Guidelines

Calories
Boosting Protein
Taste Changes

Helpful Hints for Eating
# Table of Contents

- **Introduction** ........................................... 1
- **General Guidelines** ................................. 2
- **During Treatment** ................................. 3
- **Boosting Calories** ................................. 4
- **Boosting Protein** ................................. 5
- **Helpful Hints for Eating**
  - **Taste Changes** ................................. 7
  - **Dry Mouth, Sore Mouth, & Sore Throat** 8
  - **When You are Too Tired to Eat** .......... 8
  - **Cramps, Heartburn, and Bloating** ....... 9
  - **Nausea and Vomiting** ....................... 9
  - **Constipation** .................................... 10
  - **Diarrhea** ....................................... 10
  - **Loss of Appetite** .............................. 12
- **Potassium Rich Foods** ........................... 13
- **Recipes for Milkshakes and Smoothies** ...... 14
- **Flavoring Tips** .................................... 18
- **Use of Supplements** ............................. 19
Good nutrition is important to all of us. This booklet offers information and suggestions to minimize weight loss and deal with the nutritional effects of cancer and its treatment.

Eating and maintaining a sense of well-being are natural, basic instincts. It may be difficult for a patient with cancer to maintain an optimal nutritional status and sense of well-being. The disease and the treatment used to control the disease may cause nutritional problems.

Decreased food intake is the leading cause of protein and calorie deficiency. Development of inadequate protein and calorie intake in patients with cancer is caused by:

- Competition between cancer cells and normal cells for nutrients
- Increased demand for energy because of the cancer
- Change in the body's metabolism of carbohydrates, proteins, and fats

Loss of appetite or anorexia may occur because of:

- The disease process
- Complications of the disease
- Side effects of the treatment
- Psychological and emotional factors
During chemotherapy or radiation, the goal is weight maintenance.

Follow the Food Guide Pyramid as a guide for balance and variety.

The diet should provide ~ 11-16 calories per pound of ideal body weight and ~ 0.4-0.7 grams of protein per pound of ideal body weight.

A daily multivitamin with minerals is suggested to help meet recommended daily allowances, especially when meal intake is less.

Eat small, frequent meals with snacks between meals. Try to eat 4 to 6 times a day. Keep snacks available.

Try to eat a third of your daily calories and protein at breakfast, if you can tolerate eating early in the morning.

Try to avoid stress around mealtime.

Be aware of appealing to your sense of smell.

When possible, eat with family and friends.

Set an attractive table and try to eat a variety of foods, giving preference to what you like.

Eat calorie and protein packed foods.

Avoid your favorite foods when nauseated.

If lactose intolerant, try Lactaid® milk or pills, or you could also use soy milk, rice milk, or Vitamite 100®.

### General Guidelines

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## Suggested Calorie and Protein Intake

Nutrition During Cancer Treatment 2
As you are receiving treatment, nutrition problems may occur. Nutritional problems may be greater if combination treatment methods are used. Remember optimal protein and calorie intake is an important part of the treatment. Try to continue to eat, even if you do not feel well or are not hungry.

**Surgery:**

After surgery, your body needs more carbohydrates and protein. Carbohydrates help to meet the increased demands for energy. Protein helps with tissue repair.

**Radiation Therapy:**

Radiation therapy affects normal cells as well as the cancer cells in the treatment area. Treatment to any part of the gastrointestinal tract, head and neck, central chest area, abdomen and pelvis may result in nutritional problems. Saliva production and taste sensation may change. This results in less pleasure in eating and decreases the gastric secretions which help with digestion.

**Chemotherapy:**

Chemotherapy, like radiation therapy, affects normal cells as well as cancer cells. Treatment side effects may cause dry mouth, oral irritation, sore throat, inflamed esophagus, infection, diarrhea, constipation, nausea and vomiting. Adequate protein and calorie intake is essential for repair of normal cells.

**Psychological And Emotional Factors:**

The presence of depression, confusion, anxiety, insomnia and pain may also significantly change the appetite and result in decreased nutrient intake.
Boosting Calories

Calories

Foods can increase the calories in your diet without significantly increasing the volume of food eaten:

The addition of 500 extra calories each day may cause a 1 pound weight gain per week.

One Teaspoon of Butter or Margarine adds 45 calories. Stir butter into soups, noodles, rice, and sauces. Drizzle melted butter over cooked cereal or vegetables. Heat bread and rolls so that extra butter is absorbed. All fats are a concentrated source of calories. Use them liberally in preparing and serving foods.

One Tablespoon of Mayonnaise offers 100 calories. Use mayonnaise in salads, deviled eggs, and as a spread for sandwiches.

Two Tablespoons of Salad Dressing offers 90 calories. Use on salads, other vegetables, and pizza.

Two Tablespoons of Sour Cream provide 60 calories and can be served over vegetables or fruits and in sauces or dips.

Two Tablespoons of Heavy Cream contain 100 calories. Use as a topping for ice cream; stewed, canned, or fresh fruits; and desserts. Use in coffee, tea, hot chocolate, soups, cheese sauces, cereals, and milkshakes.

Two Tablespoons of Powdered Nondairy Creamer give 60 calories and can be added to soups, sauces, milkshakes, or hot cereal.

Concentrated Sweets include sugar, honey, brown sugar, syrup, candy, marshmallow topping, jams, jellies, pies, cakes, cookies, doughnuts, sweet rolls, and ice cream.

Nonperishables such as nuts, dried fruits, candy and popcorn should be kept close at hand in the living room or at the bedside.

Sauces and Gravies add concentrated calories to vegetables and meats.

Breaded Meat, Fish, and Chicken are higher in calories than roasted.

Fresh Fruits can be made higher in calories with the addition of dressings, sugar, Polycose®, honey, marshmallows, or whipped cream.
Without adequate protein, your body’s ability to build and repair tissues and support immune function will be impaired. Make a special effort to include the following high protein foods in your diet.

**Powdered Milk:** 2 Tbsp. provide 5.4 grams protein. This is one of the most convenient protein boosters, as it can easily be added to puddings, gravies, sauces, hot cereals, egg dishes, home baked items, custards and milk based beverages. Powdered milk can fortify whole milk significantly.

<table>
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</tr>
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<td>1 cup whole milk</td>
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<td>1 quart whole milk</td>
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<tr>
<td>1/3 cup powdered milk</td>
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Mix ingredients until smooth, using a blender for the quart size recipe. Flavorings can be added. Chilling improves flavor. Use "double" milk in place of water or regular milk in recipes.

**Instant Breakfast Powder:** When mixed with 1 cup whole milk, it provides 280 calories, 15 grams protein. One package mixed with "double milk" gives 352 calories, 23 grams protein.

**Cheese** provides 7 grams protein for a 1 oz. slice. Grated cheese can be added to sauces, vegetables, casseroles, french bread, omelets, english muffins, sandwiches, desserts, dips and spreads. Sample many varieties of cheeses. Arrange a cheese platter for snacking. Store grated cheese in refrigerator for convenience.

**Eggs** offer 7 grams of high quality protein each. Finely chopped, hard cooked eggs can be added to cream soups, sauces, salads, and casseroles. Choose desserts or baked goods made with eggs. Many dessert recipes taste better with the addition of an extra egg.

**Diced and Ground Meats** contain 7 grams of protein per ounce. Add them to soups, casseroles, eggs, salads, sauces, and vegetables. Ham, sausage, or bacon bits are good flavoring additions.

**Peanut Butter** can be added to warm breads, crackers, pancakes, waffles, muffins, cookies, quick bread and dessert recipes, celery sticks, and apples. 2 Tbsp. contain 7.5 grams of protein.

**Soy Flour** can be added to the flour called for in bread, cake, or cookie recipes. It should be used sparingly, as it has a strong flavor. 2 Tbsp. contain 6 grams of protein.

**Tofu**, an oriental soybean curd, is available in many supermarkets in the produce section. It has bland flavor but is an excellent source of protein. One 2-inch square gives you 9 grams of protein, 85 calories.
**Boosting Protein**

**High Protein Snack Suggestions:**

- Pimento Cheese
- Egg Salad
- Yogurt
- Nuts or Trail Mix
- Puddings
- Vienna Sausages
- Open-faced Sandwiches
- Peanut Butter

- Chicken Salad
- Cottage Cheese
- Pate´
- Mini Pizza
- Nachos
- Deviled Eggs
- Cheese Spreads
- Buttermilk and Cornbread

- Ham Salad
- Cheese Platter
- Cereal and Milk
- Custard
- Cheese Dip
- Sausage Roll-ups
- Bean Dip
- Tuna Salad

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**Sample Menu**

**Breakfast**

- 1 orange or 1/2 cup juice
- 1/2 cup oatmeal with margarine
- 1 scrambled egg
- 1 slice buttered toast
- 1 cup whole milk
- 1 cup hot cocoa

**Lunch**

- 2-3 oz. baked chicken
- 1/2 cup buttered rice
- 1/2 cup buttered green beans
- 1 cup tossed salad/dressing
- 1 dinner roll w/margarine
- 1/2 cup custard
- lemonade

**Dinner**

- 2-3 oz. roast beef
- 1 baked potato
- 1/2 cup buttered broccoli
- 1 slice bread w/margarine
- 1/2 cup mixed fruit
- 1 slice cake
- 1 cup whole milk
- iced tea

**Afternoon Snack**

- 2 Tbsp. peanut butter
- 6 - 12 crackers

**Bedtime Snack**

- 2 slices bread
- 2 Tbsp. pimento cheese
- 1 cup milkshake
Taste Changes

You may experience taste changes and dry mouth during treatment. Sometimes red meat tastes bitter and other foods may have a metallic taste.

- Try using plastic ware instead of silverware and avoid cooking in metal pots and pans to lessen the metallic taste.
- Taste changes usually disappear after treatment.

Poor sense of taste

- Use your imagination and creativity. Experiment with adding fruits and sauces to desserts such as ice cream, pudding and custards to make them look more appealing.
- Serve warm food. The sense of smell is stronger than taste. The aroma of hot foods, or food cooking, may stimulate the flow of saliva and gastric secretions.
- If cold foods are preferred, eat foods that are high in protein:
  - Gelatin salads with cottage cheese or cream cheese
  - Ice cream
  - Fresh fruits and vegetables with peanut butter or cheese
  - Commercial diet supplements such as Ensure® and Boost® can be frozen and eaten as a dessert
- Experiment with adding new spices to foods, such as lemon, mint, and basil. However, increasing the amount of a spice will not increase the taste sensation and may actually irritate the mouth, so use with caution.
- Try tart foods, such as oranges, lemons and grapefruit. Be sensitive to your sense of smell.
- Substitute other protein sources for meat. See Boosting Protein.
Dry Mouth, Sore Mouth, and Sore Throat

• Avoid alcoholic beverages or mouthwashes with a high alcohol content. These may cause dryness of the mouth.

• Drink plenty of liquids, 8-12 cups daily.

• Moisten foods with liquids or gravies.

• Rinse mouth frequently with water or eat ice chips.

• Try using artificial saliva which is available over-the-counter at drug stores.

• Using a humidifier may decrease dry mouth problems.

• Avoid coarse, rough, or dry foods.

• Avoid spicy foods or foods high in acid.

• Cold foods, such as custard, yogurt, cottage cheese, milkshakes, ice cream, frozen yogurt or pudding, and popsicles may be soothing to the mouth and throat.

• Tilt head back and forth while eating to help with swallowing. Thickened liquids are easier to swallow than thin liquids. A commercial thickener can be added to liquids.

• Avoid smoking as it may irritate the mouth and throat.

• Chew sugar free gum or suck on hard candy to increase secretion of saliva.

• Moisten the lips with lip balms.

• Rinse mouth with lemon water before meals to cleanse the palate.

When You are too Tired to Eat or Prepare Foods

• Eat well during “up” times.

• Prepare and freeze meals ahead of time whenever possible.

• Use convenience, ready-to-eat, easily prepared food.

• Use disposable dishes, pans, and foil containers.

• Let friends and relatives help.

• Try Meals on Wheels or similar services. Talk with a social worker about community resources that are available.
Other Ideas for . . .

Cramps, Heartburn, and Bloating:

• Eat slowly in a relaxed atmosphere.
• Eat small meals.
• Avoid gas forming foods: cabbage, cauliflower, broccoli, onions, nuts, beer, cola, garlic, too many sweets, and cooked dried beans.
• Avoid fried, greasy, or heavily spiced foods.
• Do not lie down until 2 hours after eating.
• Take chilled antacids 1 hour before and 3 hours after meals, at bedtime, and upon waking in the middle of the night.
• Avoid chewing gum and using a straw. This can help prevent gas formation.

Nausea and Vomiting:

• Eat 6 small meals daily.
• Chew thoroughly and slowly.
• Take prescribed antinausea medicine as directed by your doctor.
• Avoid favorite foods during times of nausea to avoid developing a negative connotation with them.
• You may need to drink liquids between meals rather than with meals.
• Rest after meals, and raise your head to at least 4” higher than your feet.
• Try food served either cold or at room temperature.
• Avoid spicy, strong smelling, fried, or greasy foods.
• Dry, salty foods may help. Try toast or crackers before getting out of bed.
• Note specific times nausea and vomiting occurs, and avoid eating at those times.
• Get fresh air, and wear loose clothing.
• Avoid unpleasant odors.
Other Ideas for . . .

**Constipation**

- Eat more high fiber foods as tolerated, such as whole-wheat bread, bran, fruits, vegetables, nuts, and popcorn.
- Try a fiber supplement added to water or juice daily.
- Drink up to 3 quarts of caffeine free fluid a day, unless told otherwise.
- Try prune juice or hot lemon water early in the morning or in the evening.
- Increase physical activity as tolerated, such as walking.
- Stool softeners, laxatives, suppositories and/or enemas may be necessary. Contact your doctor if needed.
- Pain medicines can contribute to constipation. Discuss this with your doctor.

**Diarrhea**

- Report diarrhea (3 or more watery stools daily) to your nurse or doctor. Keep a record of the number, amount, and characteristics of the bowel movements.
- Eat a clear liquid diet if diarrhea becomes severe. Do not continue the liquid diet for more than 2 days without contacting your doctor.
- Eat small meals 6 times daily.
- Eat soft, easily digestible, high protein foods such as
  - cottage cheese, mild processed cheese, eggs, custard, smooth peanut butter
  - fish, poultry, or meat that is baked, broiled or roasted
  - cooked cereals such as cream of wheat or rice
  - bananas, applesauce, peeled apples (apples contain natural pectin which is an antidiarrheal agent), apple juice, grape juice and avocados
  - white bread and toast
  - macaroni and noodles
  - baked, broiled, or mashed potatoes
  - cooked vegetables that are mild, such as asparagus tips, green and wax beans, carrots, peas, spinach, and squash
Diarrhea (continued)

- Eliminate foods which may be irritating and/or stimulating to the gastroinestinal tract.
  - whole grain breads and cereal
  - nuts, seeds, coconut
  - fried, greasy or fatty foods
  - fresh and dried fruits and fruit juices (with the exception of those mentioned above)
  - raw vegetables
  - rich pastries
  - popcorn, potato chips, pretzels
  - strong spices and herbs, such as chili powder, pepper, curry and garlic, horseradish, olives, pickles and relishes

- Eat more high potassium foods (refer to Page 13). Potassium is lost in large amounts with diarrhea.

- Yogurt may replace some of the beneficial bacteria needed by the gut.

- Drink at least 3 quarts of fluid each day.

- Avoid carbonated and alcoholic beverages.

- Adding nutmeg to foods may decrease the motility of the gastrointestinal tract.
Loss of Appetite:

- Eat small meals 6 times daily if large ones are overwhelming to you.
- Eat meals with friends or family.
- Make meal time special by using a variety of colors and textures in foods.
- Try drinking a glass of wine or beer before meals, with your doctor’s permission.
- Eat in a quiet, relaxed atmosphere. Listen to soft music while you eat.
- Remember that food is an important part of your treatment. You may have to make yourself eat.
- Appetite stimulants can be prescribed - discuss with your doctor.
- Breakfast may be the time when your appetite is at its best. Try to eat a substantial amount of nutritious foods when your appetite is good.
- Exercise before meals. Range of motion exercises and walking are beneficial forms of exercise. Five to ten minutes of exercise one half hour before a meal is usually a tolerable exercise plan and can improve your outlook and your digestive processes. Don’t overdo it!
- Nutritional Supplements
  - Nutritional supplements may be used to help maintain nutritional status.
  - Drink them in a container other than the can.
  - You may experience a metallic taste because of the disease or chemotherapy, and the liquid may pick up the taste of the metal can.
  - Sip the nutritional supplement slowly between meals.
Potassium Rich Foods

High Potassium Foods

• Potassium is an essential body electrolyte.
• Eating foods that are high in potassium will help replace lost potassium.
• The loss of potassium may occur if you take high blood pressure medicines or if you have excessive diarrhea or vomiting.
• The following foods are all good sources of potassium. Please review these foods with your dietitian.

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Other

Beans (legumes)                                
Cheese    
Chocolate         
Meat
Recipes for Milkshakes
& Smoothies

Boost® or Ensure® (nutritional supplement) may be substituted for milk in many recipes to increase calories and protein. TIP: Before adding other ingredients, mix Boost®/Ensure® until frothy.

**High Protein Chocolate Milk**

3/4 cup whole milk
1/4 cup powdered nonfat dry milk
1 Tbsp. chocolate syrup

Mix well and chill.

**High Protein Malted Milk**

2/3 cup whole milk or chocolate milk
1/4 cup powdered nonfat dry milk
3 Tbsp. malted milk powder

Mix well and chill.

**High Protein High Calorie Milk Drink**

1 cup whole milk or “double milk”
1 package of instant breakfast powder (any flavor)

Mix well and chill.

**Hot Cocoa**

1 cup whole milk
2 Tbsp. powdered nonfat dry milk
1 Tbsp. instant cocoa mix
Few drops vanilla

Mix well and heat.

**Chocolate Mint Milkshake**

1 cup vanilla ice cream
1 package instant breakfast (chocolate)
4 oz. half and half
1/4 tsp. mint/peppermint extract

Mix in blender and chill.
**Banana Nut Milkshake**

1 cup vanilla ice cream  
1 package vanilla instant breakfast  
4 oz. half & half  
1/8 tsp. black walnut extract  
1/2 ripe banana

Mix in blender and chill.

**Peppermint Milkshake**

1 cup vanilla ice cream  
1 package vanilla instant breakfast  
4 oz. half & half  
1/4 tsp. peppermint extract  
2 drops red food coloring

Mix in blender and chill.

**Raspberry Fluff**

1 carton raspberry yogurt  
4 oz. half & half  
2 oz. cranberry juice

Mix in blender.

**Pineapple-Orange Fluff**

1 carton pineapple yogurt  
1/2 cup orange sherbet

Mix until smooth.
Sallie’s Original Shakes

**Basic Shake**

1 can vanilla Boost®
1 carton vanilla yogurt
1/2 cup whole milk
* add ingredients listed below for variations

**Cookies and Cream**

1/2 cup cookies and cream ice cream
vanilla ice cream and any flavor cookies (2-3) can be used in place of cookies and cream
935 calories; 32 grams protein

**Orange Cream**

1 cup orange sherbet
May increase amount according to taste
815 calories; 22 grams protein

**Candy Bar Shake**

1 king size Snickers or Butterfinger ice cream bar
665 calories; 66 grams protein

**Strawberry Banana**

1 can strawberry Boost®
1 carton strawberry/banana yogurt
1-1/2 cup vanilla ice cream
Mix in blender.
430 calories; 13 grams protein

**Orange/Banana Shake**

1 can vanilla Carnation Instant Breakfast®
1 cup orange sherbet
1 cup vanilla ice cream
1 banana
1/2 cup whole milk
Mix in blender.
815 calories; 22 grams protein
Berry Good Smoothie
1 can strawberry Boost® or vanilla Boost®
1 carton strawberry yogurt
3 frozen fruit bars (any flavor) or 1 c frozen berries
Mix in blender. 650 calories; 20 grams protein

Peach Shake
1 can vanilla Boost®
1 carton peach yogurt
1/2 cup vanilla ice cream
1/2 cup whole milk
575 calories; 23 grams protein

Chocolate Lovers
1 can chocolate Boost®
2 cup Dutch chocolate ice cream
1/2 cup whole milk
540 calories; 20 grams protein

All recipes were tested with Boost ® nutritional supplement, Blue Bell® ice cream, and Yoplait® yogurt. Equivalent nutritional supplements may be substituted for Boost.®

Frozen Treats
Make juice pops by pouring Boost Breeze® drink into ice pop molds or small cups inserted with wooden skewers.

You can also make fudge pops -- just use your favorite variety of chocolate Boost® drink instead of Boost Breeze®.
In the mood for a new flavoring twist to add to your nutritional supplement? Try one of the suggestions below!

Add the following flavorings to 8 ounces of vanilla nutritional supplement.

**Extracts**
Add 2-3 drops of your favorite flavor, or blend flavors to make your own combination. Some examples are
- Almond
- Anise
- Banana
- Black Walnut
- Coconut
- Lemon
- Maple
- Orange

**Syrups**
Stir in 2 Tbsp of syrup for a sweeter flavor. Try
- Blackberry
- Blueberry
- Butterscotch
- Raspberry
- Strawberry
- Maple

**Puddings**
Stir in 1 tsp dry pudding mix for a subtle, new flavor. Try
- Banana
- Butterscotch
- Coconut
- Lemon
- Pistachio

**Other Quick Ideas**
**Grasshopper drink** - Add 1/4 tsp mint extract to 1 can chocolate drink.
**Peanut Butter drink** - Blend 1 can of vanilla drink with 1 tsp peanut butter.
**Strawberry Soda** - Mix 1 can strawberry drink with 6 oz (1/2 can) lemon-lime carbonated soda.
Use of Supplements

Whole foods -- such as fruits, vegetables and whole grains -- provide a complex combination of vitamins, minerals, fiber, and other substances that promote health. With added amino acids, antioxidants, enzymes, and herbs, it might seem like dietary supplements could easily replace food as your source of nutrients. But this isn’t the case.

Vitamin and mineral supplements

Your body needs vitamins and minerals in small but steady amounts for normal growth, function, and health. Together, vitamins and minerals are called micronutrients. Your body cannot make most micronutrients. You must get them from the foods you eat or, in some cases, from supplements.

However, you may benefit from taking a supplement if

• you have trouble getting enough nutrients
• your body cannot efficiently use all of the vitamins it needs

To use supplements safely, understand your nutritional needs, how to choose a supplement, and when to take dietary supplements.

Some people with cancer take large amounts of vitamins, minerals, and other dietary supplements in an effort to enhance their immune systems or even destroy cancer cells. Some of these substances can be harmful. In fact, large doses of some vitamins and minerals may reduce the effectiveness of chemotherapy and radiation therapy.

If you decide to take a vitamin or mineral supplement, consider these factors:

• **Check the supplement label.** Read it carefully. Product labels can tell you
  - ingredients included,
  - serving size (capsule, packet or teaspoonful)
  - amount of nutrients per serving
  - directions for safe use
  - tips for storage
  - name and address of the manufacturer, packer or distributor where you can write if you need more information on a particular product.

• **Avoid supplements that provide “megadoses.”** In general, choose a multivitamin-mineral supplement that provides 100% Daily Value (%DV) of all the vitamins and minerals. The exception to this is calcium. You may notice that calcium-containing supplements do not provide 100%DV. If they did, the tablets would be too large to swallow.
• **Look for “USP” on the label.** This ensures that the supplement meets the standards for strength, purity, disintegration, and dissolution established by the testing organization, U.S. Pharmacopeia (USP).

USP has tested and verified the ingredients, product, and manufacturing process. This assures that the supplement passed the following five important quality tests:

1. It contains the ingredients stated on the label.
2. It has the declared amount of ingredients.
3. It will disintegrate or dissolve to release nutrients for absorption into your body.
4. It has been screened for harmful contaminants such as pesticides, bacteria, and heavy metals.
5. It has been made using safe, sanitary, and well-controlled procedures.

**USP does NOT test the dietary supplement for overall safety or health claims.**

• **Beware of gimmicks.** Synthetic vitamins are usually the same as so-called “natural” vitamins. “Natural” vitamins usually cost more. Do not give in to the temptation of added herbs, enzymes, or amino acids. They primarily add cost.

• **Look for expiration dates.** Supplements can lose potency over time, especially in hot and humid climates. If a supplement does not have an expiration date, do not buy it. Expired supplements should be thrown away.

• **Store all vitamin and mineral supplements safely.** Store them in a dry, cool place. Avoid hot, humid storage locations, such as the bathroom.

• **Take as directed.** Multivitamins come in regular tablets, chewable tablets, capsules, and oral liquid. Take your multivitamin and mineral supplement with food.

• **Play it safe.** Before taking anything other than a standard multivitamin-mineral supplement of 100%DV or less, check with your doctor, pharmacist or a registered dietitian. High doses of some vitamins or minerals may cause health problems:
  - High doses of vitamin B-3 (niacin) can result in or worsen liver problems
  - Too much vitamin A over time may cause liver problems or weaken bones in women.
  - Supplements may interfere with your medicines.
  - Do not use Vitamin E when taking blood thinning products, unless approved by your doctor.
Antioxidants

Antioxidants protect the body’s cells from damage caused by free radicals. Examples of antioxidants include

- vitamin C
- vitamin E
- beta carotene
- selenium

Fruits and vegetables are good sources of antioxidants. Do not take large doses of antioxidant supplements while taking chemotherapy or radiation therapy. Talk with your doctor to determine the best time to take antioxidant supplements.

Herbs

Herbs have been used to treat disease for hundreds of years. Today, herbs are found in a variety of products such as pills, liquid extracts, teas, and ointments. While many of these products are harmless and safe to use, others can cause severe and harmful side effects. They can also interfere with proven cancer therapies including chemotherapy, radiation therapy, and recovery from surgery. If you are interested in using products containing herbs, talk with your doctor, pharmacist, or dietitian first.

Phytochemicals

Phytochemicals refer to a wide variety of compounds produced by plants. Some of these compounds protect plants against insects or perform other essential functions. Some have either antioxidant or hormone-like actions in plants, as well as, in people who eat them. Eating vegetables and fruits reduces cancer risk. Although researchers are looking for specific components responsible for the beneficial effects, no evidence has shown that phytochemicals taken as supplements are as beneficial as the fruits, vegetables, beans, and grains from which they are extracted.