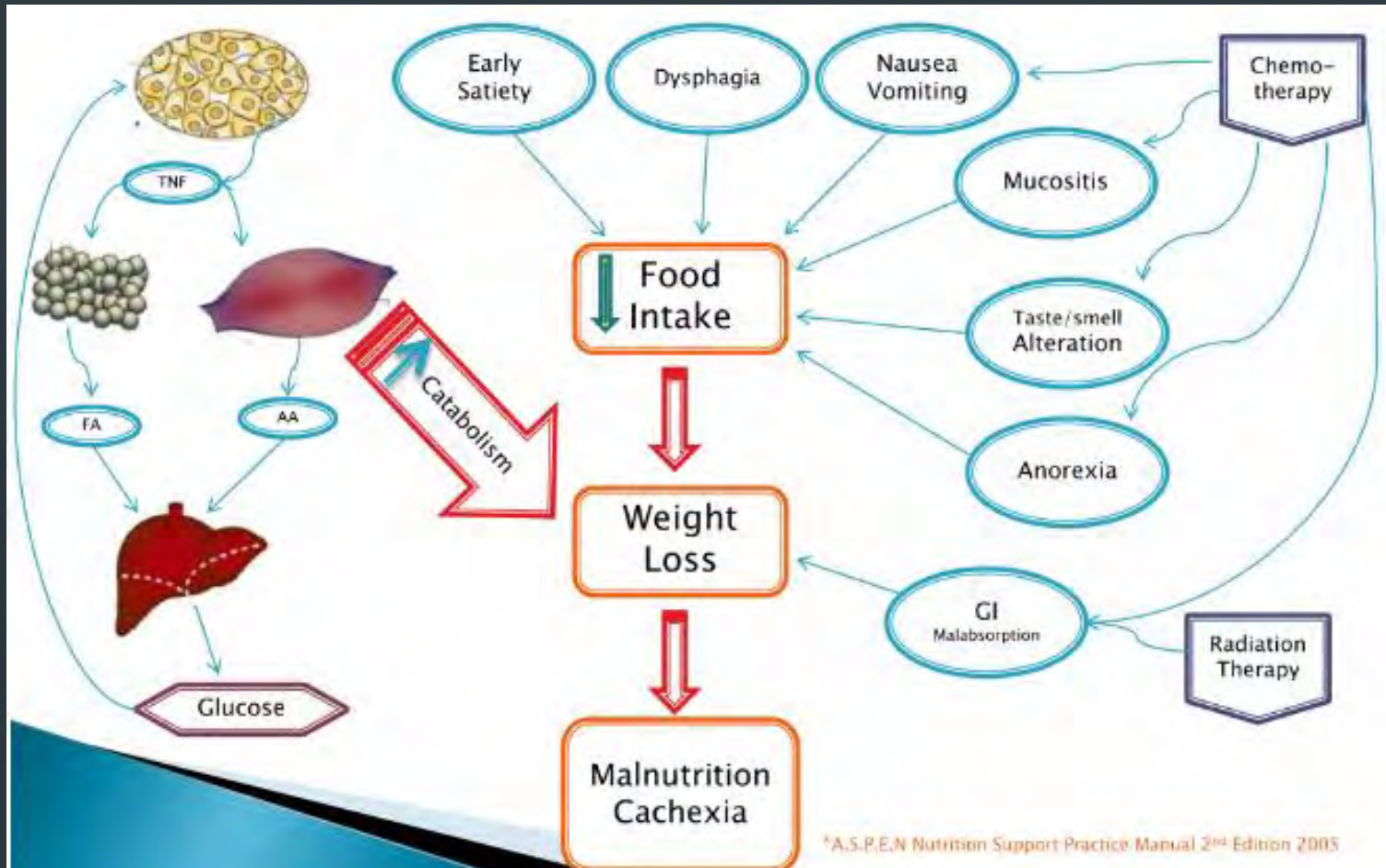
6 months 72%

12 months 46%

Patients associated a higher number of symptoms with lower QOL scores and had lower performance status.



# Nutrition Alterations in Cancer





# Food Insecurity Among People With Cancer: Nutritional Needs as an Essential Component of Cancer Care JNCI 2022

***Food insecurity*** - lack of continuous access through socially acceptable means to nutritious and safe foods in the amounts needed for a healthy and active life.

***Prevalence*** - 17-55% of cancer patients

***Risk Factors*** - female, of Hispanic ethnicity, younger age, unemployed, lower household incomes

***Negative Consequences of FI*** - reduced adherence to therapy, decreased cognitive capacity for complex decision making, lower access to survivorship and self-care resources, linked to mental health issues such as stress, anxiety, depression, and suicidal thoughts

# Food Insecurity Among People With Cancer: Nutritional Needs as an Essential Component of Cancer Care JNCI 2022



**Table 1.** Recommendations for addressing food insecurity in cancer centers based on the National Academies of Sciences, Engineering, and Medicine 5 A's Framework

| Activity   | Food insecurity in cancer care recommendations                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Awareness  | Implement empathic, standardized, nonstigmatizing food insecurity screening throughout the span of cancer care and ensure consistent documentation in health records                                                                                                                                                                                                                                                                                     |
| Adjustment | Implement clinical workflows to accommodate empathic food insecurity assessment and mitigation                                                                                                                                                                                                                                                                                                                                                           |
| Assistance | Provide people affected by cancer with useful guidance and resources, such as free or low-cost nutritious food offerings at the site of care; healthy food prescriptions, grocery vouchers, or direct food delivery; and enrollment in local and federal benefits (eg, Supplemental Nutrition Assistance Program) for which they qualify by adding navigation to food and other health-related social needs resources as part of core clinical workflow) |
| Alignment  | Invest in partnerships with local organizations that can mobilize food distribution to meet the needs of patients                                                                                                                                                                                                                                                                                                                                        |
| Advocacy   | Use data from awareness and adjustment efforts to advocate for policies to prevent food insecurity among patients with cancer and their families across the cancer care continuum                                                                                                                                                                                                                                                                        |



# Goals of Nutrition Therapy During Cancer Treatment

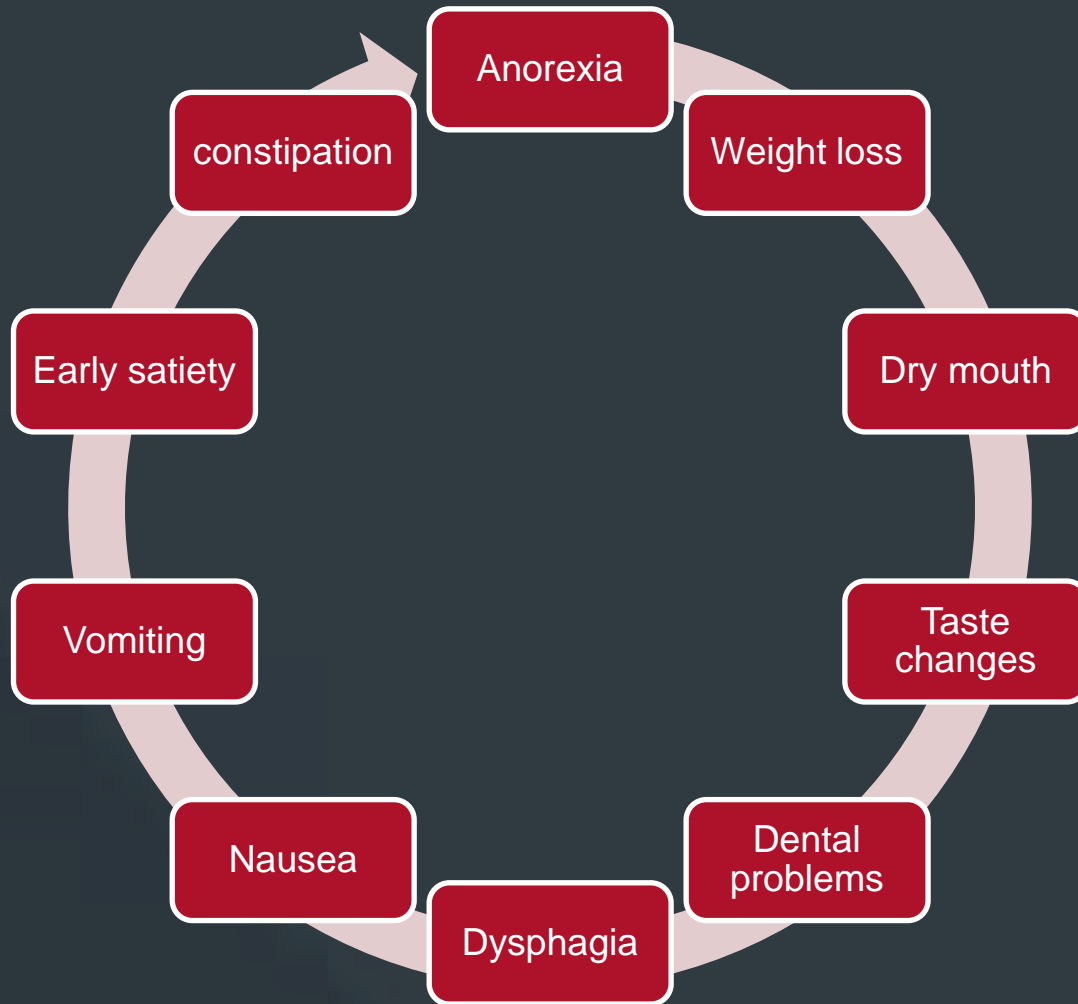
- Maintain weight and nutritional status in the well-nourished patient
- Prevent/manage nutrition impact symptoms
- Replete weight loss OR demonstrate weight maintenance

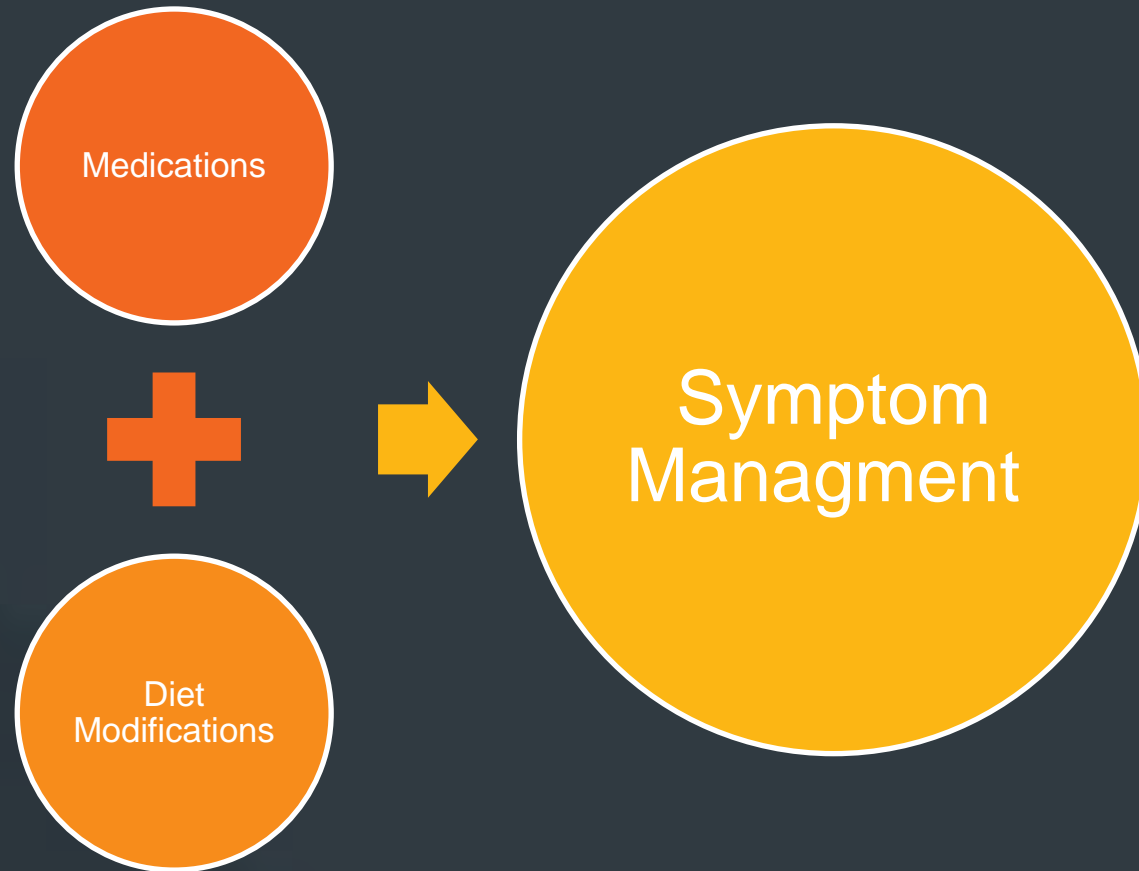


# Common Side Effect of Cancer Therapies



# Nutrition Impact Symptoms









# Diarrhea in Cancer Patients

## Types of diarrhea

- Exudative (Crohn's, UC, radiation enteritis, chemo) , malabsorptive (Celiac, pancreatic insufficiency) , osmotic (dumping syndrome) and secretory (gut GVHD, C Diff)

## Why does chemotherapy cause diarrhea?

- Chemo damages rapidly dividing cells
- The cells of the GI tract play a role in the absorption of fluid from the GI tract

## Other causes of diarrhea:

- Infections (c.diff), medications, concurrent diseases, cancer itself, radiation, surgery side effects



# Diarrhea

## Nutritional Management

- Limit insoluble fibers (nuts, leafy greens, beans, whole grains, bran products, fruits with seeds)
- More soluble fibers (oats, apples, NSA apples, lentils)
- Limit gas-producing foods
- Limit high fat foods
- Avoid caffeine
- More salty foods
- Lactose restriction??
- Adequate hydration
- Bowel rest/TPN if severe

## Pharmacologic Management

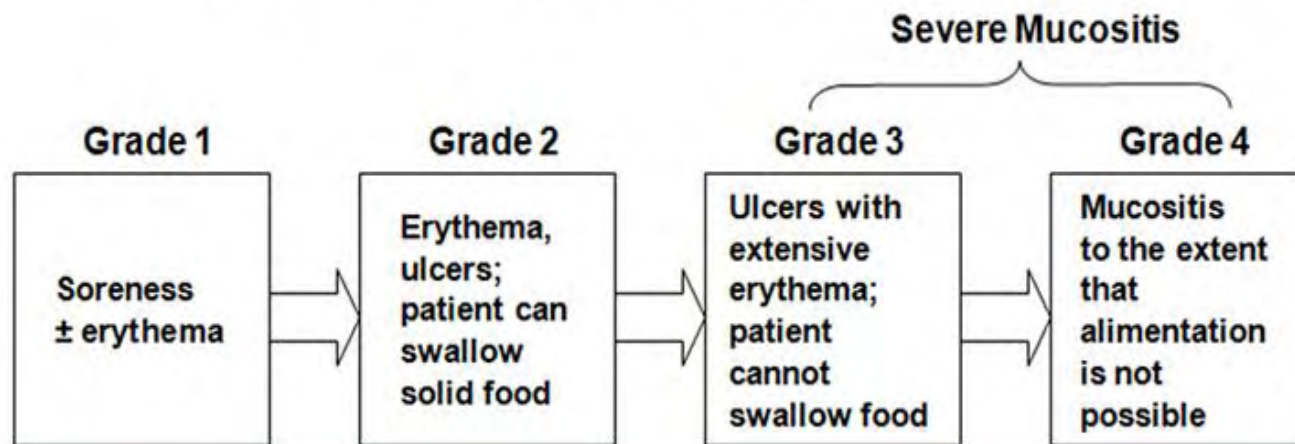
- Antidiarrheal agents (Lomotil, diphenoxylate/atropine, loperamide, codeine, morphine, bismuth subsalicylate, tincture of opium)
- Antibiotics (infections)
- Fat supplements (fat malabsorption)
- Hydration/electrolyte replacement

**5FU**  
**Irinotecan**  
**Capecitabine**



# Mucositis

## World Health Organization's Oral Toxicity Scale







# Xerostomia

## Nutritional Management

- Tart, sour
- Caloric be
- Gums and
- Moist food
- Use of ext  
gravies, a  
condimen  
calories and  
foods
- Avoid smoking, alcohol,  
alcohol-based mouth  
rinses

## Pharmacologic Management

**Narcotics**  
**Scopolamine patch**  
**Diuretics**  
**Smoking**  
**Radiation therapy**

cial saliva  
with care/prophylactic  
es



# Dysgeusia

## Nutritional Management

- Non-meat
- Use of meat seasoning
- Use of mirin or gum to
- Plastic eat
- Avoid cigarette smoking
- Counteract heightened taste with other flavors (lemon juice, salt, sugar)

## Pharmacologic Management

frequent oral hygiene  
zinc supplements??

**Smoking  
Antibiotics  
polypharmacy**



# Anorexia/Early Satiety

## Nutritional Management

- Small, frequent meals
- Nutrient-dense foods
- Boost and Ensure type supplements
- Caloric beverages between meals
- P.O. meds with caloric beverages

## Pharmacologic Management

- Progestins (Megace) \*\*
- Antidepressants (remeron)
- Prokinetic agents (reglan)
- Steroids\*\*
- Cannabinoids (marinol)





# Nausea/Vomiting

## Nutritional Management

- Dry, bland
- High Calorie
- Limit oral
- Small, frequent
- Diluted
- Diluted beverages
- Non-carbonated beverages
- Ginger
- **NO BOOST OR ENSURE!!**

## Pharmacologic Management

Antiemetics

**Cisplatin**  
**Carboplatin**  
**Cyclophosphamide**  
**Doxorubicin**  
**Ifosfamide**



# Summary

All cancer patients should be screened for malnutrition and assessed for treatment side effects

Early intervention is key to preventing malnutrition and managing side effects

Diet modification along with pharmacologic agents are the corner stone of symptom management

Food insecurity is a growing problem among cancer patients, more awareness is needed.



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