

Table 1. How Cancer Treatments Can Affect Eating

Cancer Treatment	How it Can Affect Eating	What Sometimes Happens: Side Effects
Surgery	Increases the need for good nutrition. May slow digestion. May lessen the ability of the mouth, throat, and stomach to work properly. Adequate nutrition helps wound-healing and recovery.	Before surgery, a high-protein, high-calorie diet may be prescribed if a patient is underweight or weak. After surgery, some patients may not be able to eat normally at first. They may receive nutrients through a needle in their vein (such as in total parenteral nutrition), or through a tube in their nose or stomach.
Radiation Therapy	As it damages cancer cells, it also may affect healthy cells and healthy parts of the body.	Treatment of head, neck, chest, or breast may cause: <ul style="list-style-type: none"> • Dry mouth • Sore mouth • Sore throat • Difficulty swallowing (dysphagia) • Change in taste of food • Dental problems • Increased phlegm Treatment of stomach or pelvis may cause: <ul style="list-style-type: none"> • Nausea and vomiting • Diarrhea • Cramps, bloating
Chemotherapy	As it destroys cancer cells, it also may affect the digestive system and the desire or ability to eat.	<ul style="list-style-type: none"> • Nausea and vomiting • Loss of appetite • Diarrhea • Constipation • Sore mouth or throat • Weight gain or loss • Change in taste of food
Biological Therapy (Immunotherapy)	As it stimulates your immune system to fight cancer cells, it can affect the desire or ability to eat.	<ul style="list-style-type: none"> • Nausea and vomiting • Diarrhea • Sore mouth • Severe weight loss • Dry mouth • Change in taste of food • Muscle aches, fatigue, fever
Hormonal Therapy	Some types can increase appetite and change how the body handles fluids.	<ul style="list-style-type: none"> • Changes in appetite • Fluid retention

Table 2. Examples of Clear Liquids

Bouillon	Fruit ices without milk	Strained citrus juice
Clear, fat-free broth	Fruit punch	Strained lemonade/limeade
Clear carbonated beverages	Honey	Strained vegetable broth
Consomme	Jelly	Tea
Cranberry/grape juice	Plain gelatin dessert	Water
Fruit-flavored drinks	Popsicles	
Fruit ices without fruit pieces	Sports drinks	

Table 3. Examples of Full-Liquid Foods

All fruit juices and nectars	Ice milk	Small amounts of strained meat in broth or gelatin
Bouillon, broth	Liquid meal replacements	Smooth ice cream
Butter/cream/oil/margarine	Milk, all types	Soft or baked custard
Carbonated beverages	Milkshakes	Strained lemonade/limeade
Cheese soup	Pasteurized eggnog	Strained or blenderized soup
Coffee/Tea	Plain cornstarch pudding	Thin fruit purees
Fresh or frozen plain yogurt	Plain gelatin desserts	Tomato juice
Fruit drinks	Potatoes pureed in soup	Tomato puree for cream soup
Fruit punch	Refined/strained cooked cereal	Vegetable juice
Honey/jelly/syrup	Sherbet	Water

Table 4. Quick & Easy Snacks

Applesauce	Cream soups	Nuts
Bread, muffins, and crackers	Dips made with cheese, beans, or sour cream	Peanut butter
Buttered popcorn	Fruit (fresh, canned, dried)	Pita bread and hummus
Cakes and cookies made with whole grains, fruits, nuts, wheat germ, or granola	Gelatin salads and desserts	Pizza
Cereal	Granola	Puddings and custards
Cheese, hard or semisoft	Hard-boiled and deviled eggs	Sandwiches
Cheesecake	Ice cream frozen yogurt, popsicles	Vegetables (raw or cooked)
Chocolate milk	Juices	Whole or 2% milk
Crackers	Milkshakes, "instant breakfast" drinks	Yogurt

Table 5. How To Increase Calories

Butter and Margarine

- Add to soups, mashed and baked potatoes, hot cereals, grits, rice, noodles, and cooked vegetables.
- Stir into cream soups, sauces, and gravies.
- Combine with herbs and seasonings, and spread on cooked meats, hamburgers, and fish and egg dishes.
- Use melted butter or margarine as a dip for seafoods and raw vegetables, such as shrimp, scallops, crab, and lobster.

Whipped Cream

- Use sweetened on hot chocolate, desserts, gelatin, puddings, fruits, pancakes, and waffles.
- Fold unsweetened into mashed potatoes or vegetable purees.

Milk and Cream

- Use in cream soups, sauces, egg dishes, batters, puddings, and custards.
- Put on hot or cold cereal.
- Mix with noodles, pasta, rice, and mashed potatoes.
- Pour on chicken and fish while baking.
- Use as a binder in hamburgers, meatloaf, and croquettes.
- Use whole milk instead of low-fat.
- Use cream instead of milk in recipes.
- Make hot chocolate with cream and add marshmallows.

Cheese

- Melt on top of casseroles, potatoes, and vegetables.
- Add to omelets.
- Add to sandwiches.

Cream Cheese

- Spread on breads, muffins, fruit slices, and crackers.
- Add to vegetables.
- Roll into balls and coat with chopped nuts, wheat germ, or granola.

Sour Cream

- Add to cream soups, baked potatoes, macaroni and cheese, vegetables, sauces, salad dressings, stews, baked meat, and fish.
- Use as a topping for cakes, fruit, gelatin desserts, breads, and muffins.
- Use as a dip for fresh fruits and vegetables.
- For a good dessert, scoop it on fresh fruit, add brown sugar, and refrigerate until cold before eating.

Salad Dressings and Mayonnaise

- Use with sandwiches.
- Combine with meat, fish, and egg or vegetable salads.
- Use as a binder in croquettes.
- Use in sauces and gelatin dishes.

Honey, Jam, and Sugar

- Add to bread, cereal, milk drinks, and fruit and yogurt desserts.
- Use as a glaze for meats, such as chicken.

Granola

- Use in cookie, muffin, and bread batters.
- Sprinkle on vegetables, yogurt, ice cream, pudding, custard, and fruit.
- Layer with fruits and bake.
- Mix with dry fruits and nuts for a snack.
- Substitute for bread or rice in pudding recipes.

**Dried Fruits
(raisins, prunes, apricots,
dates, figs)**

- Try cooking dried fruits; serve for breakfast or as a dessert or snack.
- Add to muffins, cookies, breads, cakes, rice and grain dishes, cereals, puddings, and stuffings.
- Bake in pies and turnovers.
- Combine with cooked vegetables, such as carrots, sweet potatoes, yams, and acorn and butternut squash.

- Combine with nuts or granola for snacks.

Eggs

- Add chopped, hard-cooked eggs to salads and dressings, vegetables, casseroles, and creamed meats.
- Make a rich custard with eggs, milk, and sugar.
- Add extra hard-cooked yolks to deviled-egg filling and sandwich spread.
- Beat eggs into mashed potatoes, vegetable purees, and sauces. (Be sure to keep cooking these dishes after adding the eggs because raw eggs may contain harmful bacteria.)
- Add extra eggs or egg whites to custards, puddings, quiches, scrambled eggs, omelets, and to pancake and French toast batter before cooking.

Food Preparation

- Bread meat and vegetables.
- If tolerated, saute and fry foods when possible, because these methods add more calories than do baking or broiling.
- Add sauces or gravies.

Table 6. How To Increase Protein**Hard or Semisoft Cheese**

- Melt on sandwiches, bread, muffins, tortillas, hamburgers, hot dogs, other meats or fish, vegetables, eggs, desserts, stewed fruit, or pies.
- Grate and add to soups, sauces, casseroles, vegetable dishes, mashed potatoes, rice, noodles, or meatloaf.

**Cottage Cheese/
Ricotta Cheese**

- Mix with or use to stuff fruits and vegetables.
- Add to casseroles, spaghetti, noodles, and egg dishes, such as omelets, scrambled eggs, and souffles.
- Use in gelatin, pudding-type desserts, cheesecake, and pancake batter.
- Use to stuff crepes and pasta shells or manicotti.

Milk

- Use milk instead of water in beverages and in cooking when possible.
- Use in preparing hot cereal, soups, cocoa, and pudding.
- Add cream sauces to vegetables and other dishes.

Nonfat Instant Dry Milk

- Add to regular milk and milk drinks, such as pasteurized eggnog and milkshakes.
- Use in casseroles, meatloaf, breads, muffins, sauces,

cream soups, mashed potatoes, puddings and custards, and milk-based desserts.

Commercial Products

- Use "instant breakfast" powder in milk drinks and desserts.
- Mix with ice cream, milk, and fruit or flavorings for a high-protein milkshake.

Ice Cream, Yogurt, and Frozen Yogurt

- Add to carbonated beverages, such as ginger ale or cola.
- Add to milk drinks, such as milkshakes.
- Add to cereal, fruit, gelatin desserts, and pies; blend or whip with soft or cooked fruits.
- Sandwich ice cream or frozen yogurt between cake slices, cookies, or graham crackers.
- Make breakfast drinks with fruit and bananas.

Eggs

- Add chopped, hard-cooked eggs to salads and dressings, vegetables, casseroles, and creamed meats.
- Add extra eggs or egg whites to quiches and to pancake and French toast batter.
- Add extra egg whites to scrambled eggs and omelets.
- Make a rich custard with eggs, high-protein milk, and sugar.
- Add extra hard-cooked yolks to deviled-egg filling and sandwich spreads.
- Avoid raw eggs, which may contain harmful bacteria, because your treatment may make you susceptible to infection. Make sure all eggs you eat are well cooked or baked; avoid eggs that are undercooked.

Nuts, Seeds, and Wheat Germ

- Add to casseroles, breads, muffins, pancakes, cookies, and waffles.
 - Sprinkle on fruit, cereal, ice cream, yogurt, vegetables, salads, and toast as a crunchy topping; use in place of bread crumbs.
 - Blend with parsley or spinach, herbs, and cream for a noodle, pasta, or vegetable sauce.
 - Roll banana in chopped nuts.
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Peanut Butter

- Spread on sandwiches, toast, muffins, crackers, waffles, pancakes, and fruit slices.
 - Use as a dip for raw vegetables, such as carrots, cauliflower, and celery.
 - Blend with milk drinks and beverages.
 - Swirl through soft ice cream and yogurt.
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Meat and Fish

- Add chopped, cooked meat or fish to vegetables, salads, casseroles, soups, sauces, and biscuit dough.
 - Use in omelets, souffles, quiches, sandwich fillings, and chicken and turkey stuffings.
 - Wrap in pie crust or biscuit dough as turnovers.
 - Add to stuffed baked potatoes.
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Beans/Legumes

- Cook and use peas, legumes, beans, and tofu in soups or add to casseroles, pastas, and grain dishes that also contain cheese or meat. Mash cooked beans with cheese and milk.

From Eating Hints For Cancer Patients by the National Institutes of Health National Cancer Institute

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