The Weight is Over:
Strategies to Assist with Weight Management Following Breast Cancer Diagnosis and Treatment

Presented by: Lauren Fay, RD, CSO, CNSC
Created in collaboration with: Drucilla Brethwaite, MSW, LCSW
Objectives

- Identify factors that influence weight management, as well as the scope and impact of overweight/obesity BMI on breast cancer survivor outcomes

- Review evidence based diet/nutrition, physical activity, and behavioral strategies that help support healthy weight loss for breast cancer survivors

- Provide tools for breast cancer survivors successfully achieve weight loss goals
Background:

- Research for the prevention on cancer occurrence and outcomes has long focused on lifestyle interventions given their inherent ability to be altered

- It has become increasingly evident that there is increased risk of multiple cancer types due to elevation in adipose (fat) tissue

(American Institute for Cancer Research, 2018)
The connection between having overweight/obese BMI measurements in women before, during, and after breast cancer diagnosis contributing to increased risk for second primary breast cancer and mortality has been well documented (Azard, 2014; Chan, 2014; World Cancer Research Fund, 2018).
Identifying if successful weight loss in breast cancer survivors does in fact decrease occurrence of second primary occurrence and increase survival in breast cancer survivors is currently being investigated.

Randomized phase III trial evaluating the role of weight loss in adjuvant treatment of overweight and obese women with early breast cancer (Alliance A011401): study design.


(Ligibel, 2017)
How does Adipose Tissue (fat) impact cancer risk?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex Steroid Hormones</td>
<td>Fat tissue is the main site of estrogen synthesis in postmenopausal women. High levels of estrogen are associated with postmenopausal breast and endometrial cancers and may impact other cancers. Lower testosterone levels in obese men may impact prostate cell differentiation.</td>
</tr>
<tr>
<td>Growth Factors</td>
<td>Obesity increases levels and bioavailability of growth factors such as insulin and IGF-1, which can increase cell proliferation, inhibit cell death, and may promote the growth of certain cancers, such as tumors of the endometrium, kidney, and pancreas.</td>
</tr>
<tr>
<td>Adipocytokines</td>
<td>Leptin promotes cell growth. It’s secreted by fat cells, and blood levels are higher in obese people. It’s also an inflammatory factor. Blood levels of adiponectin, which may have antiproliferative effects, are lower in obese people.</td>
</tr>
<tr>
<td>Inflammatory Factors</td>
<td>Obese people often have chronic low-level inflammation, which may contribute to the initiation and progression of cancer and has been associated with increased risk.</td>
</tr>
<tr>
<td>Health Conditions</td>
<td>Overweight and obesity raise the risk of conditions such as type 2 diabetes, gastroesophageal reflux disease, and gallstones, which are associated with higher cancer risk.</td>
</tr>
</tbody>
</table>

**Resources**


(Thalheimer, 2017)
As of January 2019, there are more than 3.1 million women with a history of breast cancer in the U.S. This includes women currently being treated and women who have finished treatment.

Weight gain following breast cancer diagnosis has been observed as early as 1978, with increased rates of weight gain in comparison to disease free women.

It is been estimated 66% of breast cancer survivors are overweight or obese.

What factors influence weight management after breast cancer diagnosis?

<table>
<thead>
<tr>
<th>Outside Our Control</th>
<th>WITHIN Our Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Treatment or medication side effects</td>
<td>• Diet:</td>
</tr>
<tr>
<td>• Hormone changes (both naturally occurring and medication induced)</td>
<td>• Quantity</td>
</tr>
<tr>
<td>• Diet habits prior to diagnosis</td>
<td>• Quality</td>
</tr>
<tr>
<td>• Stress*</td>
<td>• Physical activity:</td>
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<tr>
<td></td>
<td>• Frequency</td>
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<td></td>
<td>• Type</td>
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<td></td>
<td>• Stress*</td>
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</tbody>
</table>
Comprehensive Approach to Addressing Weight Loss

Nutrition

Physical Activity

Behavioral Techniques
Stress Management

Patient

Pain

Role changes

Legal issues

Spiritual questions

Vomiting

Family

Cognition

Finances

Fatigue

Nausea

Work

Family

Finances

Fatigue

Nausea

Spiritual questions

Role changes

Pain

Legal issues

Vomiting
Cancer is Unpredictable

CURED??

Did Treatment work??

Doomed to die??

Scan tomorrow??

How did I get this??
Cortisol is a steroid hormone, in the glucocorticoid class of hormones (cortisone, dexamethasone etc.)

Increased cortisol levels have the potential to increase appetite

Higher cortisol, insulin, and chronic stress can be a contributing factors for future weight gain

(Chao, 2017; Harvard Health, 2018)
Why is stress management important?

**Physical**
- Decreased short-term memory
- Decreased concentration
- Increase cardiac/pulmonary symptoms
- Decrease in libido
- Frequent colds viral infections
- Skin rashes

**Psychological**
- Fearfulness
- Anxiety
- Vulnerability
- Sadness
- Numbness
- Agitation
- Depression

**Behavioral**
- Crying
- Outbursts
- Changes in eating
- Changes in sleeping
- Decreased exercise
- Increase use alcohol/drugs
- Nervous habits
- Increased isolation
- Impacts relationships
In 2018, World Cancer Research Fund & American Institute for Cancer Research published their 3rd report:

“Diet, Nutrition, Physical Activity, and Cancer: a Global Perspective”

(World Cancer Research Fund/American Institute for Cancer Research, 2018)
To prevent cancer, people should aim to follow as many of the 10 Cancer Prevention Recommendations as possible. However, any change you make that works toward meeting the goals set out in the Recommendations will go some way to reducing your cancer risk.

**AICR RECOMMENDATIONS FOR CANCER PREVENTION**

- **Eat a diet rich in whole grains, vegetables, fruits and beans**
  Make whole grains, vegetables, fruits and pulses (legumes) such as beans and lentils a major part of your usual daily diet.

- **Limit consumption of red and processed meat**
  Eat no more than moderate amounts of red meat, such as beef, pork and lamb. Eat little, if any, processed meat.

- **Limit consumption of “fast foods” and other processed foods high in fat, starches or sugars**
  Limiting these foods helps control calorie intake and maintain a healthy weight.

- **For mothers: Breastfeed your baby, if you can**
  Breastfeeding is good for both mother and baby.

- **After a cancer diagnosis: Follow our recommendations, if you can**
  Check with your health professional about what is right for you.

**A Blueprint to Beat Cancer**

- **Be a healthy weight**
  Keep your weight within the healthy range and avoid weight gain in adult life.

- **Be physically active**
  Be physically active as part of everyday life – walk more and sit less.

- **Limit consumption of sugar–sweetened drinks**
  Drink mostly water and unsweetened drinks.

- **Limit alcohol consumption**
  For cancer prevention, it's best not to drink alcohol.

- **Do not use supplements for cancer prevention**
  Aim to meet nutritional needs through diet alone.

Not smoking and avoiding other exposure to tobacco and excess sun are also important in reducing cancer risk. Following these Recommendations is likely to reduce intakes of salt, saturated and trans fats, which together will help prevent other non-communicable diseases.
• Plant based diet eating for weight loss

How do plant based diets promote weight loss?

High Fiber Content + Low Calorie Content = SATIETION for LESS CALORIES
Low calorie-dense foods include:
- Oatmeal, brown rice and whole-grain pastas and legumes like lentils and beans
- Most vegetables and fruits
- Other low-calorie dense foods include broth-based soups and plain nonfat yogurt

Medium calorie-dense foods include:
- Whole-grain bread, lean meat, poultry and fish

High calorie-dense foods:
- Contain high amounts of added fat, such as chips and other fried foods like French fries
- Are made with high amounts of added sugar and fat, such as cookies, candy and rich desserts
- Contain little fiber, such as processed breads, cereals and snack foods
- Are naturally high in fat, such as cheeses and high-fat meats like bacon
Beverage recommendations:

- Aim to consume no added sugar containing beverages:
  - Water (can flavor with fresh fruit/herbs for flavor)
  - Unsweetened tea/ice tea
  - Unsweetened coffee
Daily caloric intake recommendations:

- Creating a calorie deficit of 500-750 kcal per day should promote weight loss

- Journaling can help stay within a caloric goal to promote weight loss*
Low Fat or Low Carb?

- Research shows a diet that allows you reduce your overall caloric intake is the most effective for long term, successful weight loss

- Severe restriction of any macronutrient (fat, protein, carbohydrate) is unlikely to be sustainable overtime

(Gardener, 2018)
Eating Pattern Recommendations:

- There is no ‘perfect’ diet pattern that is ideal for everyone.

- However, going long periods of time between meals while awake can result in becoming excessively hungry and overeating at meal time.
  - 3 meals per day spread out at even time intervals when awake is ideal.

- Using hunger signals to help establish the best pattern for you ideal.
Eating Pattern Recommendations:

“Should I be fasting?”

Fasting less than 13 hours per night was associated with an increase in the risk of breast cancer recurrence compared with fasting 13 or more hours per night.
Research indicates reduction in caloric intake from diet is a more important factor in creating caloric deficit to promote weight loss.

However, physical activity is critical to maintaining weight loss, and ensuring weight loss is predominantly from adipose tissue, rather than lean body mass. (Swift, 2014)
Recommended goal for physical activity is 150 minutes per week of moderate physical activity

Moderate Physical Activities

- Walking briskly (a 15-minute mile)
- Light yard work (raking/bagging leaves or using a lawn mower)
- Actively playing with children
- Biking at a casual pace
- Hiking

(American Institute for Cancer Research, 2018)
Tools for Weight Loss Success
Weight Loss Workbook
The 6-Week Plan to Train Your Brain to Think Like a Thin Person
- counteract sabotaging thoughts
- overcome weight loss obstacles
- succeed on any nutritious diet

Judith S. Beck, Ph.D.
Beck Institute for Cognitive Therapy and Research
Clinical Associate Professor of Psychology in Psychiatry
University of Pennsylvania
Tools

- Goals
- Bathroom Scale
- What am I thinking?
- Monitoring Chart
- Priority Chart
- Exercise Program
- Daily Schedule
- Today’s To-Do List
- Daily Food Plan Chart
- Journal
- Distraction Techniques Chart
- Response Cards
Cognitive Behavioral Therapy

- Situation
- Thought
- Feeling
- Behavior
Automatic Thoughts
• “I worked so hard today, I deserve this.”
• “I won’t look at the scale.”
• “I really want to eat_____ or eat more of ____.”
• “I already blew it today, so I’ll just keep eating and begin again tomorrow.”
• “I’d rather just see how things go instead of planning.”
“Between stimulus and response
There is a space.

In that space is our power
To choose our response.

In our response lies our
Growth and our freedom”

Viktor Frankl
Mind-Body Approaches

- Breathing
- Guided Imagery/Visualization
- Meditation
- Biofeedback
- Mindfulness
- Progressive Muscle Relaxation
- Movement (Yoga, Tai Chi, Feldenkrais, Pilates)
- Hypnosis/Hypnotherapy
- Aromatherapy
- Music
- Expressive Arts
Mind Full, or Mindful?
Mindfulness means paying attention in a particular way:

- on purpose
- in the present moment
- non-judgmentally

Jon Kabat-Zinn
Mindful Eating

- Food selection; appreciate your food
- Meal preparation
- Setting/Environment
- Intention
- Eat with others/eat sitting down
- Eat slowly without distraction
- **Listen to hunger cues**
- Distinguish between actual hunger vs. non-hunger triggers for eating
- Engage your senses by noticing colors, smells, sounds, textures, tastes
Benefits

- Increase weight loss
- Helps to recognize emotions and physical sensations
- Decrease response to inappropriate cues for eating such as advertising, boredom or anxiety
- Gain control over eating habits

Dalen, J. et al. (2010).
<table>
<thead>
<tr>
<th>Question</th>
<th>N/A</th>
<th>Never/ rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Usually/ Always</th>
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</thead>
<tbody>
<tr>
<td>1. I eat so quickly that I don’t taste what I’m eating.</td>
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<td>2. When I eat at “all you can eat” buffets, I tend to overeat.</td>
<td>□ I don’t eat at buffets.</td>
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<td>3. At a party where there is a lot of good food, I notice when it makes me want to eat more food than I should.</td>
<td>□ Food ads never make me want to eat.</td>
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<td>4. When a restaurant portion is too large, I stop eating when I’m full.</td>
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<td>5. My thoughts tend to wander while I am eating.</td>
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<td>6. When I’m eating one of my favorite foods, I don’t recognize when I’ve had enough.</td>
<td>□ I never eat candy or popcorn.</td>
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<td>7. If it doesn’t cost much more, I get the larger size food or drink regardless of how hungry I feel.</td>
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<td>8. I notice when just going into a movie theater makes me want to eat candy or popcorn.</td>
<td>□ I never eat candy or popcorn.</td>
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<td>9. I notice when there are subtle flavors in the foods I eat.</td>
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<td>10. I notice when there are leftovers that I like, I take a second helping even though I’m full.</td>
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<td>11. I notice if it makes me feel relaxed.</td>
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<tr>
<td>12. When I eat a big meal, I notice if it makes me feel heavy or sluggish.</td>
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</tbody>
</table>

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<th>Sometimes</th>
<th>Often</th>
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</tr>
</thead>
<tbody>
<tr>
<td>15. I stop eating when I’m full...even when eating something I love.</td>
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<td>16. I appreciate the way my food looks on my plate.</td>
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<td>17. When I’m feeling stressed at work, I’ll go find something to eat.</td>
<td>□ I don’t work.</td>
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<tr>
<td>18. If there’s good food at a party, I’ll continue eating even after I’m full.</td>
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<td>19. When I’m sad, I eat to feel better.</td>
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<tr>
<td>20. I notice when foods and drinks are too sweet.</td>
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<td>□</td>
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</tr>
<tr>
<td>21. Before I eat I take a moment to appreciate the colors and smells of my food.</td>
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<td>□</td>
</tr>
<tr>
<td>22. I taste every bite of food that I eat.</td>
<td>□ I never eat when I’m not hungry.</td>
<td>□</td>
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<tr>
<td>23. I recognize when I’m eating and not hungry.</td>
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<tr>
<td>24. I notice when I’m eating from a dish of candy just because it’s there.</td>
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<tr>
<td>25. When I’m at a restaurant, I can tell when the portion I’ve been served is too large for me.</td>
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<tr>
<td>26. I notice when the food I eat affects my emotional state.</td>
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<tr>
<td>27. I have trouble not eating ice cream, cookies, or chips if they’re around the house.</td>
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<tr>
<td>28. I think about things I need to do while I am eating.</td>
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</tbody>
</table>
Tools for Weight Loss Success: Cognitive Behavioral Journaling

- What did I do today to avoid unplanned eating?
- If I deviated, what happened?
- What thinking mistakes did I make?
- What can I learn from this for next time?
Challenge Thoughts

- What is the effect of continuing to have this thought?
- What could happen if I changed my thinking?
- What would I tell a friend in the same position?
- What should I do next?

- Am I truly hungry?
- It’s ok to feel anxious or fearful sometimes.
- Just because I see it, doesn’t mean I have to eat it.
- Do I need second helpings?
- Is this what my body really needs?
“Oh, well...” Technique

Term used for accepting a bad situation or disappointment.

(Beck, 2017)
• Every hour: “Do I feel hungry right now?”
• Hungry: At least a couple of hours since you last ate, stomach feels empty, and you could feel satisfied if you ate a range of foods
• Desire: Stomach feels reasonably comfortable, but you just feel like eating
• Craving: A strong urge to eat a particular food or kind of food, with a yearning in your mouth throat or body

(Beck, 2017)
### Priority Chart

<table>
<thead>
<tr>
<th>Essential Activities</th>
<th>Highly Desirable</th>
<th>Desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>Work in garden</td>
<td>TV</td>
</tr>
<tr>
<td>Food shopping</td>
<td>Clothes shopping</td>
<td>Manicures</td>
</tr>
</tbody>
</table>

(Beck, 2017)
<table>
<thead>
<tr>
<th>do it anyway</th>
<th>it’s okay to disappoint people</th>
</tr>
</thead>
<tbody>
<tr>
<td>Even if I don’t feel like using a diet skill, I have to do it anyway. If I do only what I feel like doing, I won’t be able to lose weight and keep it off.</td>
<td>I’m entitled to do what I have to do to lose weight, as long as I am nicely assertive.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>give myself credit</th>
<th>say no to extra food</th>
</tr>
</thead>
<tbody>
<tr>
<td>I deserve credit EVERY TIME I exercise. I deserve credit EVERY TIME I practice a dieting skill. I deserve credit EVERY TIME I stick to my plan.</td>
<td>Get rid of extra food. It’ll be wasted in the trash can or in my body. Either way, it’s wasted.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>eat mindfully</th>
<th>put dieting first</th>
</tr>
</thead>
<tbody>
<tr>
<td>I need to eat slowly and mindfully while sitting down—EVERY SINGLE TIME.</td>
<td>I have to plan my life around exercise and dieting activities, not vice versa. I deserve to put myself first.</td>
</tr>
</tbody>
</table>

(Beck, 2017)
Setting a Weight Goal

- Maintain body mass index (BMI) within normal range: 18.5-24.9 kg/m^2
  - Body mass index = Weight (kilograms)/Height (meters) ^ 2

(World Cancer Research Fund/American Institute for Cancer Research, 2018)
<table>
<thead>
<tr>
<th>WEIGHT (pounds)</th>
<th>100</th>
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<td>HEIGHT (ft-inch)</td>
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BODY MASS INDEX (BMI)
Setting a Weight Goal

- Short term, small weight loss goals is often a more effective way to work towards achieving a larger weight loss goal

- Weight loss between 5-10% is likely to produce health benefits, such as improvements in blood pressure, blood cholesterol, and blood sugar

- Breast cancer survivors who achieved ≥5% weight loss demonstrated significant improvements in indices of insulin resistance

- 5-10% of your current body weight is a reasonable weight loss goal to begin with, making incremental changes as your weight loss progresses

(Backburn, 1995; NIH, 1998; Dittus, 2018)
Other Measurements of Weight Loss

- Waist Circumference

- Abdominal fat is more likely to be visceral fat (rather than subcutaneous) which can have more negative health consequences and contribute to chronic inflammation

- Recommend weight measurement for women is 31.5 inches

(American Institute for Cancer Research, 2011)
Plant based, reduced calorie recipe resources ideas:

- [www.aicr.org/healthyrecipes](http://www.aicr.org/healthyrecipes)
- [www.elliekrieger.com/recipes/](http://www.elliekrieger.com/recipes/)
- [www.cookinglight.com](http://www.cookinglight.com)
- [www.eatingwell.com](http://www.eatingwell.com)
Tools for Weight Loss Success: **Food Journaling**

- **Pen & Paper**
- **Electronic:**
  - Myfitnesspal
  - WW (Weight Watchers)
  - Loseit!
Homework
- Support and Accountability
Tools for Weight Loss Success: Phone Check-In’s

- Telephone delivered lifestyle intervention counseling has been shown to significantly improve weight loss and physical activity for breast cancer survivors

(Goodwin, 2014; Fazzino, 2017)
Tools for Weight Loss Success: Support Groups

- Research shows participants appreciate working in a group setting with other breast cancer survivors towards diet, physical activity, and weight loss goals

(Balneaves, 2014)
Appointments can be made with Oncology Dietitians at Inova Schar Cancer Institute through the Life with Cancer website [www.lifewithcancer.com](http://www.lifewithcancer.com) or by calling the Life with Cancer Connect line: 703-206-5433 (LIFE)
More Questions?

Feel free to contact me!

Lauren.Fay@inova.org
Questions?


