A Guide to Managing Your Health and Weight Before, During and After Cancer Treatment



Making Cancer History®

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The link between cancer and obesity

Your Baptist MD Anderson Cancer Center oncology care team will treat and manage your cancer closely. We also want to help you decrease your risk for cancer and other diseases. One important way that you can help lower your overall cancer risk and feel better is by maintaining a healthy weight. Research indicates that obesity may worsen several aspects of cancer survivorship, including quality of life, cancer recurrence, cancer progression, and prognosis (survival).

Obesity is a risk factor for serious illnesses, including heart disease, high blood pressure, diabetes, arthritis and many other illnesses that affect quality of life. Being overweight or obese is also a risk factor for many cancers.

Mechanisms Linking Obesity and Cancer

Obese people often have increased levels of Insulin and insulin-like growth factor-1 (IGF-1) in their blood, which may promote the development of certain tumors. This is also called insulin resistance.

Obese people often have chronic low-level or "subacute" inflammation, which has been associated with DNA damage that can lead to cancer.

Fat tissue produces high amounts of estrogen, which may drive development of certain obesity-related cancers, including estrogen-sensitive cancers.

Fat cells produce adipokines, such as leptin, which are hormones that promote cell proliferation. The presence of these hormones in the blood increases with increased body fat.

Fat cells (adipocytes) may also have effects on certain tumor growth regulators.

How do I know if I am overweight or obese?

Your doctor is the best resource to help you determine if you need to lose weight. Body mass index, or BMI, is a tool for measuring a person's weight in relation to height. For women and men, a BMI between 18.5 and 24.9 is a normal, healthy weight. Narrow the range to 21 to 23 for the healthiest weight to reduce cancer risk further. If your BMI is 25 or higher, Baptist MD Anderson experts recommend losing weight. For adults over age 20, BMI falls into one of these ranges:

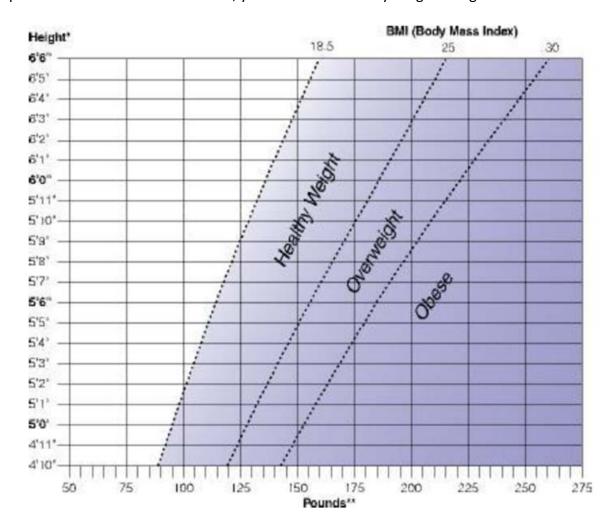
BMI	Weight Status
Below 18.5	Underweight
18.5 - 24.9	Normal/healthy
25 - 29.9	Overweight
30 and above	Obese

As BMI increases, so does your risk for major health problems. This includes cancer, heart disease, stroke, diabetes, gallbladder disease, sleep apnea and osteoarthritis.



Calculating your BMI:

You can use the graph below to determine if you are in a healthy weight range. Find your weight on the bottom of the graph. Go straight up from that point until you come to the line that matches your height. Then look to find your weight group. For example, if you weigh 140 pounds and are 5 feet 6 inches tall, you are in the "healthy weight" range.



What can I do to change my lifestyle?

The National Institutes of Health reports that if you reduce your body weight by 10 percent, you can lower your risk for obesity-related diseases including cancer. For many, losing weight is not easy and they don't know where to start. The following information can serve as a guide to help you with your personal start to wellness.



Throughout your journey to wellness and weight loss it is important to remember these things:

- Get support from others with similar goals. This can be in a formal group or with your friends and family.
- Make sure your goals are realistic. You have a much better chance of keeping off the weight if you lose one to two pounds a week.
- Include exercise or some sort of physical activity in your daily routine, once your doctor says it is OK.
- Have a doctor or medical professional help you with your goals.
- Keep a journal of what you eat and when you eat. This can show you patterns that you may want to work on changing.
- If you eat when you are sad, lonely, angry or bored, ask for help. Often people who struggle with their weight eat for other reasons not related to being hungry.
- Forgive yourself and get back on track.

Eat Well

Whether you are a patient undergoing treatment or a survivor who has wrapped up active treatment, it's important to eat well throughout your cancer journey. Talk to your care team about the guidelines below so that you can create a diet tailored to your needs.



Eat a diet rich in whole grains, vegetables, fruits, and beans

- To start, cover at least 2/3 of your plate with plant foods such as whole grains, vegetables, fruit and beans.
- Fill the last 1/3 of your plate with animal-based, protein rich foods, such as seafood, poultry and dairy foods. On occasion, you can fill this with lean red meat.
- Limit "fast foods" and other processed foods that are high in fat, starches or sugars. Eating fewer processed foods helps you control your calorie intake and makes it easier to keep a healthy weight.
- Fuel up on minimally processed vegetables, fruit, whole grains and beans.
- Limit processed foods such as chips, cookies, candy bars, desserts, baked goods, sugary cereals and fried foods.
- Read nutrition facts labels on packaged foods.

Limit red and processed meats

- Limit animal foods to no more than 1/3 of your plate.
- Eat no more than 18 ounces of cooked red meat per week. Keep in mind that 3 ounces (1 serving) of red meat is about the size of a deck of cards.
- Eat little, if any, processed meat. This includes sandwich meats, ham, bacon, pastrami, salami, hot dogs and sausages.
- Processed meats are preserved by smoking, curing, salting, or fermenting, or they have added chemical preservatives. Cancer-causing substances (carcinogens) can form when meats are preserved.

Limit sugar-sweetened drinks

- Drink mostly water and unsweetened drinks.
- In excess, sugary drinks can contribute to weight gain that increases your cancer risk.
- Drink water alternatives such as sparkling water (without sugar) or hot or iced tea.

Limit alcohol

• For cancer prevention, it is best not to drink alcohol. If you drink alcohol, limit to no more than two drinks per day for men and no more than one drink per day for women (one drink is equal to 12 ounces of beer, 5 ounces of wine or 1½ ounces of liquor).

Do not use supplements for cancer prevention. Try to meet your nutritional needs through diet

alone.

Physical Activity and Exercise

The term physical activity describes many forms of movement, while exercise consists of activities that are planned, structured and repetitive. Exercise maintains or improves one or more of the components of physical fitness.



Physical activity and exercise both help to:

- Lower cancer risk or the risk of recurrence
- Improve overall health
- Promote a healthy heart and lungs, which lowers the risk for heart disease
- Help prevent heart disease, diabetes and osteoporosis
- Help with weight loss and maintenance, which can reduce cancer risk
- Increase energy levels, endurance, strength and flexibility
- Lessen the effects of stress, anxiety and fatigue and foster emotional well-being
- Help maintain normal bowel function

Three components of physical fitness that you should focus on are:

- Aerobic exercise to improve cardiovascular endurance
- Strengthening exercise to improve muscular strength
- Flexibility exercises to improve flexibility

Recommended Amounts and Types of Exercise

Before starting a new exercise routine, talk to your care team about the best exercise program for you. Exercise has many benefits for cancer patients and survivors, including helping to relieve treatment-related fatigue.

Aerobic Exercise

Aerobic exercise is any activity that keeps your heart rate and breathing raised for a period of time. Doing this strengthens and improves your heart and lung function. Aim for moderate or vigorous aerobic exercise most days of the week. When doing moderate exercise, you should be a little out of breath and feel your heart beating a little faster than usual. During vigorous aerobic exercise, you should be breathing more rapidly and only able to speak a few words at a time. This is called the "Talk Test."

Based on your ability and goals, try to do the following:

- 150 minutes of moderate aerobic exercise each week OR
- 75 minutes of vigorous aerobic exercise each week
- Some combination of both vigorous and moderate aerobic exercise

You can change your exercise to meet your desired intensity. You can do this by changing your pace, increasing resistance or both. House cleaning or yard work can count as exercise.

Strengthening Exercise

Strengthening exercise, or strength training, is a type of exercise that provides resistance against a force. It can help:

- Build lean muscle
- Improve muscle tone
- Build bone density to help prevent osteoporosis
- Strengthen muscles

Do strength training at least two days per week. Choose a weight that is heavy enough that it is hard to do more than 15 repetitions of a given exercise.

Do exercises that add resistance, such as:

- Using free weights or dumbbells to do a bicep curl
- Using weight machines to do leg presses
- Walking lunges which use your body weight as resistance
- Using resistance bands to do a shoulder press

Flexibility Exercise

Flexibility exercise, also known as stretching, involves holding a position that stretches a muscle. It helps to keep full mobility in joints. It also helps avoid injury.



Tips for Success

- Put exercise on your calendar to reserve time in your day.
- Choose exercises you enjoy.
- **Break it up**. If you feel like you do not have time or energy for your full exercise session, divide it into shorter sessions.
- Create a plan, and set short term, specific and realistic goals.
- **Monitor your activity.** Many people find that it helps them to monitor their progress in writing.
- **Fit exercise into your normal day.** Use a treadmill or stationary bike while you watch TV. You can also walk, jog or jump rope in place.
- **Reward yourself.** Exercise has many benefits, but many of them are longer term, so they do not reinforce behavior change right away. Identify some rewards you can give yourself when you accomplish your goals.
- Do not give up if you miss one or two sessions.
- Find a partner with goals for fitness that are like yours. This will help you stay with your program and keep you company.
- Warm up and cool down for five minutes. Remember to stretch after you 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.

Ways to be More Physically Active throughout the Day

- Use stairs instead of the elevator.
- Park at the far end of the parking lot.
- Walk a few laps around the store before you begin to shop.
- Buy a new or used stationary bike and place it front of the television so you can pedal while you watch TV.
- Walk, jog or jump rope in place for two minutes every hour while at work.
- Carry groceries into the house one bag at a time.

Sleep Better

During the Day

- Exercise regularly. A 20-minute walk during the day can help you relax. Do not exercise right before bedtime.
- Limit naps if you can. If you must rest, limit your nap to 30 minutes or less.



Before Bedtime

- Avoid alcohol, caffeine, chocolate and nicotine in the late afternoon and evening. Limit liquids in the evening before going to bed.
- Turn off the TV one hour before bedtime and put away your phone, tablet or laptop. Listen to quiet music or take a warm bath to relax before bed.
- If you are worried or anxious, or thoughts are keeping you awake, try writing down your thoughts or making a list of things you need to do. This will allow you to worry less about forgetting anything and will help you relax.

At Bedtime

- Go to bed and get up at the same time every day. Keep this routine even on weekends.
- A light bedtime snack of warm milk, turkey or a banana may make you sleepy. Use your bedroom for sleep and intimacy only. Do not read, watch TV, or work in the bedroom.
- If you tend to watch the clock at night, turn the clock around.
- If you have a partner, both people should go to bed at the same time, if possible.

Problems Falling Asleep or Waking up During the Night

- If you have not fallen asleep in 15 minutes, go to another room to relax.
- Listen to quiet music.
- Avoid things that provide mental stimulation such as watching TV or reading exciting hooks
- Go back to bed when you feel sleepy. If you still cannot fall asleep, get up again and repeat these steps as necessary.

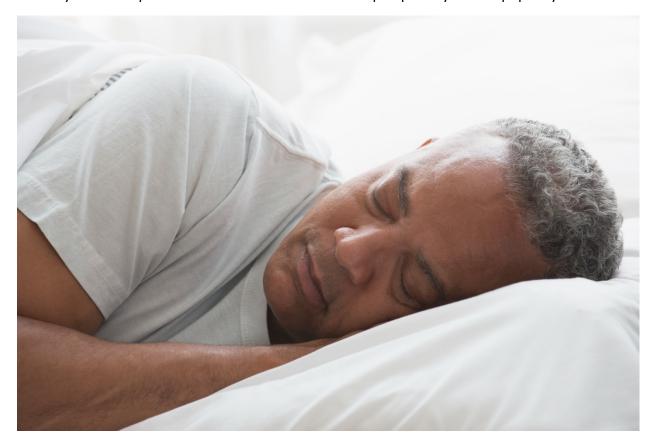
Improving Sleep During Your Hospital Stay

- Try the same strategies as above.
- Bring familiar items from home to make you more comfortable.
- Talk with your nurse and doctor about clustering your care.

- Consider using an eye mask to avoid light and earplugs to block out noise during sleep.
- Maintain a daily routine and do physical activity to promote a better night's sleep.
- Take a 20- to 30-minute nap, if needed, during the day to improve alertness and increase mood.
- Try not to lie in bed all day. Get up and do activities throughout the day.

Apps for Sleep

• There are many types of apps available to help with sleep and relaxation. Do a search on your smart phone or tablet for new ideas to help improve your sleep quality.



Reduce Stress

The first step is to recognize when you are feeling stressed. Tight muscles in your shoulders and neck or clenching your hands into fists may be early signs that you are stressed.



Once you know you are stressed, the next step is to find a way to reduce your stress.

Tips for Reducing Stress

Accept things you cannot change

The act of worrying about things you cannot change does not tend to improve the situation, and it may make you feel worse. You can tell yourself, "This is the situation, now what? What action can I take to help me feel better?"

Be realistic

You cannot do everything. If you are feeling overwhelmed with activities (either yours or your family's), learn to say "No" so you do not take on more than you can or should handle.

Add humor to your life

Humor and laughter can give you a sense of perspective on problems in life and can help take your mind off discomforts and stress.

Meditate

Set aside 15 to 20 minutes a day for quiet reflection. Use the time to think of pleasant things or think of nothing at all. Listening to music may help.

Practice deep breathing

The goal of deep breathing is to breathe from your abdomen to increase the amount of oxygen taken into your body. Breathe in a slow, controlled manner to relax your body. Follow the steps below to practice deep breathing:

- Get into a comfortable position and close your eyes. Lie down on your back with your knees bent or sit in a chair. Loosen your belt or any tight clothing.
- Place your hands over your belly button.
- Breathe in deeply through your nose, filling your abdomen with air. Your hands on your belly button should rise.
- Hold your breath for a few seconds, or as long as is comfortable for you.
- Let all the air out slowly through your nose or mouth. Your hands on your belly button should lower as you breathe out.
- Continue to breathe in and out with long, slow, deep breaths. Focus on the sound and feel of your breathing as you notice yourself becoming more relaxed.

Practice mindfulness

Often in life, we find ourselves thinking about the past or the future. Our mind jumps from one thought to another. Mindfulness is about keeping your attention on the present moment. The purpose of mindfulness is to take you off "autopilot" and become more fully aware of the present. Try the following exercise to learn how to use mindfulness in your everyday life. Start by sitting in a comfortable place.

- Concentrate on a single thing, such as your breathing. Focus on the feeling of the air as it passes in and out of your nose with each breath. Do not try to control your breathing by speeding it up or slowing it down. Just observe it as it is.
- Your mind will quickly drift off to thinking about something else. When this happens, observe where your thoughts went. Was it a memory, a worry about the future or a feeling of impatience? Then return your attention to your breathing.
- Each time a thought or feeling comes to mind, observe what it is, then return to your breathing. Don't judge or act on the thought or feeling. Keep practicing mindfulness, breath by breath.

Start out practicing this exercise for five minutes. As you become better able to focus on the present, practice it for 10 or even 20 minutes.

Exercise

Regular exercise can relieve stress and improve your health. Do what you enjoy – walk, swim, ride a bike, jog or practice yoga, tai chi or qigong to get your heart beating.

Find a hobby

Take your mind off your worries by doing something you enjoy. Try reading, gardening, painting or scrapbooking.

Get a massage

Many people enjoy massage as a way to relieve stress. Baptist MD Anderson offers massages at our Life Wellness Center. To make an appointment, please call 904.202.7811.

Think ahead

If you know something will upset you, try to avoid it if possible. For example, rearrange your schedule so you do not have to drive during rush hour traffic.

Share your feelings

Open up to your friends and family about any problems you have. Let them provide support and guidance.

Try journaling

When facing a serious illness, people often find it difficult to express their feelings to others. Journal writing provides a safe and private way for you to express these difficult feelings. Follow the steps below to help you get started.

• Make a plan.

Choose a time of day that is most convenient for you. Then make a goal to write for 15 minutes, two days a week at that time. Once that becomes a routine, try adding a day.

Find a spot

Choose a place to write that is comfortable and relaxing – a place where you can be alone and focus on your thoughts.

Start writing

Write down whatever comes to mind. Let your mind wander and your words flow. Don't edit yourself.



Appendix

Eat Well Resources

Livestrong

www.livestrong.org/

This site provides both education and food journaling for cancer survivors. There are also videos and blogs including recipes and motivational materials.

Academy of Nutrition and Dietetics

www.eatright.org/

This site provides educational materials for both patients and health care professionals regarding nutrition.

Choose My Plate

www.choosemyplate.gov/

The site "choosemyplate.gov" is a great site for tracking diet and obtaining healthy recipes. Patients can also obtain daily food plans and worksheets. "Supertracker" can help you plan and track your meals.

American Institute for Cancer Research

www.aicr.org/

The American Institute for Cancer Research has a program called the "New American Plate Challenge." This program is 12 weeks long and provides instruction regarding healthy eating that specifically includes Foods that Fight Cancer TM. You can track your progress and exchange messages with other members.

American Society for Clinical Oncology (ASCO)

Managing Your Weight after a Cancer Diagnosis: A Guide for Patients and Families (PDF) http://www.cancer.net/sites/cancer.net/files/weight after cancer diagnosis.pdf

• MD Anderson At the Table Cookbook

www.mdanderson.org/recipes

• Fruits & Veggies-More Matters

www.fruitsandveggiesmorematters.org

AICR

www.aicr.org

Academy of Nutrition and Dietetics

http://www.eatright.org/Public/

Center for Disease Control and Prevention

www.cdc.gov/healthyweight/healthy eating/fruits vegetables.html

- Nutrition.gov www.nutrition.gov
- United States Department of Agriculture's Nutrient Data Laboratory https://ndb.nal.usda.gov/ndb/

Be Active Resources

activity.

American Cancer Society (ACS): Eat Healthy and Get Active www.cancer.org/healthy/eathealthygetactive/

This site provides details about the importance of exercise in cancer prevention as well as resources providing exercise guidelines and tools to set goals and manage physical

American Council on Exercise (ACE): Get Fit

www.acefitness.org/acefit/

This site is full of fitness programs including personalized training workouts and a library of exercise programs. Links to local exercise trainers are provided.

 American Heart Association: Getting Healthy – Physical Activity www.heart.org/HEARTORG/GettingHealthy/PhysicalActivity/Physical-Activity UCM 001080 SubHomePage.jsp

This site provides the American Heart Association guidelines for physical activity, tips for getting started and tips for long-term success.

Centers for Disease Control and Prevention: Physical Activity

 www.cdc.gov/physicalactivity/everyone/guidelines/index.html

 This site offers physical activity guidelines for all Americans. Measures for physical activity intensity are provided, as well as success stories to inspire you.

National Association for Health and Fitness www.physicalfitness.org/

This is a non-profit organization that exists to improve the quality of life for individuals through promotion of physical fitness, sports and healthy lifestyles. The site has links to information on fitness, physical activity, and general well-being.

 World Health Organization: Health topics – Physical Activity www.who.int/topics/physical activity/en/

This site provides clear definitions of physical activity and global recommendations on physical activity for health.

Y Healthy Living Centers

https://www.baptistjax.com/locations/y-healthy-living-centers

The Healthy Living Centers are the first of their kind on the First Coast, bringing medically integrated programs from Baptist Health into the Y – and making these programs more accessible to the surrounding communities.

Livestrong at the YMCA

https://www.livestrong.org/what-we-do/program/livestrong-at-the-ymca
Livestrong partners with the YMCA to promote the importance of physical activity after a cancer diagnosis.

Sleep Better Resources

- Online course for improving your health while battling cancer Anticancerlifestyle.org
- Baptist Health Sleep Centers

https://www.baptistjax.com/locations/sleep-centers

Accredited through the American Academy of Sleep Medicine, the Sleep Disorders Centers at Baptist Health offer extensive experience in diagnosing and treating individuals with sleep disorders.

- **Sleep Education** (from the American Academy of Sleep Medicine): http://www.sleepeducation.org/
- National Healthy Sleep Awareness Project (from the American Academy of Sleep Medicine)

http://www.sleepeducation.org/healthysleep

- American Sleep Association
 https://www.sleepassociation.org/
- National Heart, Lung, and Blood Institute-National Institutes of Health https://www.nhlbi.nih.gov/health-pro/resources/sleepexternal icon
- American Academy of Sleep Medicine http://www.aasmnet.org/
- National Sleep Foundation https://www.thensf.org/external.icon
- Insomnia
 - Handout from the American Cancer Society
 - http://www.cancer.org/acs/groups/content/@editorial/documents/document/acspc-031631.pdf
- Self-Help Workbooks
 - Quiet Your Mind and Get to Sleep: Solutions to Insomnia for Those with Depression, Anxiety or Chronic Pain, By Colleen Carney (New Harbinger Self-Help Workbook) Paperback - December 2, 2009
 - The Insomnia Workbook: A Comprehensive Guide to Getting the Sleep You Need,
 By Stephanie Silberman
 - Say Good Night to Insomnia: The Six-Week, Drug-Free Program Developed At Harvard Medical School, By Gregg D. Jacobs; Paperback - September 15, 2009
 - o Online Program: CBTforInsomnia.com
- Handouts on Fatigue from the American Cancer Society
 - o http://www.cancer.org/acs/groups/cid/documents/webcontent/002853-pdf.pdf
 - o http://www.cancer.org/acs/groups/cid/documents/webcontent/002842-pdf.pdf

Stress Reduction Resources

- Online course for improving your health while battling cancer
 - o Anticancerlifestyle.org
- Websites and Smartphone Applications (Android and iPhone) for Mindfulness and Relaxation Practice
 - Headspace
 - https://www.headspace.com/
 - Mindfulness Meditation by Mental Workout
 - https://itunes.apple.com/us/app/id312327144?mt=8
 - Breathe2Relax by the National Center for Telehealth and Technology
 - https://itunes.apple.com/us/app/breathe2relax/id425720246?mt=8
 - Simply Being by Meditation Oasis
 - http://www.meditationoasis.com/
- Websites for Guided Mindfulness Practice
 - University of Michigan Comprehensive Cancer Center
 - http://www.mcancer.org/support/managingemotions/complementarytherapies/guided-imagery/audio-library
 - Guided Self-Compassion Meditation
 - http://www.self-compassion.org/guided-self-compassionmeditationsmp3.html
 - Mindful Self-Compassion
 - http://www.mindfulselfcompassion.org/meditations downloads.php
- Resources for Gratitude Practice
 - Gratitude Journal
 - https://itunes.apple.com/app/gratitude-journaloriginal/id299604556?mt=8
 - Gratitude 365
 - http://gratitude365app.com/
 - Psycho-Oncology Guided Mindfulness and Relaxation Recordings
 - http://cancer.ucsf.edu/support/psycho-oncology/resources

References

The information in this guide was gathered in part from the following sources as well as from the clinical team at Baptist MD Anderson Cancer Center:

- MD Anderson Cancer Center's Patient Education Materials
- MD Anderson Cancer Prevention Center www.mdanderson.org/prevention
- MD Anderson At the Table Cookbook <u>www.mdanderson.org/recipes</u>
- Fruits & Veggies-More Matters <u>www.fruitsandveggiesmorematters.org</u>
- AICR www.aicr.org
- Academy of Nutrition and Dietetics http://www.eatright.org/Public/
- Center for Disease Control and Prevention www.cdc.gov/healthyweight/healthy eating/fruits vegetables.html
- Nutrition.gov <u>www.nutrition.gov</u>
- United States Department of Agriculture's Nutrient Data Laboratory https://ndb.nal.usda.gov/ndb/
- Ainsworth BE, et al. The Compendium of Physical Activities Tracking Guide. Healthy
 Lifestyles Research Center, College of Nursing & Health Innovation, Arizona State
 University. Retrieved August 9, 2012 from the World Wide Web.
 https://sites.google.com/site/compendiumofphysicalactivities/
- The Healthy Mind, Healthy Body Handbook by David Sobel