

FRANKLY SPEAKING ABOUT CANCER

Eating Well During Cancer Treatment



A healthy diet is an important part of a cancer patient's journey before, during, and after treatment. Eating healthy can help prevent weight loss, lack of appetite, and other side effects of cancer treatment. It can help you feel better and respond better to your cancer treatment.

This booklet addresses how cancer patients can cope with common eating problems faced during treatment, like nausea or mouth sores. It also features recipes to help with common problems.

If you are not having any eating problems, see our *Nutrition for Cancer Survivors* booklet, at www.CancerSupportCommunity.org/SurvivorNutrition. If you are a head and neck cancer patient, see our *Eating Well with Head and Neck Cancer* booklet, at www.CancerSupportCommunity.org/HNCEating.



Why a Healthy Diet is Important at Each Step in the Cancer Journey

	EFFECT OF CANCER AND TREATMENT	HOW EATING HEALTHY HELPS
BEFORE TREATMENT	Cancer can cause problems like weight loss, loss of appetite, and trouble swallowing before treatment begins.	<ul style="list-style-type: none"> ■ Can help manage problems that may make eating difficult. ■ Can help prevent weight loss. ■ Helps your body keep the strength it needs to respond to treatment.
DURING TREATMENT	Eating problems like nausea or decreased appetite are common during cancer treatment. These problems can make it hard to feel well and eat healthy.	<ul style="list-style-type: none"> ■ Can help with side effects like nausea, diarrhea, or taste changes. ■ Can help maintain body weight and muscle mass. ■ Can help give you more energy. ■ Can help prevent delays or breaks in treatment. ■ Can help prevent hospital stays or reduce the time you are in the hospital. ■ Can help improve how well you respond to treatment. ■ Can help improve how well treatment works.
AFTER TREATMENT	<p>Some people with cancer have side effects that continue after treatment.</p> <p>Some people with cancer find it hard to maintain a healthy weight after cancer treatment.</p>	<ul style="list-style-type: none"> ■ Can help manage side effects and weight changes that continue after treatment. ■ Can help prevent other health conditions like heart disease and diabetes and is good for overall health.

WHAT IS AN ONCOLOGY REGISTERED DIETITIAN?

A Registered Dietitian (RD or RDN) is an expert on diet and nutrition. An RD who has the letters “CSO” after their name is a “Board Certified Specialist in Oncology Nutrition.” They have demonstrated experience and skills in helping cancer patients eat healthy and manage eating problems.¹ It is important for cancer patients to visit with an oncology dietitian to develop a plan for a healthy diet. If there is not a CSO available where you are receiving treatment, ask for an RD with oncology experience.

To find an oncology dietitian, you can search online (see Resources, page 27) or ask your health care team to recommend one. Meeting with your oncology dietitian on a regular basis helps you cope with eating problems as they occur and stay healthy. For example, patients who get help from an RD are able to limit weight loss better than patients who don’t get help from an RD.

OTHER HEALTH CARE TEAM MEMBERS CAN HELP WITH NUTRITION

There are many important members of your health care team who help support you during treatment. Each of these team members will have a role to help you stay healthy and strong. It is important to talk to each of them regularly about nutrition.

- **ONCOLOGIST (MD):** This is the doctor who usually coordinates your cancer treatment after surgery. (In some cancers, care is coordinated by the surgeon, such as a urologist or gynecologist.) Doctors can also help you get the right advice and treatment for your nutrition problems.
- **ONCOLOGY NURSE (RN, OCN):** Can help support you through medical and nutrition issues during your treatment.
- **PHYSICAL THERAPIST (PT) OR OCCUPATIONAL THERAPIST (OT):** Can help if you have weakness or problems doing normal activities. If treatment makes it hard to chew or swallow, a PT or OT can give you exercises to help.
- **SOCIAL WORKER (LCSW), PSYCHOLOGIST (PHD), OR PSYCHIATRIST (MD):** Can help with emotional support during treatment. Social workers may also help you find financial support and other resources to help you.
- **SPEECH-LANGUAGE PATHOLOGIST (SLP):** Can help if you are having swallowing problems while eating. The SLP provides ongoing treatment and exercises to help with swallowing. They will also work with your RD to ensure that you are eating the correct food textures and calories.

¹ In order to be a CSO, an RD must have 2,000 hours of oncology nutrition experience and pass a national exam every 5 years.

IMPORTANT QUESTIONS TO ASK YOUR MEDICAL TEAM:

BEFORE AND AFTER SURGERY	<ul style="list-style-type: none">■ Do I need to stop taking any over-the-counter supplements or vitamins before surgery?■ Is there a special diet that I need to follow before or after surgery?
FIRST VISIT WITH ONCOLOGIST	<ul style="list-style-type: none">■ How will my treatment affect my nutrition and eating?■ What side effects should I expect?■ Is there an oncology registered dietitian who I can meet with?
FIRST CHEMO OR RADIATION TREATMENT	<ul style="list-style-type: none">■ Are there any foods or over-the-counter supplements that I need to avoid during treatment?■ Will my treatment affect my bowel movements?■ How much fluid should I drink to stay hydrated?
FIRST VISIT WITH RD	<ul style="list-style-type: none">■ Can you help me with weight loss or weight gain?■ Are there any foods or tips that will help my symptoms?■ Can you help me with dietary supplements, special diets, food allergies, and intolerances?■ Can you help me make a plan for healthy eating during and after treatment?



Taking an Active Role in Your Cancer Treatment

Cancer can be overwhelming. There are so many questions, issues, and concerns that can come up. It is important to talk to your health care team about your questions and concerns. Make sure you write them down before your visits and include topics such as:

- Side effects, like nausea, diarrhea, or problems swallowing or chewing
- Inability to eat or drink regularly or having consistent pain when doing so
- Ongoing weight loss (see chart on page 16)
- Inability to complete normal tasks
- Severe diarrhea (>3 loose bowel movements per day)
- Severe constipation (>3 days with no bowel movement)
- Dehydration and lightheadedness
- Feeding tube issues like digestive problems (nausea, vomiting, bringing food back up, diarrhea, cramping, or bloating) or mechanical problems with the tube, like formula leaking or pain at the site
- Coughing or bringing food back up after eating. (You may need to meet with your speech-language pathologist to assess how well you swallow.)
- Trouble opening and closing your mouth to chew foods. (You may need to meet with your physical therapist for exercises to help you.)

- Ongoing depression or anxiety
- Remember always to talk to your health care team before taking any new drugs or any dietary supplements.

FOOD AND SYMPTOM JOURNAL

Another way to be an active partner with your health care team is to keep a food and symptom journal. It will help you track what you eat and your side effects. Show this journal to your health care team often so they can address and manage any issues. It will help your team manage your treatment and recommend the healthiest diet for you. The next page has a sample food and symptom journal you can use.

NUTRITION SUPPORT WITH A FEEDING TUBE

If you have problems swallowing or have lost a lot of weight, your health care team may recommend a feeding tube. It is a short-term solution for making sure that you get the right amount of calories and nutrients. Though it can be a tough decision, a feeding tube can reduce your stress about eating and prevent further weight loss. You may still be able to eat by mouth while using a feeding tube. Once you can eat enough by mouth, the feeding tube can be easily removed. Then you can get back to eating normally.

Daily Food & Symptoms Diary

Date:

Make copies of this and fill out daily.

BREAKFAST			Time:
FOOD & DRINKS	SERVING SIZE	SYMPTOMS	
			<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe

LUNCH			Time:
FOOD & DRINKS	SERVING SIZE	SYMPTOMS	
			<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe

DINNER			Time:
FOOD & DRINKS	SERVING SIZE	SYMPTOMS	
			<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe

SNACKS			Time:
FOOD & DRINKS	SERVING SIZE	SYMPTOMS	
			<input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe

Did you make any changes to your eating habits today? If yes, what did you change? Did it help any symptoms?

Coping with Eating Challenges from Cancer Treatment



Cancer treatment can cause eating problems that may be challenging for both the patient and the caregiver. These problems often continue after treatment has ended. Side effects like being too tired or not wanting to eat are normal and will pass with time. The good news is that a healthy diet can help with managing these side effects. The following pages provide some tips on how to manage eating problems caused by cancer treatment.

APPETITE CHANGES

(Not Feeling Hungry, Feeling Full Quickly or Feeling too Hungry):

If you don't feel hungry or feel full too quickly:

- Eat 5-6 small meals throughout the day, instead of 3 big meals.
- Eat with friends or family or watch television while eating to take your mind off your lack of appetite.

HAVE EASY-TO-EAT, EASY-TO-PREPARE FOODS IN THE HOUSE

- Yogurt, pudding, or applesauce
- Cottage cheese with canned fruit
- Whole grain cereals
- Low sodium canned soups
- Oatmeal packets
- Pre-made smoothies
- Peanut butter crackers
- Trail mix or nuts (if you can chew and swallow well)
- Mashed or baked potatoes
- Pre-made nutritional drinks
- Hard boiled eggs
- Hummus dip
- Pasta salad, tuna salad, egg salad

- Keep an eating and drinking schedule and set an alarm to remind you to eat.
- Keep snacks next to you during chemotherapy or while in bed.
- Make mealtime as pleasant as possible. One idea is to set the table, use nice plates, and have flowers as a centerpiece.

If you have an increased appetite, or feel more hungry than usual:

- Eat small frequent meals throughout the day instead of 3 big meals.
- Limit high calorie foods such as pizza, fried foods, foods made with cheese or cream, desserts.
- Choose lower calorie foods like fresh fruits and vegetables, baked or grilled poultry and fish, and beans.
- Eat higher fiber foods such as whole grains, fruits, vegetables, nuts, and beans to help you feel more full.
- Include small portions of healthy fats from avocado ($\frac{1}{8}$ slice), nuts ($\frac{1}{4}$ cup), or nut butters (2 tbsp) to help you feel more full.
- Be aware of the right portions. For example, a portion of meat is about the size of a deck of cards, a piece of fruit or a serving of vegetables is the size of a baseball, a serving of grains is the size of a lightbulb, a serving of nuts is the size of a golf ball.
- Drink a glass of water before meals to fill up and avoid overeating.

CHANGES IN TASTE AND SMELL

Foods may taste or smell different every day. You may find it helpful to keep trying different foods to find what appeals to you.

If everything tastes bland or has no taste:

- Add stronger flavors onto foods. Pickles, condiments, sauces, dressings, vinegar, or citrus juices may help. (You may need to avoid these if you have mouth or throat sores.)
- Add spices and seasonings to enhance the flavor of your food.
- Marinate meats for a stronger flavor.
- Suck on sugar free tart candies before or after a meal.
- Clean your mouth with homemade baking soda rinse. (See page 13)

If everything tastes metallic or bitter:

- Add sweeteners such as honey or pure maple syrup onto foods to offset the bitter taste.
- Choose other protein sources (such as fish, chicken, or beans) if red meat tastes metallic.
- Use plastic utensils instead of silverware.
- Avoid cooking on iron skillets.

If the smell of food makes you not want to eat:

- Avoid being in the kitchen when food is being made.

- Choose cold or room-temperature foods instead of hot foods, which can smell stronger.
- Light a scented candle or essential oil diffuser to remove unpleasant or offensive odors.
- Open a window or turn on a fan to minimize the smells.



Try these recipes (located in the back of this booklet) if you are having trouble with changes in taste and smells:

- **Apple Cinnamon Muffins**
- **Baked Falafel with Ginger Tzatziki**
- **Cauliflower Burgers**
- **Cheesy Chicken Millet Bake**
- **Chicken Puttanesca over Zucchini**
- **Golden Milk Popsicles**
- **Mango Lassi Overnight Oats**
- **Turkey and Barley Vegetable Soup**

For more recipes, go to www.CancerSupportCommunity.org/Recipes

PROBLEMS CHEWING OR SWALLOWING

Choose foods that are easier to chew and swallow:

- Soft foods, such as scrambled eggs, oatmeal, soft pasta, potatoes, soups, and stews
- Softer protein sources such as fish, ground meats, eggs, beans, and creamy nut butters
- High calorie drinks, such as smoothies, milkshakes, or nutritional supplements. (Be sure to discuss all nutritional supplements with your health care team first.)

Stay away from foods that could cause chewing or swallowing pain:

- Hard foods, such as crackers, crusty breads, raw vegetables, and crunchy cereals
- Tough meats, such as steak, pork chops, turkey, or chicken breast
- Acidic foods such as tomatoes and citrus fruits

Make foods easier to chew and swallow by:

- Adding dressing, sauces, or gravy to meats and other dishes
- Pureeing foods in the blender
- Thickening foods as needed with cornstarch, baby cereal, potato flakes, gelatin, or commercial thickeners

If you have trouble opening and closing your mouth to chew foods, talk to your health care team. You may need to meet with your physical therapist for exercises to help you.

If you regularly cough or bring food back up after eating, be sure to tell your health care team. You may need to meet with a speech-language pathologist to assess how well you swallow.



If you have difficulty chewing or swallowing, try these recipes:

- **Golden Milk Popsicle**
- **Mango Lassi Overnight Oats**
- **Turkey and Barley Vegetable Soup**

CONSTIPATION

Food tips for constipation:

- Increase foods that can help promote a bowel movement:
 - Choose high fiber foods, such as whole grains, fruits, vegetables, nuts, and beans.
 - Try prunes and other dried fruits and juices, such as prune or apple juice.
 - Drink hot beverages, such as herbal tea and decaffeinated coffee.
- Make sure you drink enough fluids.
- If you are having gas and bloating, stay away from “gassy” vegetables like cabbage, broccoli, cauliflower, peas, corn, and beans. Avoid drinking through a straw or chewing gum. These can also make gas and bloating worse.

Non-food tips for constipation:

- Move more if you are able - walk, stretch, or do yoga.
- Talk to your health care team about drugs or other tips that can help with constipation.

“My pain meds were making me constipated. Two things that helped were carrying a water bottle to make sure I drank more fluids and eating a breakfast of oatmeal with flax seeds each morning.”

— Jack, metastatic lung cancer patient



Remember always to talk to your health care team before taking any drugs or dietary supplements!

 These are examples of recipes that are ideal if you are experiencing constipation:

- **Baked Falafel with Ginger Tzatziki**
- **Cheesy Chicken Millet Bake**
- **Chicken Puttanesca over Zucchini Noodles**
- **Mango Lassi Overnight Oats**

For more recipes, go to www.CancerSupportCommunity.org/Recipes

DIARRHEA

Foods to AVOID when you have diarrhea:

- Alcohol and caffeinated drinks
- Dairy foods (other than cultured dairy like yogurt or kefir)
- Foods that are high in sugar, such as juices or sweets
- Greasy and fried foods
- High fiber and bulky foods, such as raw vegetables, nuts, and whole grains

Easy-to-digest foods to eat when you have diarrhea:

- Apples (without skin) or applesauce
- Baked chicken, turkey, or fish
- Bananas
- Canned fruit (in juice), such as canned peaches or pears
- Oatmeal, barley, or cream of rice cereal
- Plain potatoes without skin
- White rice or pasta

- Drink hydrating fluids with electrolytes, such as coconut water, broth, electrolyte drinks, and diluted fruit juices. Carry a water bottle to stay hydrated.
- Eat probiotics from food such as yogurt, kefir, and fermented foods. Talk to your health care team before taking any probiotic supplements



To help manage diarrhea, try our **Apple Cinnamon Muffins** and **Turkey and Barley Vegetable Soup** recipes

DRY MOUTH

Food tips for dry mouth:

- Avoid alcohol and limit caffeinated drinks.
- Increase your saliva by:
 - Sucking on sugar free tart candies prior to eating
 - Chewing on sugar free gum in between meals
 - Moistening foods with sauces and gravies
 - If acidic foods don't irritate your mouth or throat, you can also try:
 - Adding lemon or lime to water
 - Using citrus fruits or juices in marinades or dressings
- Limit dry or hard-to-swallow foods, such as baked potatoes, peanut butter, tough meat, and “doughy” bread.
- Make sure you drink enough fluids to prevent dehydration. Carry a water bottle with you to stay hydrated.



Staying hydrated can help prevent dry mouth and taste changes. Aim for at least 64 oz (8 cups) of hydrating fluids daily unless told otherwise by your doctor.

Non-food tips for dry mouth:

- Apply lip balm or petroleum jelly to protect your lips.
- Sleep with a humidifier in your room to help moisten your mouth at night. Be sure to clean the humidifier regularly.
- Use alcohol-free mouthwash daily and/or saliva substitutes.



These are examples of moist recipes to help with dry mouth:

- **Cheesy Chicken Millet Bake**
- **Chicken Puttanesca over Zucchini Noodles**
- **Golden Milk Popsicles**
- **Turkey and Barley Vegetable Soup**

For more recipes, go to www.CancerSupportCommunity.org/Recipes

FATIGUE (Feeling tired):

- Ask family and friends to help make meals and assist with other daily tasks.
- On days that you have more energy, cook soup or stews in bulk to have meals on hand.
- Increase your physical activity as best you can in order to help fight fatigue.
- Take it one day at a time and look at each day as a new day.
- Take breaks throughout the day.
- Try something you did not do yesterday and try not to let your lack of energy discourage you.
- Try not to overdo it on higher energy days, so you can conserve your energy.



MOUTH SORES AND MOUTH PAIN

Food tips for mouth sores and mouth pain:

- Choose foods that help soothe the mouth, including:
 - Cold foods, such as popsicles, frozen fruit, and ice cream
 - Soft, mild foods, such as cottage cheese, smoothies, and yogurt
 - Well-cooked, soft meals such as potatoes, macaroni and cheese, casseroles, stews, and ground meats
- Avoid foods that could irritate the mouth, including:
 - Acidic or spicy foods, such as citrus fruits, tomatoes, peppers, and vinegar
 - Alcohol and carbonated drinks
 - Crunchy or hard foods, such as crusty bread, pretzels, and chips
 - Hot foods – choose room temperature or cold instead

Non-food tips for mouth sores and mouth pain:

- Drink through a straw to avoid sore spots
- Suck on ice chips when you have mouth pain
- Use a baking soda rinse before and after meals



Find these soft, easy-to-chew, and mild recipes to help with mouth pain at the back of this booklet:

- **Golden Milk Popsicle**
- **Mango Lassi Overnight Oats**

For more recipes, go to www.CancerSupportCommunity.org/Recipes

“To eat ravioli, I rinsed off the tomato sauce and replaced it with white sauce.”

— Dave, head & neck cancer patient



BAKING SODA MOUTH RINSE

Rinse your mouth out with a homemade baking soda rinse. Swish and spit, **do not swallow**. Prepare a new batch each day.

- ½ tsp salt
- 1 tsp baking soda
- 1 quart of water

NAUSEA AND VOMITING

Food tips for nausea and/or vomiting:

- Even though you do not feel like eating, an empty stomach can make nausea worse. Aim to eat a small amount of food every 1-2 hours to prevent nausea.
- Choose bland foods, such as plain pasta or rice. If dry mouth isn't a problem, you can also try dry food such as crackers and pretzels.
- Choose room temperature or cold foods, instead of hot entrees.
- Drink ginger tea or chew ginger candies when you feel nauseous.
- Drink hydrating fluids (such as water, 100% juice, coconut water, or chamomile or ginger tea) throughout the day to prevent dehydration.
- Limit your intake of fried, greasy, or "heavy" foods, as these can make nausea worse.

Non-food tips for nausea and/or vomiting:

- If drugs or supplements make you nauseous, talk to your health care team about taking them with food, instead of on an empty stomach.
- Talk to your health care team about anti-nausea drugs. For the most benefit, take anti-nausea drugs 30-45 minutes prior to a meal. You may also need to take them around the clock, instead of as needed.
- Try deep breathing, meditation, or guided imagery to help settle your stomach and mind.



These are examples of recipes to help with nausea:

- **Apple Cinnamon Muffins**
- **Golden Milk Popsicles**
- **Mango Lassi Overnight Oats**
- **Turkey and Barley Vegetable Soup**

For more recipes, go to www.CancerSupportCommunity.org/Recipes

“My doctors rotated my anti-nausea meds so that they would work better. Taking dissolvable Zofran helped me a lot if I was out and food smells started to make me nauseous. I wouldn't necessarily be able to eat, but I wouldn't regret going out... I could sit through dinner without getting sick.”

— Chris, head & neck cancer patient

WEIGHT LOSS

It is important to prevent weight loss during cancer treatment. To prevent weight loss and add calories to your diet:

- Add healthy high-calorie additives to the foods you eat regularly:
 - Avocado
 - Olive oil or butter
 - Nuts and seeds
 - Cheese
 - Sauces and gravies
 - Dried fruit
 - Peanut butter, almond butter, or other nut butters
- Aim to eat 5-6 small meals daily, instead of 3 big meals.
- Include high-calorie smoothies or nutritional drinks to your daily routine.



- Include high-protein foods to help your body heal and prevent further muscle mass loss:
 - Nuts, seeds, and nut butters
 - Beans
 - Meat
 - Fish
 - Poultry
 - Eggs
 - Dairy products
- Talk to your health care team about physical therapy if you feel weak or unable to maintain your daily routine.



Try these tasty, high-calorie recipes:

- **Apple Cinnamon Muffins**
- **Baked Falafel with Ginger Tzatziki**
- **Cauliflower Burgers**
- **Cheesy Chicken Millet**
- **Chicken Puttanesca over Zucchini Noodles**
- **Golden Milk Popsicle**
- **Mango Lassi Overnight Oats**
- **Turkey and Barley Vegetable Soup**

For more recipes, go to www.CancerSupportCommunity.org/Recipes

Be aware of ongoing weight loss. Use the chart below to learn more about how much weight loss is too much and may signal malnutrition.

WEIGHT LOSS TIME FRAME 	PERCENTAGE OF WEIGHT LOSS THAT IS SIGNIFICANT*	IF YOU WEIGHED 150 LBS., SIGNIFICANT LOSS* IS	IF YOU WEIGHED 200 LBS., SIGNIFICANT LOSS* IS
1 MONTH	>5%	7.5 lbs.	10 lbs.
3 MONTHS	>7.5%	11.25 lbs.	15 lbs.
6 MONTHS	>10%	15 lbs.	20 lbs.
1 YEAR	>20%	30 lbs.	40 lbs.

* It is important to let your doctor and dietitian know about any weight loss, even if yours is not this large.

Consensus Statement of the Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition: Characteristics Recommended for the Identification and Documentation of Adult Malnutrition (Undernutrition), 2012.

WEIGHT GAIN

Some patients experience weight gain during or after cancer treatment. It can be related to many factors. These can include appetite changes, decreased activity, hormonal treatment, steroids, and for women whether or not they've reached menopause. Managing weight gain is all about choosing a healthier lifestyle by eating healthy foods and exercising within your ability.

Choose healthier foods

- Avoid higher calorie foods made with rich creamy sauces, cheese, oils, and fried foods.
- Fill up more of your plate with lower calorie fruits, non-starchy vegetables, and high-fiber whole grains.
- Choose baked or broiled fish and lean meats like skinless chicken and turkey breast over high fat meats like hamburgers, steak, pork, and roasts.

Keep a food journal and meal plan

- Planning ahead and tracking what you eat can help you to stick with your goals. Food journals and meal planning help can be found at: www.eathealthy.org.
- Identify parts of your diet that can be improved and set goals to work on them.

Avoid empty calories

- Avoid high-calorie sugar-sweetened beverages, baked goods, and processed foods which offer little or no nutrition benefit.
- Choose beverages like water, seltzer, and plain tea. Flavor them with your favorite fruits.

Include more physical activity

- Aim for at least 150 minutes of moderate physical activity per week.
- Find a friend to stay active with you.
- If you are able, consider including cardio, stretching, and resistance training to help maintain or increase your muscle mass.



AVOID LARGE PORTIONS. When dining out aim to eat half and take half home.

USE VISUAL CUES TO HELP YOU EAT RIGHT.

Here are some examples:

- | | |
|---|--|
| ■ Deck of cards:
3 oz of meat | ■ Computer mouse:
½ cup chopped fruit
or vegetables |
| ■ Baseball:
1 medium fruit | ■ Palm: 2 oz. nuts |
| | ■ Thumb: 1 Tbsp oil |

Food Safety

It is important to handle food safely during cancer treatment. Cancer and cancer treatment can weaken your immune system and make you more prone to infection. This includes infection from foods. The following tips are helpful ways to keep your food safe.

- Wash your hands before eating.
- Keep surfaces that come into contact with food clean.
- Keep hot foods hot (above 140°F) and cold foods cold (below 40°F).
- Avoid cross contaminating raw meats and vegetables. Store raw meat on the lowest shelf to avoid juices contaminating other foods.
- Wash raw fruits and vegetables well before eating.
- Avoid high risk foods like undercooked eggs, meat, poultry, fish, or shellfish and unpasteurized milk or cheese.
- Avoid high risk foods like sushi, ceviche, raw bean and alfalfa sprouts, foods from street vendors, and self-serve buffets.
- Thaw frozen meats in the refrigerator and not on the counter.
- Refrigerate foods promptly after eating.
- Your healthcare team may give you more specific instructions.



COOK MEATS THOROUGHLY

- When roasting meat and poultry, use an oven temperature no lower than 325°F.
- Cook ground meats to 160°F, ground poultry to 165°F, and fresh pork to 160°F.
- Whole poultry should reach 180°F in the thigh and 170°F in the breast.
- Beef, veal, lamb steaks, roasts, and chops may be cooked to 145°F.

Apple Cinnamon Muffins



RECIPE TO HELP WITH DIARRHEA, NAUSEA, TASTE CHANGES, OR ADDING CALORIES TO YOUR DIET

Prep time: 10 minutes | **Cook time:** 25 minutes | **Serves:** 12

Perfect for a light breakfast or mid-morning snack, these muffins are a healthy way to start the day. The apples and oats provide soluble fiber, which can help with diarrhea relief. The pure maple syrup gives them an enjoyable hint of natural sweetness. Don't have apples on hand? Switch them out with some fresh peaches or berries for an enjoyable summer treat.

INGREDIENTS

- 1 cup all-purpose flour
- $\frac{2}{3}$ cup whole wheat flour
- 1 tsp baking powder
- 1 tsp baking soda
- 1 tsp cinnamon
- $\frac{1}{2}$ tsp salt
- 1 egg
- $\frac{1}{2}$ cup pure maple syrup
- $\frac{1}{2}$ cup milk
- $\frac{1}{3}$ cup applesauce
- 1 tsp vanilla extract
- 2 small thinly diced apples
- $\frac{1}{3}$ cup old fashioned oats

DIRECTIONS

1. Preheat oven to 325 degrees F. Grease muffin tin.
2. Combine flours, baking powder, baking soda, cinnamon, and salt in small bowl.
3. In a larger bowl, combine egg, syrup, milk, applesauce, and vanilla extract.
4. Add dry ingredients to wet ingredients and mix until combined.
5. Mix in apples and oats.
6. Spoon batter into prepared muffin tin. Place in preheated oven.
7. Bake for 23-25 minutes until lightly browned and center cooked.



DID YOU KNOW? Oats contain a healthy type of soluble fiber called beta-glucans, which can have benefits for heart health.

NUTRITIONAL DATA:

Per serving: 130 calories, 1 gram fat, 0 gram saturated fat, 15 mg cholesterol, 250 mg sodium, 29 grams carbohydrate, 2 grams dietary fiber, 3 grams protein



Baked Falafel with Ginger Tzatziki

RECIPE TO HELP WITH NAUSEA, TASTE CHANGES, CONSTIPATION, OR ADDING CALORIES TO YOUR DIET

Prep time: 10 minutes | **Cook time:** 25 minutes | **Serves:** 4

Falafel is a fun and healthy dish, full of nutrition and flavor. This version is baked instead of fried, so it is lower in fat and easier to tolerate for those with digestive issues. The tzatziki dip has a light ginger and lemon flavor, both of which can be helpful for nausea. If you are looking for a heartier meal, place falafel on a pita or naan bread and top with tzatziki, hummus, and fresh vegetables.

INGREDIENTS

- 1 can chickpeas, drained
- 1 cup fresh parsley
- ½ cup fresh cilantro
- ¼ cup fresh mint
- 1 clove garlic, minced
- 2 Tbsp lemon juice, divided
- ½ tsp salt
- 1 tsp cumin
- ½ tsp baking powder
- 2 Tbsp flour
- ¾ cup plain Greek yogurt
- ½ cucumber, grated
- 1 inch ginger slice, grated

DIRECTIONS

1. Preheat oven to 375 degrees F. Spray baking sheet with cooking spray.
2. Combine chickpeas, herbs, garlic, 1 Tbsp lemon juice, salt, cumin, baking powder, and flour in large food processor or blender. Blend until combined.
3. Form into small patties and place on prepared baking sheet.
4. Bake for 20-25 minutes, flipping halfway, until browned on both sides.

5. While falafel patties are cooking, make tzatziki dip. Combine yogurt, cucumber, remaining lemon juice, and grated ginger in a small bowl. Place in refrigerator until ready to eat.
6. To eat, dip falafel in tzatziki sauce and enjoy!

TIP: Use leftover mint in a tea, steeped with honey and lemon.



NUTRITIONAL DATA: Per serving: 150 calories, 2.5 grams fat, 0 grams saturated fat, 0 mg cholesterol, 520 mg sodium, 23 grams carbohydrate, 5 grams dietary fiber, 10 grams protein

Cauliflower Burgers



RECIPE TO HELP WITH CONSTIPATION, TASTE CHANGES, OR ADDING CALORIES TO YOUR DIET

Prep time: 10 minutes | **Cook time:** 30 minutes | **Serves:** 10

These burgers are made from cauliflower and millet, two foods that are high in fiber, making them ideal to relieve constipation. They are also high in protein to help with healing. You can get riced cauliflower in the frozen vegetable section of many grocery stores. You can also rice your own cauliflower, using a box grater or food processor. Top these delicious burgers with cheese, avocado, or lettuce and tomato for a delightful treat.

INGREDIENTS

- 1 (12 oz) frozen bag of riced cauliflower
- 1¼ cup cooked millet (or quinoa)
- ½ cup whole wheat breadcrumbs
- 1 tsp cumin
- 1 garlic clove, minced
- ¾ cup shredded cheddar cheese
- 2 eggs
- 1 tsp salt
- 10 whole wheat hamburger buns (or other bread of choice)

DIRECTIONS

1. Squeeze out excess fluids from riced cauliflower in clean dish towel.
2. Add riced cauliflower and remaining ingredients into a large food processor or blender. Blend until the ingredients come together.
3. Remove from blender and form into 10 patties.
4. Spray large skillet with cooking spray and set to medium heat.
5. Add patties and cook for 5 minutes on each side, or until browned.
6. Repeat with remaining patties.
7. Serve on whole wheat hamburger buns. Top with desired toppings.



TIP: Make these burgers ahead of time and store in the freezer for a quick lunch or dinner.

NUTRITIONAL DATA: Per serving: 250 calories, 7 grams fat, 2.5 grams saturated fat, 45 mg cholesterol, 560 mg sodium, 35 grams carbohydrate, 1 gram dietary fiber, 12 grams protein



Cheesy Chicken Millet Bake

RECIPE TO HELP WITH CONSTIPATION, TASTE CHANGES, DRY MOUTH, OR ADDING CALORIES TO YOUR DIET

Prep time: 30 minutes | **Cook time:** 20 minutes | **Serves:** 6-8

This millet bake is just as comforting as a traditional chicken and rice casserole, but higher in protein and fiber. The leeks add a rich flavor and the cheese gives it a creamy texture. It is a perfect meal to make ahead of time to freeze in individual portions. Since it is high in calories and protein, this millet bake is a good recipe to help those needing to gain weight.

INGREDIENTS

- 1 cup millet
- 2 cups water
- 2 Tbsp olive oil, divided
- 1 lb. ground chicken breast
- 2 leeks, cleaned and chopped
- 2 cups fresh spinach, chopped
- 1 Tbsp olive oil
- 1 cup milk
- 2 garlic cloves, minced
- 1 tsp dried basil
- ½ tsp paprika
- 1 tsp salt
- Pepper to taste
- 1½ cup shredded cheddar cheese*
- ½ cup grated parmesan cheese*

DIRECTIONS

1. Preheat oven to 350 degrees F. Lightly grease baking dish.
2. Cook millet according to package instructions. Once water is absorbed, place cooked millet in baking dish.
3. While millet is cooking, add 1 Tbsp of olive oil into large skillet. Once heated, brown chicken in skillet, seasoning with salt and pepper. Remove from pan once cooked and add to baking dish with millet.
4. Add leeks and spinach, cook for 5 minutes, until softened. Add to baking dish with millet.
5. Heat olive oil over medium heat. Sauté garlic cloves, add milk and spices. Let it come to a simmer and then add cheddar. Stir until melted. Add to baking pan and mix together.
6. Top with parmesan cheese. Bake for 20 minutes until lightly browned.

*May omit or reduce parmesan and substitute lower sodium cheese if reduced sodium content is needed



DID YOU KNOW?

Millet is a high fiber grain that is also gluten free.

NUTRITIONAL DATA: Per serving: 410 calories, 17 grams fat, 7 grams saturated fat, 80 mg cholesterol, 780 mg sodium, 33 grams carbohydrate, 4 grams dietary fiber, 32 grams protein

Chicken Puttanesca over Zucchini Noodles



RECIPE TO HELP WITH TASTE CHANGES, CONSTIPATION, DRY MOUTH, OR ADDING CALORIES TO YOUR DIET

Prep time: 5 minutes | **Cook time:** 30 minutes | **Serves:** 4

This chicken dish features vibrant flavors from olives, capers, and tomatoes. The chicken pairs perfectly with nutritious zucchini noodles. Find these in the frozen vegetable section at the grocery store. You can also use a spiralizer to make your own. This recipe is also full of nutrition: high in fiber, protein, and healthy fat. If you are looking for extra calories to promote weight gain, choose whole wheat pasta instead of spiralized vegetables.

INGREDIENTS

- 1 lb. boneless, skinless chicken breasts
- 2 Tbsp olive oil, divided
- ½ cup onions, diced
- 2 cloves garlic, minced
- 28 oz can crushed tomatoes
- ¼ cup fresh parsley
- 1 tsp dried oregano
- 1 tsp dried basil
- ¾ cup green olives, pitted and drained*
- ¾ cup Kalamata olives, pitted and drained*
- 2 oz capers, drained*
- 2 zucchinis, spiralized (or any prepackaged or frozen spiralized vegetable of choice)

DIRECTIONS

1. Heat 1 Tbsp of olive oil over medium heat. Add chicken breasts and cook for 4-5 minutes on each side until browned. Remove from pan.
2. Heat remained olive oil in large skillet. Add onions and cook for 6-8 minutes until translucent. Add garlic and cook for additional 1 minute.
3. Add tomatoes, herbs, olives, and capers to the skillet and simmer for 10 minutes.
4. Add chicken back into the pan and cook for an additional 4-5 minutes until heated through.
5. While tomato sauce is simmering, spiralize your zucchini. Heat small amount of olive oil into skillet. Add zucchini noodles and cook for 3-5 minutes, tossing regularly. Remove from pan.
6. To serve, place zucchini noodles on plate and top with chicken and sauce.



DID YOU KNOW?
Tomatoes are a healthy source of lycopene, an antioxidant which may reduce heart disease risk.

*May substitute low sodium olives and capers if reduced sodium content is needed

NUTRITIONAL DATA: Per serving: 360 calories, 19 grams fat, 2.5 grams saturated fat, 73 mg cholesterol, 1450 mg sodium, 25 grams carbohydrate, 7 grams dietary fiber, 31 grams protein



Golden Milk Popsicle

RECIPE TO HELP WITH MOUTH SORES, DIFFICULTY SWALLOWING, DRY MOUTH, NAUSEA, TASTE CHANGES, OR ADDING CALORIES TO YOUR DIET

Prep time: 10 minutes | **Serves:** 4

Popsicles are an ideal snack for patients who have mouth sores. These popsicles will help soothe and numb the mouth, but also provide a healthy amount of protein to help with healing. The turmeric and cinnamon in these popsicles provide a warm and balanced flavor. If a popsicle is too cold for your mouth, enjoy these as a smoothie or scooped on top of oatmeal.



DID YOU KNOW? Turmeric, a derivative of curcumin, is a healthy source of polyphenols, which may help with inflammation.

INGREDIENTS

- 2 cups vanilla Greek yogurt
- ½ tsp turmeric
- ⅛ tsp ground ginger
- ¼ tsp cinnamon

DIRECTIONS

1. Combine all ingredients in blender. Blend until smooth.
2. Pour mixture into popsicle molds and freeze until solid, at least 4 hours.

NUTRITIONAL DATA: Per serving: 120 calories, 3.5 grams fat, 2 grams saturated fat, 5 mg cholesterol, 50 mg sodium, 13 grams carbohydrate, 0 grams dietary fiber, 11 grams protein



Mango Lassi Overnight Oats

RECIPE TO HELP WITH DRY MOUTH, MOUTH SORES, DIFFICULTY SWALLOWING, NAUSEA, CONSTIPATION, TASTE CHANGES, OR ADDING CALORIES TO YOUR DIET

Prep time: 10 minutes (plus overnight refrigeration) | **Serves:** 2

Overnight oats are an easy make-ahead breakfast for patients with cancer. The mango provides a sweet flavor and the Greek yogurt is slightly tart, making this breakfast bowl perfect for those with dry mouth. This recipe is ideal for those undergoing cancer treatment who need extra protein, fiber, and calories. Serve with a cup of lemon herbal tea for a tasty breakfast.

INGREDIENTS

- 2 mangos, peeled and diced
- ½ cup plain Greek yogurt
- 2 tsp pure maple syrup
- ⅔ cup milk
- 2 Tbsp chia seeds
- ½ cup oats
- Fruit or nuts to top

DIRECTIONS

The night before:

1. Combine mangos, yogurt, syrup, and milk in blender. Blend until smooth.
2. Mix in oats and chia seeds.
3. Pour into two separate bowls and place in the refrigerator.

The next morning:

4. Top with fruit, nuts, or eat plain.

NUTRITIONAL DATA: Per serving:
420 calories, 8 grams fat, 2 grams saturated fat, 10 mg cholesterol, 65 mg sodium, 79 grams carbohydrate, 9 grams dietary fiber, 16 grams protein



DID YOU KNOW?

Mangoes contain carotenoids, an antioxidant which may help boost the immune system.



Turkey and Barley Vegetable Soup

RECIPE TO HELP WITH DIFFICULTY SWALLOWING, DIARRHEA, NAUSEA, TASTE CHANGES, DRY MOUTH, OR ADDING CALORIES TO YOUR DIET

Prep time: 45 minutes | **Cook time:** 30 minutes | **Serves:** 8

This soup is comforting and delicious and is a great option for those who have trouble swallowing. It is also high in protein, which is important for healing, and a good source of fiber, which helps promote healthy bowel movements. To save time, make barley ahead of time or swap it out for quinoa which has a shorter cooking time.

INGREDIENTS

- 1 lb. ground turkey
- 1 Tbsp olive oil
- ¾ cup pearly barley, uncooked
- 3½ cups water
- 1 onion, diced
- 2 celery stalks, diced
- 1 zucchini, finely diced
- 1 yellow squash, finely diced
- 1 14 oz can petite diced tomatoes
- 1 14 oz can French cut green beans, drained
- 4 cups low sodium chicken broth
- 2 cups water
- 1 tsp oregano
- 1 tsp salt
- ½ tsp pepper
- 3 Tbsp fresh parsley
- Parmesan (optional)

DIRECTIONS

1. Add barley, 1½ cups water, and pinch of salt in large pot. Bring to a boil, then simmer and cover for 45 minutes until water is absorbed.
2. While barley is cooking, brown ground turkey in a medium skillet. Drain and set aside.

3. Heat olive oil into large stockpot. Add onions, celery, zucchini, and squash. Sauté for 5 minutes until onion is translucent.
4. Add tomatoes, green beans, remaining water, broth, oregano, salt, and pepper.
5. Simmer for 20-30 minutes to soften vegetables.
6. Add turkey and barley to soup. Heat through.
7. Top with optional parmesan cheese.

DID YOU KNOW? Barley is a good source of soluble fiber, which can help reduce the severity of diarrhea.



NUTRITIONAL DATA: Per serving: 260 calories, 10 grams fat, 2.5 grams saturated fat, 60 mg cholesterol, 640 mg sodium, 24 grams carbohydrate, 6 grams dietary fiber, 21 grams protein

Resources for Nutrition During Cancer Treatment

Cancer Support Community

www.CancerSupportCommunity.org

www.CancerSupportCommunity.org/TreatmentNutrition

www.CancerSupportCommunity.org/SurvivorNutrition

www.CancerSupportCommunity.org/Recipes

www.CancerSupportCommunity.org/Bone-Health

1-888-793-9355

American Cancer Society

www.cancer.org

www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active/nutrition.html

1-800-227-2345

American Institute for Cancer Research

www.aicr.org

www.aicr.org/patients-survivors

Download Living With Cancer Guide: <http://bit.ly/2DUXo20>

1-800-843-8114

National Cancer Institute

www.cancer.gov

www.cancer.gov/publications/patient-education/eating-hints

www.cancer.gov/about-cancer/treatment/side-effects/appetite-loss/nutrition-pdq

1-800-422-6237

The Oley Foundation (tube feeding information)

www.oley.org

https://cdn.ymaws.com/oley.org/resource/resmgr/Docs/TF_Troubleshooting_Guide_201.pdf

518-262-5079

Find An Oncology Registered Dietitian

Academy of Nutrition and Dietetics

www.eatright.org/find-an-expert

(click “Search by expertise” and then “Cancer/Oncology Nutrition,” and then enter your zip code to locate an RD who works with cancer patients)

The Cancer Support Community and its partners provide this information as a service. This publication is not intended to take the place of medical care or the advice of your doctor. We strongly suggest consulting your doctor or other health care professionals to answer questions and learn more.

Cancer Support Community Resources

The Cancer Support Community's (CSC) resources and programs are available free of charge. To access any of these resources below, call 888-793-9355 or visit www.CancerSupportCommunity.org.

Cancer Support Helpline® — Have questions, concerns or looking for resources? Call CSC's toll-free Cancer Support Helpline (888-793-9355), available in 200 languages Mon - Fri 9am - 9pm ET.

Frankly Speaking about Cancer® — Trusted information for cancer patients and their loved ones is available through publications, online, and in-person programs.

MyLifeLine — CSC's private, online community platform allows patients and caregivers to easily connect with friends and family to receive social, emotional, and practical support throughout the cancer journey and beyond. Sign up at www.MyLifeLine.org.

Open to Options® — Need help making a cancer treatment decision? Our trained specialists can help you create a list of questions to share with your doctor. Make an appointment by calling 888-793-9355 or by contacting your local CSC or Gilda's Club.

Services at Local CSCs and Gilda's Clubs — With the help of 170 locations, CSC and Gilda's Club affiliates provide services free of charge to people touched by cancer. Attend support groups, educational sessions, wellness programs, and more at a location near you. www.CancerSupportCommunity.org/FindLocation

Cancer Experience Registry® — Help others by sharing your cancer patient or cancer caregiver experience via survey at www.CancerExperienceRegistry.org.

Grassroots Network — Make sure your voice is heard by federal and state policy makers on issues affecting cancer patients and survivors by joining our Network at www.CancerSupportCommunity.org/become-advocate.

FRANKLY SPEAKING ABOUT CANCER: EATING WELL DURING TREATMENT PARTNER:



FRANKLY SPEAKING ABOUT CANCER: NUTRITION WAS MADE POSSIBLE WITH GENEROUS SUPPORT FROM:



This booklet is available to download and print yourself at www.CancerSupportCommunity.org/TreatmentNutrition. For print copies of this booklet or other information about coping with cancer, visit Orders.CancerSupportCommunity.org.

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