



# Survivorship:

## Nutrition and Physical Activity

### Guidelines for Cancer Survivors

THE UNIVERSITY OF TEXAS  
MDAnderson  
~~Cancer~~ Center

Making Cancer History®



# Nutrition and Physical Activity Guidelines for Cancer Survivorship

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## To the patient and caregiver

This booklet is for cancer survivors. If you have questions about the information in this booklet, please ask your health care team.

Nutrition plays a big part in a healthy lifestyle after cancer treatment. A healthy lifestyle can:

- Reduce your risk of cancer (new or recurrence)
- Help you lower your risk for heart disease
- Give you more energy
- Lessen feelings of sadness and improve your mood

## Understand nutrition research

With ongoing research, we are starting to see more specific guidelines for cancer survivors. This booklet will discuss evidence-based lifestyle choices that can help reduce cancer risk.

Most experts agree that survivors should eat the same diet that is recommended to reduce cancer. This may help prevent a cancer from coming back or another type of cancer from occurring. There are many reasons why this makes sense:

- As a cancer survivor, you may have a higher risk of:
  - a second type of cancer
  - osteoporosis
  - obesity
  - heart disease
  - diabetes
  - problems performing daily activities
- Nutrition and lifestyle changes for cancer prevention are similar to the guidelines for general good health and well-being. They offer overall health benefits in preventing disease.
- Certain foods contain nutrients which may help fight cancer.
- Research has shown that excess weight increases the risk for up to 13 cancers, including colorectal, breast (post-menopausal), endometrial, esophageal, pancreatic, gall bladder, kidney and liver. Eating healthy foods is one way to help avoid excess weight.

## **American Institute for Cancer Research (AICR) Guidelines for cancer survivors recommendations to reduce your cancer risk**

The American Institute for Cancer Research (AICR) is a large American cancer research organization. Based on their research, they have published a list of guidelines to help people reduce their risk of cancer. See the guidelines below to think about changes you can make to live healthier. Use this list to set a goal to help you live a healthier life. The goal can be small however, make sure it is specific. As time goes on, you can set more goals. This booklet will teach you important changes you can make to be healthier.

1. Be as lean as possible without becoming underweight.
2. The American College of Sports Medicine specifically recommends:
  - Be physically active for at least 150 minutes of moderate aerobic exercise each weekOR
  - 75 minutes of vigorous aerobic exercise each week or some combination of both vigorous and moderate aerobic exercise.
3. Avoid sugary drinks, and limit consumption of energy-dense foods (particularly processed foods high in added sugar, low in fiber or high in fat).
4. Eat more of a variety of vegetables, fruits, whole grains and legumes such as beans.
5. Limit consumption of red meats (such as beef, pork and lamb) and avoid processed meats.
6. It is best to avoid alcohol. If consumed at all, limit alcoholic drinks to 2 for men and 1 for women a day.
7. Limit consumption of salty foods and foods processed with salt (sodium).
8. Do not rely on supplements to protect against cancer.

And, always remember, do not smoke or chew tobacco.

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## Reducing risk with food

Phyto is Greek for “plant.” Phytochemicals are found in plant sources of food and play a vital role in a healthy diet.

Phytochemicals are plant chemicals that promote health. They are found in fruits, vegetables, legumes, nuts, seeds, whole grains, herbs and spices. They add to the smell, color and flavor of the plant.

Phytochemicals play a major role in reducing cancer risk. Though we are still learning about how they fight cancer, early research hints that they may be a frontline defense.

Antioxidants are one type of phytochemical; they protect cells from damage that can turn into cancer. Cell damage can be caused by:

- Aging
- Pollution
- Radiation
- Sunlight
- Tobacco
- Herbicides
- Alcohol
- Injury

The best way to get phytochemicals in your diet is to eat plant-based foods. Examples of foods containing phytochemicals are listed on page 7.

The key is to eat fruits and vegetables in a variety or mix of colors.



## Phytochemicals

Food	Phytochemical	Potential Benefits
Dark leafy greens (spinach, kale, romaine lettuce, collard greens)	<ul style="list-style-type: none"><li>• Carotenoids (lutein, zeaxanthin)</li><li>• Flavonoids</li><li>• Fiber</li><li>• Folate</li></ul>	<ul style="list-style-type: none"><li>• Carotenoids act as antioxidants; may slow growth of certain types of cancer cells (breast, skin, lung, stomach); may improve immune response</li><li>• Fiber may reduce the risk of colorectal cancer</li></ul>
Berries (strawberries, raspberries, blueberries)	<ul style="list-style-type: none"><li>• Ellagic acid</li><li>• Flavonoids</li><li>• Anthocyanosides</li><li>• Vitamin C</li><li>• Fiber</li></ul>	<ul style="list-style-type: none"><li>• Act as antioxidant</li><li>• Slow the reproduction of cancer cells</li><li>• Inhibit the development of some cancers</li></ul>
Broccoli and cruciferous vegetables (brussels sprouts, cabbage, cauliflower)	<ul style="list-style-type: none"><li>• Indoles</li><li>• Isothiocyanates</li><li>• Beta-carotene</li><li>• Potassium</li></ul>	<ul style="list-style-type: none"><li>• Act as antioxidant</li><li>• Help repair damaged DNA</li><li>• Block the activity of hormones that impact the development of some cancer</li></ul>
Legumes (dry beans, peas, lentils)	<ul style="list-style-type: none"><li>• Inositol</li><li>• Protease inhibitors</li><li>• Steroids</li></ul>	<ul style="list-style-type: none"><li>• Inhibit cancer cell growth</li><li>• Prevent tumors from releasing compounds that can destroy nearby healthy cells</li><li>• Lessen inflammation (which may support cancer growth)</li></ul>
Tomatoes	<ul style="list-style-type: none"><li>• Lycopene</li></ul>	<ul style="list-style-type: none"><li>• Antioxidant</li><li>• May protect against prostate cancer</li></ul>
Apples (with skin)	<ul style="list-style-type: none"><li>• Quercetin</li><li>• Flavonoids</li><li>• Vitamin C</li><li>• Fiber</li></ul>	<ul style="list-style-type: none"><li>• Anti-inflammatory</li><li>• Antioxidant</li></ul>

For more information and other examples of cancer fighters in your food, please view the American Institute for Cancer Research website at [www.aicr.org/foods-that-fight-cancer](http://www.aicr.org/foods-that-fight-cancer).

## Eat healthy foods

Plant-based foods are a healthy choice and you should aim to include more of these foods in your diet. Select fresh or frozen foods. Canned vegetables and fruits have fewer nutrients and often have added salt or sugar. Plants provide vitamins, minerals, antioxidants, phytochemicals and fiber. Each of these is essential to good health. Examples of plant-based foods include:

- Vegetables
- Fruits
- Beans, peas and soy beans
- Whole-grain breads and pasta
- Nuts and seeds
- Canola oil and olive oil

When adding plant-based foods to your meals, try to fill two-thirds of your plate with these foods and follow these tips:

- Aim for at least 2 1/2 cups of vegetables and fruits in your diet per day.
  - Eat vegetables and fruits at each meal with the majority being vegetables
  - Snack on vegetables and fruits
- Limit fried food
- Some phytonutrients are enhanced with cooking, while others are destroyed. Include both raw and cooked plant-based foods to ensure a variety. Eating food in its whole form is recommended over juicing. Juicing removes fiber which has many benefits for cancer prevention, weight management and health. If you would like to drink some of your plant-based foods, choose blending.
- Choose whole grains, rather than processed (refined) white flour or white rice.
- Eat at least 25 grams of fiber per day. Good sources of fiber include quinoa, brown rice, whole wheat, whole oats, fruits, vegetables, beans, peas, nuts and seeds.
- Many plant-based foods are a good source of protein. These include beans, lentils and quinoa. Use these to make a “meatless” meal once or twice a week.

## **Animal protein**

The American Institute of Cancer Research (AICR) recommends limiting red meat (such as beef, pork, bison, venison and lamb) to less than 18 ounces per week to reduce cancer risk. This would be the same as eating a 3-ounce portion (about the size of a deck of cards), 6 days a week. Other forms of animal protein include:

- Milk, yogurt and cheese
- Eggs, fish and poultry

It is also recommended to:

- Avoid processed meats, which are cured, smoked or preserved. Examples include meats commonly found at the deli counter, packaged lunch meats, pepperoni and ham.
- Use low-fat cooking methods. Stir fry, bake, roast, broil and boil. Do not fry meats. Fill your plate with less than one-third animal protein.





## Essential fats

These are healthy fats that are found only in food. Our bodies do not produce essential fats. Omega-3 and omega-6 fats are required to sustain life. Omega-3 fats help reduce inflammation in the body. Omega-6 fats increase inflammation. To reduce chronic inflammation and cancer risk, eat more omega-3 rich foods and fewer omega-6 rich foods.

### Eat More Omega -3 Fats

Wild-caught cold water fish including, salmon, tuna, halibut, herring, sardines and mackerel

Avocados, olives

Walnuts, pecans, cashews, ground flaxseed, chia seeds, pumpkin seeds

Olive, canola and avocado oil

Meat, milk, yogurt, and eggs from grass fed or pasture raised animals

### Eat Fewer Omega-6 Fats

Fried fish

Fried vegetables

Peanuts, sunflower seeds

Soy, corn and peanut oil

Meat, milk or eggs from grain fed animals; high-fat milk and dairy such as whole milk, half and half, whipped cream, full-fat cheese; fried or deep fried meat or chicken

## Understanding soy

Soy-derived foods, such as tofu, soy milk and soy powder, provide a number of nutrients. Soy is a good source of fiber, protein and phytochemicals.

Currently, most experts agree that a moderate amount (1 to 2 servings per day) of soy is safe and possibly helpful for cancer survivors, including breast cancer survivors. Soy contains a large amount of isoflavones. However, do not eat large amounts of soy, such as soy powders or isoflavone supplements. Talk with your doctor or dietitian to learn more about soy.

- Soy milk: This non-dairy liquid is fortified with calcium and often vitamins A and D. Choose a low-fat or non-fat option. Use this to substitute for milk in any recipe, or drink it plain.
- Tofu: This varies in texture from extra firm to soft or silken. Extra firm tofu is dense and holds well for stir-frying or grilling. Soft or silken tofu is ideal for blending in soups or adding to pureed or blended dishes.
  - Tip: When the recipe calls for sour cream, use half tofu and half sour cream.
  - Remember to keep tofu refrigerated. It is perishable, so always check the expiration date.
  - You can freeze tofu for up to 5 months.
- Soy nuts: These baked mature soybeans are usually seasoned. They have a nutty flavor, similar to a roasted peanut. Try them as a snack.
- Edamame: These boiled or steamed green soybeans are eaten straight out of the pod. Squeeze out the bean with your fingers or teeth and throw away the pod. They can also be purchased already shelled. Eat them as a snack.



## Limit sodium

Limit sodium to no more than 2,400 mg per day. This is equal to about 1 teaspoon of salt. Eating too much salt can increase your risk of stomach cancer and make existing high blood pressure worse. Try to divide your salt evenly throughout the day. Beware of salt hiding in bread, cereal, canned foods (like soups), condiments and processed meats (like packaged and fresh deli meats). Limit these foods in order to reduce your salt intake and read food labels to help choose items with less salt. Season foods with herbs and spices instead of salt or prepared seasonings.

## Reading Food Labels

A Nutrition Facts panel (or food label) is on almost all processed foods, cooked meats and prepared foods. Some raw food like raw chicken breast and fresh fruits and vegetables do not have a label.

Use these tips to help understand food labels:

- Know that g=gram and mg=milligram.
- Check the serving size. It may be more or less than what you expect. Serving sizes are based on what is normally eaten.
- The left side of the label lists the calories, fat, cholesterol, sodium, total carbohydrates and protein. Know your goals for each.
- Check the percent daily value on the right of the label.

This is based on a 2000-calorie per day diet. Adjust the percentages for your daily diet if it is different than 2000 calories per day. Speak to a dietitian to understand what your daily caloric intake should be.

<b>Nutrition Facts</b>	
8 servings per container	
<b>Servings size</b>	<b>2/3 cup (55g)</b>
<b>Amount per serving</b>	
<b>Calories</b>	<b>230</b>
	<b>% Daily Value*</b>
<b>Total Fat 12g</b>	<b>10%</b>
Saturated Fat 1 g	<b>5%</b>
<i>Trans Fat</i> 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>13%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 12g	
Includes 10g Added Sugars	<b>20%</b>
<b>Proteins</b> 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

\*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

## Limit Alcohol

Alcoholic drinks are high in calories with limited nutritional benefit. In other words, they are empty calories. We also know that cancer and other disease risk increases when alcohol use increases.

Too much alcohol may increase the risk of:

- Liver cancer
- Cancers of the digestive system, such as colorectal cancer and cancer of the mouth and esophagus
- Breast cancer
- Heart disease
- Obesity
- Cirrhosis of the liver

Although alcohol and its link to cancer risk needs more research, data shows that drinking alcohol combined with tobacco use adds to cancer risk.

### What is a serving of alcohol?

Men should have no more than 2 servings or less per day. Women should have no more than 1 serving or less per day. Instead, try fruit smoothies, green tea, herbal teas or alcohol-free cocktails. If you choose to drink, know the serving size so you can keep track of the amount consumed.



#### **A serving of alcohol is either:**

- 5 ounces of wine
- 12 ounces of beer
- 1 ½ ounces of liquor

## Be Physically Active

### Benefits of physical activity:

- Reduces cancer risk
- Improves overall health
- Improves heart and lung health and lowers risk of heart disease
- Helps with weight loss and helps to maintain weight
- Increases energy level, endurance, strength and flexibility
- Lessens the effects of stress, anxiety and fatigue and provides emotional well-being
- Helps maintain regular bowel function

Consult with your doctor about which exercises and activities are best for you. Some late effects of cancer and its treatment may limit activity.



### Easy ways to be more active

- Use the stairs instead of the elevator.
- Park at the far edge of the parking lot.
- Walk a few laps around the store before you begin to shop.
- Purchase a new or used stationary bicycle, and peddle while watching TV.
- Walk, jog or jump rope in place.
- Increase your steps by taking a longer route.

### Physical activity vs. exercise

The term physical activity describes many forms of movement, including activities that involve the large skeletal muscles. Physical activity should not be confused with exercise. Exercise consists of activities that are planned, structured and repetitive and that maintain or improve one or more of the components of physical fitness. The 5 components of physical fitness are cardiovascular endurance, muscular strength, muscular endurance, flexibility and body composition.

It is important for you to be physically active in general, meaning move more and sit less. It is equally important that you exercise regularly, including aerobic exercise, strength training and flexibility exercise.

- Aerobic exercise is any activity that raises your heart rate and breathing for a sustained period of time. Doing this helps improve cardiovascular and muscle endurance.
- Strengthening exercise involves moving your joints against some resistance to build strength and lean body mass.
- Doing both strengthening and aerobic exercise helps improve your body composition.
- Flexibility exercises can improve range of motion by stretching muscles in a slow sustained manner.

## How much physical activity do I need?

### Aerobic exercise

You should strive for moderate or vigorous aerobic exercise most days of the week. During moderate aerobic exercise, you should be a little out of breath and feel your heart beating a little faster. During vigorous aerobic exercise, you should be breathing more rapidly and only able to speak a few words at a time. Another way to determine the intensity of aerobic exercise is with a number scale from 0 to 10 that rates how hard you feel you are working. A 0 means no work and a 10 is the hardest work possible. Moderate aerobic exercise puts you at a 4, 5 or 6 on that scale, and vigorous puts you at a 7, 8 or 9.

Based on your ability and goals, try to achieve at least the following:

- 150 minutes of moderate aerobic exercise each week

OR

- 75 minutes of vigorous aerobic exercise each week

OR

- Some combination of both vigorous and moderate aerobic exercise

Start slow with shorter sessions (10-15 minutes) at a relaxed pace to avoid injury. Then over time, increase the frequency, length and intensity of your activity. You can reach the total minutes through different types of activity. For example, you could walk briskly for 30 minutes, 5 days a week. (This would be 150 minutes of aerobic exercise.) You could also swim laps or play basketball for 25 minutes, 3 days a week. (This would be 75 minutes of vigorous aerobic exercise.) If having enough time is a factor, you can divide your workout into two 15 minute sessions or three 10 minute sessions to reach your 30 minutes per day. It has the same benefit as doing it all in one 30 minute session.

The table below gives examples of moderate and vigorous aerobic exercise. Remember that you can judge what is moderate or vigorous by using the tools we mentioned above to monitor how hard you feel like you're working. You can also change the intensity of an exercise to make it more moderate or more vigorous by adjusting the amount of effort you put into it.

<b>Moderate Activity</b>	<b>Vigorous Activity</b>
Brisk walking (17-minute mile)	Fast walking (12-minute mile)
Dancing	Running
Slow swimming	Fast bicycling
Golfing	Basketball
Gardening	Swimming laps

## Strength training

Strength training is a type of exercise that provides resistance against a force. It can help build lean muscle, improve muscle tone, assist in building bone density to help prevent osteoporosis and strengthen muscles. Include strength training at least 2 days per week. Choose a weight that is heavy enough that you really can't do more than 15 repetitions of a given exercise. Perform exercises that add resistance such as:

- Use free weights or dumbbells to do a bicep curl.
- Use weight machines to do leg presses.
- Perform walking lunges using your body weight as resistance.
- Use resistant bands to perform a shoulder press.

## Flexibility exercise

Flexibility exercise involves sustaining a body position that elongates a muscle. It helps to maintain full mobility in all joints and to avoid injury during exercise or physical activity.

Flexibility exercises include:

- Yoga
- Pilates
- Forward bend — reach your chest toward your toes while standing or seated
- Stretches (examples are hamstring stretch, chest stretch, calf stretch)

### Seated hamstring stretch

- While sitting on the edge of a chair, straighten one leg in front of the body with the heel on the floor.
- Reach out with your hands, lean your upper body forward, and pull your chest towards your thigh.
- Be careful not to round the upper back. There should be a slight curve in the lower back.
- Hold this stretch for 30 seconds.
- Repeat 3 times for each leg.

## Tips for success

- Schedule exercise on your calendar to reserve time in your day.
- Find an exercise partner to help you stay with your program and keep you company.
- Warm up and cool down for 5 minutes. Remember to stretch after your warm up and cool down.
- You may need to increase activity and eat fewer calories to lose weight. A dietitian can help you with a personal weight loss plan.



## Maintain a healthy weight

Reduce your cancer risk by maintaining a healthy weight. Total body fat and visceral fat, the fat around your waist, increases the risk for up to 13 cancers. These include colorectal, breast (postmenopausal), endometrial, esophageal, pancreatic, gallbladder, kidney, liver and others. Body mass index and the size of your waist are 2 important numbers. If they are high, you may be at higher risk for certain cancers and other health problems.

### Body Mass Index (BMI)

Body mass index, or BMI, measures a person's weight in relation to height. As BMI increases, so does your risk for some cancers. To find your BMI, refer to the chart on Page 20. Then review the table below.

### BMI weight status

Below 18.5 Underweight

18.5 – 24.9 Normal

25 – 29.9 Overweight

30 and above Obese

My BMI is \_\_\_\_\_

My BMI goal is \_\_\_\_\_

### Waist size

Health Risk	Men	Women
Low Health Risk	40 inches or less	35 inches or less
High Health Risk	More than 40 inches	More than 35 inches

Waist circumference, or the size around your waist, measures the fat around your waist. People with large waists or an increase in waist size over time are at higher risk for some cancers.

To find your waist size, follow these steps.

1. Face a mirror and find the top of your hipbone.
2. Wrap a tape measure around your waist, just above your hipbone. The tape should be snug, but not pressing into the skin.
3. Exhale and record the measurement in inches.

My waist size is \_\_\_\_\_

## Weight loss

Ask your doctor or dietitian about a healthy weight for you. If you are not at a healthy weight, follow these steps:

1. **Set a goal.** Make this goal sensible and include a deadline.

For example, if you need to lose weight, you could start with a goal of 10 % weight loss in 6 months. Do not lose weight too quickly. Slow, consistent weight loss is healthy. Eating 300 to 500 fewer calories per day can result in a weight loss of 1 to 2 pounds per week. Anything more may be unhealthy.

2. **Focus on eating balanced, healthier foods.** Increase your intake of vegetables and fruits.
3. **Get and stay active.** Start with 10 to 15 minutes of walking each day and increase over time. Work your way up to 150 minutes per week (30 minutes a day, 5 days a week).
4. **Make lifestyle changes:**
  - Limit the number of times you dine out
  - Involve your family and friends in being active
  - Plan your meals and schedule time for exercise
  - Make your health and weight loss goal a priority

## Vitamins and other supplements

You may not need to take vitamins, minerals, antioxidants or herbal products. It is best to make healthy food choices and eat a plant-based diet.

Research has found that taking supplements may not provide the same health benefit as eating whole foods. In some cases, taking high doses of some supplements can be harmful.

Supplements may also interfere with prescriptions and over-the-counter medicines and chemotherapy. Tell your health care team about all supplements you take. If you take blood-thinning medicine, this is especially important.

In most cases, the body is better able to use nutrients from food than from supplements. If you wish to take a supplement:

- Talk to your dietitian and health care team. They can help you review all options.
- Track your diet to see how much of a nutrient you get from food.
- If you need a supplement, a daily multivitamin may be best. Take it as instructed on the label.





## How do I choose a multivitamin?

Choose a multivitamin with no more than 100 percent daily value of the nutrients that are listed on the label. This information is on the right side of the nutrition label. Avoid multivitamins that have herbal products. Herbal ingredients may interact with prescription or over-the-counter medicine. A multivitamin should not take the place of nutrients found in a healthy, well-balanced diet.

## How can I be sure of a supplement's quality?

Unlike food, the U.S. government does not review the safety of dietary supplements. This includes all vitamins, minerals and herbal products. Therefore, it is best to use dietary supplements that are reviewed by an independent third party organization like the United States Pharmacopeia or ConsumerLab.com.

- **United States Pharmacopeia (USP)**

[www.uspverified.org](http://www.uspverified.org)

To receive the USP Verified seal of approval on a product label, the supplement manufacturer must volunteer to participate in the program. The product is then tested for quality, purity and potency. Many brand and generic supplements are USP verified.

- **ConsumerLab.com (CL)**

[www.ConsumerLab.com](http://www.ConsumerLab.com)

ConsumerLab performs independent reviews of dietary supplements and publishes this information on the website. However, this information is only available to subscribers. Brands that meet the CL standards may carry the CL seal of approval on their label.

There is not enough research data to state that herbal supplements are safe or useful. Herbs vary from region to region and from each other. It is hard to know if herbal supplements are all the same. Evidence suggests that too many supplements may increase cancer risk. Talk with your health care team before taking these.

## Special considerations

Even if you have another chronic health problem, such as diabetes, heart disease or liver or kidney disease, you can still live a healthy and enjoyable life. In addition to these guidelines, monitor your carbohydrate, protein, salt and fat intake.

Seek advice from a registered dietitian to help you improve your health. Registered dietitians are licensed specialists. Their extensive education and training prepare them to make personalized care plans for patients during treatment and recovery.

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## Resources

### **American Cancer Society**

800-ACS-2345 (800-227-2345)

[www.cancer.org](http://www.cancer.org)

The American Cancer Society provides information on nutrition during and after treatment, how to handle side effects and much more. In the website search field, type “nutrition” to find information. Type “cooking smart” to find tips on healthy cooking, shopping lists and more.

### **The Academy of Nutrition and Dietetics (The Academy)**

800-877-1600

[www.eatright.org](http://www.eatright.org)

The Academy is the nation’s largest organization of food and nutrition professionals. This website provides objective food and nutrition information for optimal nutrition, health and well-being. Although partially restricted to The Academy members, you may search for healthy lifestyle tips, use online tools, read brochures and reading lists and link to other nutrition resources.

### **American Institute for Cancer Research (AICR)**

800-843-8114

<http://aicr.org>

The AICR funds research on diet and cancer prevention and educates the public about the results. This site contains valuable research-based information. Click on the “Subscribe” tab at the top of the page to subscribe to a free e-newsletter and weekly healthy recipes.

### **National Cancer Institute (NCI)**

800-422-6237

<http://www.cancer.gov>

For more information about nutrition and cancer survivorship, call the National Cancer Institute’s Cancer Information Service. A trained cancer information specialist will answer your questions.

Type “nutrition” in the search field to read “Nutrition in Cancer Care (PDQ).”

### **National Institutes of Health – Office of Dietary Supplements**

301-496-4000

<http://dietary-supplements.info.nih.gov>

Click on the “Health Information” tab to find information on dietary, vitamin, mineral and herbal supplements. This link includes Federal Drug Administration (FDA) warnings and false advertising claims filed by the Federal Trade Commission (FTC). The Department of Agriculture’s Food Consumption Database is also available.

### **Nutrition Data**

[www.nutritiondata.com](http://www.nutritiondata.com)

In addition to tools like the Daily Needs Calculator and the Nutrient Search Tool, Nutrition Data gives a complete nutrient analysis for any food or recipe and helps you select foods that best match your dietary needs.

## **Nutrition.gov**

[www.nutrition.gov](http://www.nutrition.gov)

This website provides access to government information on food and nutrition. Find reliable information on healthy eating, physical activity and food safety. Specialized nutrition information is also provided for life stages: infants, children, teens, women, men and seniors.

## **MD Anderson Cancer Center**

<http://mdandersontlc.libguides.com/nutrition>

This online tool connects you to the reliable health information you need. This guide provides resources on nutrition and physical activity for patients, survivors and the general public.

<https://atthetable.mdanderson.org/>

@**TheTable** is an online cookbook with nutritious, family-friendly recipes for a healthy lifestyle. A dietitian from the Children's Cancer Hospital has reviewed these recipes.

## **Smartphone apps & websites**

There are many apps and interactive websites to assist you with your health goals. Some help in tracking activity while others can provide information about nutrition and help keep a record of foods. Although many are free to use, some may have features or additional items for you to purchase.

## **Journal articles**

*American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention: Reducing the Risk of Cancer with Healthy Food Choices and Physical Activity in CA: A Cancer Journal for Clinicians*, volume 62, pages 30-67, 2012. Available at:

<http://onlinelibrary.wiley.com/doi/10.3322/caac.20140/epdf>

*Nutrition and Physical Activity Guidelines for Cancer Survivors in CA: A Cancer Journal for Clinicians*, volume 62, pages 242-274, 2012. Available at:

<http://onlinelibrary.wiley.com/doi/10.3322/caac.21142/pdf>

# Appendix

		Normal										Overweight										Obese										Extreme Obesity									
		19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54				
BMI	Height (inches)	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54				
	58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258				
	59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267				
	60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276				
	61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285				
	62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295				
	63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282	287	293	299	304				
	64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314				
	65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324				
	66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334				
	67	121	127	134	140	146	153	159	166	172	178	185	191	198	203	210	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344				
	68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354				
	69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365				
	70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376				
	71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386				
	72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397				
	73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408				
	74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420				
	75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431				
	76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443				

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.







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