Nutrition During and After Cancer Treatment

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Learning Objectives

• Dietary risk factors
• Preparation for treatment
• Reducing and managing side effects
• Post-treatment self-care
• Cancer fighting foods
Cancer Overview

Cancer is a disease in which abnormal cells divide without control and are able to invade other tissues (National Cancer Institute)

Over 100 different types of cancer
(genetics, environment, diet and lifestyle)

In the U.S., more than 1.8 million people are expected to be diagnosed in 2020.

Over 40% of cancers are potentially preventable. 5 to 10% are genetic.
Dietary risk factors

**Increased risk:**
- Red and processed meat
- Fried, grilled, charred foods high in AGEs
- Saturated and trans fat
- Chemical exposure (pesticides, chlorine, food coloring)

**Decreased risk:**
- Diet high in fruits and vegetables
- Whole grains
- Vitamin D
- Healthy weight
Post-diagnosis

Whole food plant-based diet

Fruits, vegetables, whole grains, nuts, seeds, herbs, spices
  • Stimulate the immune system
  • Reduce inflammation
  • Prevent DNA damage and assist with repair
  • Detoxify carcinogens
  • Slow cancer cell growth
  • Regulate hormones

Lean protein (poultry and seafood) to be consumed in moderation.

The American Institute for Cancer Research recommends at least 2/3 of your plate be filled with plant-based foods.
Grocery shopping tips

• Choose fruits and vegetables in season
• Choose grass-fed meat/pasture-raised poultry
• Choose wild-caught seafood
• Choose organic dairy products
• Read the ingredients
  • SUGAR has over 60 different names
• Go without chemicals
  • Canned foods contain BPA

Choose foods from the earth, not from the lab
Preparing for treatment

- Keep it SIMPLE
- Nutrient dense foods
- Quality ingredients

Cooking methods: steaming, poaching, boiling, baking, broiling, roasting, stewing.

Tip: Increase fluid intake and avoid eating high fat, fried and greasy foods days before treatment.
Changes in metabolism

• Elevated blood sugar
• Decreased protein production
• Increased triglycerides

Recommended:
• Lower sugar intake
• Increase protein (include plant-based protein)
• Healthy fats

Consult a Registered Dietitian/nutritionist for support and monitoring.
Reducing and managing side effects

• **Nausea/vomiting**
  - Small, frequent meals
  - Dry foods
  - Prevent dehydration and constipation
  - Herbal teas with lemon, ginger or mint

• **Diarrhea**
  - Small, frequent meals
  - Electrolytes
  - Moderate soluble fiber
  - Potassium

Week of chemo: Include foods that are easy to digest, nourishing and comforting (ex. congee).
Reducing and managing side effects

- **Constipation**
  - Warm lemon water
  - Broth, soups
  - High fiber
  - Soluble fiber supplement, if necessary*

- **No appetite**
  - Nutrient dense
  - Keep healthy snacks available
  - Reminder (alarm)
  - Consider liquid nutritional supplement (protein), 2-4oz at a time.

Between treatments: Load up on nutrients when your appetite returns, including a variety of colorful fruits and vegetables.
Advanced stages

- Weight loss
- Malnutrition
- Pain

May require:
- Increased caloric intake
- High protein/fat content
- Less fiber

Recommended: Consult a Registered Dietitian (CSO) who specializes in oncology nutrition.
Antioxidants during treatment

- Supplements may interfere with chemo/radiation
- Most food sources are acceptable
  - Vitamins A, C, E
  - Minerals zinc and selenium

Ask your oncologist about use of dietary supplements during treatment.

See *Food Handling Tips* in MD Anderson’s Nutrition Basics for Patients and Caregivers in “Resources.”
After treatment

• Increase antioxidants to protect and build new cells
• Rebuild new tissues and strengthen immune system with quality protein
• Gradually increase physical activity
• Vitamin supplementation if needed
• Follow up with doctor
Cancer fighting foods

- Cruciferous vegetables
- Mushrooms
- Turmeric
- Garlic
- Berries
- Green leafy vegetables
- Green tea
One day at a time

Prioritize self-care
• Slow down
• Rest up
• Find joy
• Be kind to yourself
• Find support
Additional tips

Food storage:
• Freeze food in sizes you will use at one time.
• Label your containers with date/content.
• Avoid using plastic with hot liquids.

Cooking and reheating:
• Use cast-iron or stainless steep pots and pans instead of aluminum and non-stick surfaces.
• To prevent bacterial growth, thaw frozen food in the refrigerator or in cold water, not on the counter. If thawing in cold water, change the water every 30 minutes. Frozen meat should always be thawed in the refrigerator, which can take up to 48 hours.
• Avoid using the microwave. If you decide to reheat food in the microwave, avoid heating in plastic containers and use glass or ceramic containers instead.

Recommended kitchen equipment:
• Blender
• High quality water filter (or fill gallon jugs with reverse osmosis water at grocery stores, about 45 cents/gallon)

More food safety tips in MD Anderson’s Nutrition Basics for Patients and Caregivers! Please see ”Resources.”
Resources

- **American Cancer Society (Oregon)**
  ACS's website provides information on programs and resources to help with cancer-related expenses.

- **CancerCare**
  [https://www.cancercare.org](https://www.cancercare.org)

- **Compass Oncology**
  [https://compassoncology.com/cancer-survivorship/](https://compassoncology.com/cancer-survivorship/)
  Download their free Cancer Survivorship Guidebook

- **MD Anderson – Nutrition Basics for Patients and Caregivers**

- **Environmental Working Group**
  [https://www.ewg.org/](https://www.ewg.org/)
  EWG has created a cosmetics database which indexes and scores products based on EWG's views of their ingredients. Their Guide to Pesticides in Produce lists 44 fruits and vegetables based on the number of pesticides that were found to contain according to USDA data. The organization has also constructed a database of tap water testing results from public water utilities.

- **Instacart**
  [https://www.instacart.com](https://www.instacart.com)
  Grocery delivery
References

• Street W. Cancer Facts & Figures 2020. 1930:76.


• Images: Dirty dozen/Clean 15 from [www.ewg.org](http://www.ewg.org)
Q & A