

Getting Proper Nutrition During Head and Neck Cancer Treatment



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How Can Good Nutrition Help You?

Eating well during treatment can help you:

- Stay stronger.
- Keep up your weight and maintain muscles.
- Improve effectiveness of radiation treatment.
- Cope with side effects better.
- Possibly lower your risk of having an infection.
- Heal and get well faster.

The most important thing is to eat or drink enough calories. This helps to prevent weight and muscle loss. See below for key nutrients.



Protein

- Protein helps to build muscles and strengthen the immune system.
- You need extra protein during treatment.
- Protein will help heal tissues and fight infection.
- Good protein choices include fish, chicken, lean red meat, eggs, dairy products, nuts, seeds, beans, lentils, peas and tofu.

Carbohydrates and Fats

- Carbs and fats give you the strength to stay active.
- They also help your organs work the right way.
- Good choices for carbs include fruits, vegetables, whole grains, beans and peas.
- Good choices for fats include olive oil, avocados, nuts and seeds.

Vitamins and Minerals

- Vitamins and minerals help your body work the right way.
- You can get vitamins and minerals from a balanced diet.

Water

- Water helps move nutrients, oxygen and waste products through and out of your body.
- It also protects your organs and joints.
- It helps control heart rate, blood pressure and temperature.
- It helps you cope with symptoms like nausea, constipation and fatigue.

How Can a Dietitian Help You?

A dietitian:

- Gives science-based recommendations for your nutrition needs.
- Helps you with special diets.
- Helps you deal with eating problems.
- Gives guidance on taking supplements.
- Reviews how foods, supplements and drugs may mix and act in unwanted ways.
- Helps manage tube feeding and IV nutrition.
- Counsels you to help lower the risk of your cancer coming back.



Your Care Team

Your care team includes healthcare experts who specialize in caring for people with cancer.

Head and Neck Surgeon

- Performs procedures and surgeries in the head and neck area.
- Gives medical care, such as coping with side effects.
- Makes referrals to other experts.

Medical Oncologist

- Treats cancer using chemotherapy, hormone therapy, immunotherapy, biological therapy and/or targeted therapy.
- Gives treatment recommendations; gives medical care, such as coping with side effects; and makes referrals to other experts.

Radiation Oncologist

- Treats cancer using radiation therapy
- Gives treatment recommendations; gives medical care, such as coping with side effects; and makes referrals to other experts.

Supportive Care Medicine Provider

- Helps to improve your quality of life by managing symptoms such as pain, nausea, secretions, constipation, low appetite, fatigue and emotional distress.

Dentist

- Treats teeth, gums and mouth.

Nurse Practitioner

- Gives medical care, such as coping with side effects, and makes referrals to other experts.

Nurse

- Gives assessments, medications and guidance for coping with side effects, and communicates with all providers.

Dietitian

- Gives medical nutrition therapy to boost nutritional status, cope with side effects and improve functional status.

Speech-Language Pathologist

- Teaches rehab skills and exercises to improve functional communication, voice and safe swallowing.

Social Worker

- Provides counseling to enhance coping skills surrounding diagnosis and treatment. Connects you with financial and community resources.

Chaplain

- Provides tools to improve inner strength for both religious or nonreligious points of view, such as finding meaning and purpose during the cancer experience.

Physical Therapist

- Gives treatment to keep or boost physical functioning, decrease pain, and prevent you from getting weak.



Contact Information

Name	Phone	Email
Surgeon		
Nurse Navigator		
Medical Oncologist		
Medical Oncology Nurse		
Radiation Oncologist		
Radiation Nurse		
Supportive Care Medicine Provider		
Dentist		
Dietitian		
Speech Therapist		
Social Worker		
Chaplain		
Physical Therapist		

Before Treatment Starts

Head and neck cancers can cause eating problems before treatment even starts. Eating well before treatment will help you do better during treatment.

- Eat or drink enough calories to keep up your weight.
- Eat or drink protein with each meal.
- Contact a dietitian if you have eating problems or have questions about nutrition.
- Contact a speech therapist if you have swallowing problems.



Supplements

- Check with your doctor before taking supplements. These include vitamins, minerals and herbs.
- Supplements may make treatment less effective. They can also mix with other medications and act in unwanted ways.
- Supplements may hurt your organs, including the heart, liver and kidneys.
- Do not use antioxidant supplements, such as:
 - Vitamins A, C and E
 - Carotenoids like beta-carotene, lycopene, lutein and zeaxanthin
 - Selenium
 - Zinc
 - Turmeric
 - CoQ10

Once Treatment Starts

Eating problems are common during head and neck cancer treatment. Eating well during treatment may boost how well you respond to treatment. It may also help prevent treatment breaks and hospital stays.

- Eat or drink enough calories to keep up your weight.
- Eat or drink protein with each meal.
- Drink enough fluids.
- Take prescribed medications to help with side effects, such as nausea, pain and constipation.
- Stay physically active if you can and if your doctor approves.

Mouth Care

Mouth care is vital during your treatment and healing process. It helps decrease side effects, such as mouth pain, dry mouth, thick saliva and taste changes.

- Rinse your mouth six to eight times daily, especially before and after eating.
 - Use a non-alcohol mouthwash, or
 - Make your own mouthwash with:
32 fl. oz. warm water
1 teaspoon baking soda
¾ teaspoon salt

Changing Food Texture

- You may notice side effects from radiation therapy two to three weeks after starting treatment.
- Side effects may worsen over time and peak one to two weeks after the end of treatment.
- You may need to change your food texture and liquid consistency so you get enough nutrition. (You do not need to change your diet until you have side effects.)
- It may help to drink high-calorie and high-protein shakes.
- A feeding tube can also help you get enough nutrition and hydration. This is vital if you are unable to keep up your weight. Contact your dietitian if you have any questions about a feeding tube.
- After treatment ends, keep following nutrition tips if you have any eating problems. Contact a dietitian with any nutrition-related questions or concerns.

How to Cope with Eating Problems

Poor Appetite

- Eat small meals and snacks throughout the day. Try eating within one hour of waking and then every two to three hours.
- Do not wait to feel hungry or skip meals.
- Make every bite count by choosing high-calorie and high-protein foods.
- Drink a high-calorie and high-protein shake or smoothie in place of a meal.

Nausea

- Take anti-nausea medications as prescribed. They are helpful if taken before meals.
- Do not skip meals. An empty stomach can make your nausea worse.
- Sip clear liquids throughout the day. Good choices include clear liquid protein drinks, broth, fruit juices, sports drinks, carbonated drinks like ginger ale, and herbal teas like ginger root tea.
- Try ginger chews if your mouth isn't sore.
- Do not lie down flat for 30 minutes after eating.

Mouth and Throat Pain

- Use a straw when drinking, if approved by your speech therapist.
- Choose soft, moist foods that are cold or lukewarm.
- Do not eat spicy or acidic foods, or foods with strong seasoning.



- Do not drink beer, wine or other alcohol.
- You can use L-glutamine powder during radiation therapy. Mix 10 grams with ½ cup lukewarm water, then swish and swallow. Use three times per day as needed.

Swallowing Problems

- Choose soft, moist foods that are easy to swallow.
- Do not eat foods that are coarse, dry, stringy or rough.
- Call your speech therapist or doctor if you are coughing after eating or drinking, or if food feels stuck when swallowing.

Soft Food Choices

Protein	<ul style="list-style-type: none">• Ground, chopped or pureed tender meat, poultry or fish• Creamy peanut butter (not chunky)• Casseroles• Scrambled eggs, quiche or omelet• Chicken, egg or tuna salad• Smooth, creamy soups• Beans and legumes, such as hummus, lentils, tofu and bean soups• Yogurt, ricotta, soft cheeses and cottage cheese
Grains	<ul style="list-style-type: none">• Softened breads (soaked in olive oil, soup or milk)• Cooked cereals, such as Cream of Wheat, Cream of Rice, and oatmeal• Dry cereal soaked in milk• Pasta or rice in butter, pesto or cream sauces• Macaroni and cheese
Vegetables	<ul style="list-style-type: none">• Soft, cooked or canned vegetables• Mashed potatoes or mashed sweet potatoes• Baked potatoes without skin• Pureed vegetable soups• Creamy vegetable soups
Fruits	<ul style="list-style-type: none">• Cooked or canned fruit• Bananas or ripe melons• Avocados• Blended fruits• Applesauce or fruit sauce blends• Baby food fruit pouches
Desserts	<ul style="list-style-type: none">• Ice cream, frozen yogurt, sherbet or sorbets• Custards or puddings made with whole milk

Shopping Tips

- Look for foods that are already pureed, such as yogurt, Cream of Wheat or Cream of Rice, applesauce, hummus, smooth guacamole, pureed vegetables, pudding, or custard.
- Look for foods that you can blend at home, such as premade soups, jarred peaches or canned pears.
- Look for liquids with calories, such as high-calorie protein shakes or smoothies, whole milk, chocolate milk, high-calorie non-dairy milk such as soy milk, and yogurt drinks.



Dry Mouth

- Sip 8-10 cups of fluids throughout the day.
- Rinse your mouth often with a non-alcohol mouthwash.
- Eat moist foods, such as fresh or frozen fruits, sorbets, soups and stews. Add sauces and gravies to foods to make them easy to swallow.
- If your mouth is not sore, try tart foods and drinks to increase saliva. Good choices include sugar-free lemon drops, sugar-free gum, lemonade, lemon sorbet and cranberry juice.
- Try dry mouth sprays, gels, lozenges and gum to help moisten your mouth.
- Use a humidifier at night.

Thick Saliva

- Sip 8-10 cups of fluids throughout the day.
- Swish and spit with club soda, carbonated water or diet ginger ale.
- Spit out thick saliva instead of swallowing.
- Ask your doctor about a home suction machine.

Taste Change

- Rinse your mouth before and after eating.
- Choose foods that are moist. Eat cool and smooth foods that don't have a strong smell.



FASS (Fat, Acid, Salt, Sweet) Technique

Too bland or flat	<ul style="list-style-type: none"> • Add sour foods, such as lemon juice, lime juice, vinegar and pickles*. • Add salt or soy sauce. • Add sweetness with maple syrup, agave nectar or other sweeteners. • Try adding strong flavors like BBQ sauce, ranch dressing, ketchup and peanut butter.
Too sweet or salty	<ul style="list-style-type: none"> • Add sour foods like lemon juice, lime juice, vinegar and pickles*.
Too sour or bitter	<ul style="list-style-type: none"> • Add sweetness with maple syrup, agave nectar or other sweeteners.
Too spicy	<ul style="list-style-type: none"> • Add fat, including butter, nut butter or olive oil. • Add sweetness with maple syrup, agave nectar or other sweeteners.
Tastes like metal	<ul style="list-style-type: none"> • Add fat, including butter, nut butter or olive oil. • Add sour foods like lemon juice, lime juice, vinegar and pickles*. • Add sweetness with maple syrup, agave nectar or other sweeteners.

*Do not eat sour foods if you have a sore mouth.

Constipation

- Drink at least 8-10 cups of fluids per day.
- Try hot drinks, including caffeinated beverages, hot cereals and high-fiber foods. Good choices include beans, whole grains, fruits and vegetables.
- Walking and light exercise can help. Talk to your doctor before starting an exercise program.

Poor Hydration

- Sip 8-10 cups of fluids throughout the day.
- Choose clear liquids like water, sparkling water and herbal tea.
- Choose liquids with electrolytes like Pedialyte, sports drinks, coconut water, broths, soups, fruit juices and vegetable juices.

Fatigue

- Keep ready-to-eat and easy-to-make foods on hand. Choose high-calorie, high-protein foods like ready-to-drink shakes.
- Try not to go for more than four to five hours without eating.
- Drink at least 8 cups of fluids per day.
- Keep naps to less than one hour so they will not affect your nighttime sleep or mealtimes.
- Stay as active as you can.
- Have others prepare food for you and leave meals in the refrigerator that you can eat later.
- When you are feeling stronger, prepare enough soups and entrees to give you leftovers that can be individually frozen for later.

Daily Nutrition Checklist

My nutrition goal this week is to: _____.

- ☐ I met my weekly nutrition goal.
- ☐ I weighed myself this morning.
- ☐ I met my calorie goal or increased my intake.
- ☐ I met my protein goal or increased my intake.
- ☐ I met my fluid goal or increased my intake.
- ☐ I rinsed my mouth before and after eating.
- ☐ I had a stool.
- ☐ My side effects are under control, or I spoke to my team if not controlled.

Daily Food and Symptom Record

Date: _____ Weight: _____

Calorie goal: _____ Protein goal: _____ Fluid goal: _____

Time	Food and drink	Amount	Calories, protein, fluids	Symptoms and medications
			_____ calories _____ g protein _____ mL fluids	
			_____ calories _____ g protein _____ mL fluids	
			_____ calories _____ g protein _____ mL fluids	
			_____ calories _____ g protein _____ mL fluids	
			_____ calories _____ g protein _____ mL fluids	
			_____ calories _____ g protein _____ mL fluids	
		Daily Total	_____ calories _____ g protein _____ mL fluids	

Medications to Cope with Eating Problems

Fill out the form below with your medications to cope with eating problems.

Side effect	Medication	Directions
Nausea		
Sore Mouth/Throat		
Dry Mouth		
Thick Saliva		
Thrush		
Hiccups		
Constipation		

High-Calorie, High-Protein Shake Ingredients

Liquid base	Extra calories	Extra protein	Flavorings
High-calorie, high-protein shake	Avocado	Nut butter or powdered nut butter	Fresh or frozen fruits
Whole milk*	Olive oil	Flaxseed, chia seeds, hemp seeds	Honey
Half-and-half*	Flaxseed oil	Greek yogurt*	Cocoa powder
Buttermilk*	Canned coconut milk	Cottage cheese*	Instant coffee
Heavy whipping cream*	Ice cream*	Protein powder	Jam or jelly
Coconut cream		Powdered milk*	Flavored syrups
Soy milk		Silken tofu	Hazelnut spread

*Or non-dairy choice



High-Calorie, High-Protein Smoothie Recipes

Direction: Add the ingredients listed below to a high-speed blender and blend until smooth.

Chocolate Banana Coconut Smoothie

Yields 16 fl. oz. | Calories: 800 | Protein: 41 g
Carbs: 55 g | Fiber: 10 g | Added Sugars: 0 g

- 1 cup whole milk (or non-dairy milk)
- 4 tablespoons canned coconut cream
- 1 scoop unflavored protein powder (or chocolate protein powder and leave out cacao powder)
- 2 tablespoons peanut butter
- 1 medium banana
- 1 tablespoon ground flaxseed
- 1 tablespoon cacao powder

Peaches and Cream Smoothie

Yields 16 fl. oz. | Calories: 790 | Protein: 38 g
Carbs: 58 g | Fiber: 6 g | Added Sugars: 0 g

- 1 cup whole milk (or non-dairy milk)
- 4 tablespoons canned coconut cream
- 1 scoop unflavored protein powder
- 2 tablespoons almond butter
- 2 cups jarred peaches

Strawberry Watermelon Juice

Yields 8 fl. oz. | Calories: 194 | Protein: 23 g
Carbs: 27 g | Fiber: 1 g | Added Sugars: 3 g

- 2 cups cubed seedless watermelon
- 1 scoop strawberry protein powder



