Food for Thought: 
*Nutrition Recommendations for Cancer Prevention*

Inova Schar Cancer Institute

*November 9th, 2019*
What makes it so hard to know what to eat?
Objectives

• Provide evidence based recommendations for diet and exercise to help reduce risk of cancer occurrence and recurrence

• Discuss and help clarify common misconceptions in regards to diet and cancer to help alleviate confusion (and stress!)

• Provide resources for reliable information, recipes, and nutrition counseling
In 2018, World Cancer Research Fund & American Institute for Cancer Research published their 3rd report:

“Diet, Nutrition, Physical Activity, and Cancer: a Global Perspective”
1: Be a Healthy Weight

Keep your weight within the healthy range and avoid weight gain in adult life

- Maintain body mass index within normal range: 18.5-24.9 kg/m^2
- Avoid weight gain (measured as body weight or waist circumference) throughout adulthood

1: Be a Healthy Weight

What You Need to Know About Obesity and Cancer

After not smoking, being at a healthy weight is the most important thing you can do to prevent cancer.

Overweight and obesity increase risk for:

- Esophageal Cancer
- Liver Cancer
- Kidney Cancer
- Gallbladder Cancer
- Pancreatic Cancer
- Colorectal Cancer
- Advanced Prostate Cancer
- Postmenopausal Breast Cancer
- Ovarian Cancer
- Endometrial Cancer

ACR estimates that excess body fat is a cause of approximately 128,200 U.S. cancer cases every year.

And yet...
7 in 10 Americans are currently overweight or obese.
69% of all Americans are even aware of the obesity-cancer link.

And ...
Only about half of all Americans are even aware of the obesity-cancer link.

Protect Yourself!

Move More
Eat Smart

For tips on getting to, and staying at, a healthy weight, visit www.aicr.org
1: Be a Healthy Weight

Why?? How does being overweight contribute to cancer risk?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mechanism</th>
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<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>
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<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>
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<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>
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<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>
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<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>
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</table>

RESOURCES
2. BERGER NA. OBESITY AND CANCER PATHOGENESIS. ANN NY ACADE SCI. 2014,1311:97-76.
2: Be Physically Active

Be physically active as part of everyday life

- Be moderately physically active at least ~30 minutes/day, 5 days per week
- Limit sedentary habits

3: Eat a Diet Rich in Wholegrains, Vegetables, Fruit and Beans

Make whole grains, vegetables, fruit, and pulses (legumes) such as beans and lentils a major part of your usual daily diet

- Consume a diet that provides 30 grams/day of fiber from food sources
- Include at most meals foods containing whole grains, non-starchy vegetables, fruit and legumes

3: Eat a Diet Rich in Wholegrains, Vegetables, Fruit and Beans

• Eat a diet high in all types of plant foods including at least 5 servings of non-starchy vegetables and fruit daily

3: Eat a Diet Rich in Wholegrains, Vegetables, Fruit and Beans

- Which fruits and vegetables are the ‘best’ to eat?

ALL OF THEM!!!
3: Eat a Diet Rich in Wholegrains, Vegetables, Fruit and Beans

- I need ideas!!!
3: Eat a Diet Rich in Wholegrains, Vegetables, Fruit and Beans

- **Ideas of ways to increase your ‘plant’ intake:**
  - Check out a local farmers market or sign up for a CSA ([www.localharvest.com](http://www.localharvest.com))
  - Make a goal of trying one different fruit or vegetable per week
  - Swap common meat portions of a dish for vegetables:
    - Black Bean ‘Burgers’
    - Buffalo Cauliflower or Cauliflower ‘Steaks’
How do plant based diets promote weight loss?

High Fiber Content + Low Calorie Content = SATIETY (TION) for LESS CALORIES

3: Eat a Diet Rich in Wholegrains, Vegetables, Fruit and Beans
**Nutrition**

*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

Plant Based Recipes

American Institute for Cancer Research’s Healthy Recipes

www.aicr.org/healthyrecipes
4: Limit Consumption of ‘Fast Foods’ and other processed foods

Limiting these foods helps control calorie intake and maintain a healthy weight

- Limit consumption of processed foods high in fat, starches, or sugars- including ‘fast foods’; many pre-prepared dishes, snacks, bakery foods and desserts; and confectionary (candy).

5: 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.

- If you eat red meat, limit consumption to **no more than 18 oz per week**

- Definition of ‘processed meat’: preserved by smoking, curing or salting, or addition of chemical preservatives (examples: ham, bacon, pastrami, sausages, hot dogs and deli meats are all considered processed meat).

6: Limit Consumption of Sugar Sweetened Drinks

Drink mostly water and unsweetened drinks

- Do not consume sugar sweetened beverages

Speaking of sugar.....

does it feed cancer?
For cancer prevention, it is best not to drink alcohol

If you do choose to consume alcohol, it is recommended to consume less than 1 drink/day for women, and 2 drinks per day for men

8: Do Not Use Supplements for Cancer Prevention

Aim to meet nutritional needs through diet alone

- High dose dietary supplements are not recommended for cancer prevention

The effect of vitamin E and beta carotene on the incidence of lung cancer and other cancers in male smokers.

Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group.

Vitamin E and the risk of prostate cancer: the Selenium and Vitamin E Cancer Prevention Trial (SELECT).

Mothers to breastfeed; children to be breastfed

- Aim to breastfeed infants exclusively up to 6 months and continue with complementary feeding thereafter.

Follow the recommendations for cancer prevention

- *If able to do so***, aim to follow the recommendations for diet, healthy weight, and physical activity

- All cancer survivors should receive nutritional care from an appropriately trained professional

<table>
<thead>
<tr>
<th>Oncology Dietitians at Inova</th>
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<tbody>
<tr>
<td>Jennifer Ahmed, RD, CNSC</td>
<td>Caitlin Benda, MBA, MS, RD, CSO</td>
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<tr>
<td>Lauren Fay, RD, CSO, CNSC</td>
<td>Taylor Horne, RD, CSO</td>
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<tr>
<td>Angie Lord, RD</td>
<td>Kirsten Martinson, RD</td>
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<td>Sara Negron, MS, RD, CSO</td>
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Appointments can be made through the Inova Life with Cancer website [www.lifewithcancer.com](http://www.lifewithcancer.com) or by calling the Inova Life with Cancer Connect line: 703-206-5433 (LIFE)
Do these recommendations work?

A large prospective population-based cohort study published in July 2018 indicates for each AICR recommendation followed is associated with a 12% reduction of risk for all cancer types.\(^4\)
• These guidelines emphasize a holistic approach to diet, rather than individual foods and nutrients

“It appears increasingly unlikely that specific foods, nutrients, or other components of foods are themselves important singular factors in causing or protecting against cancer”
Tools for Weight Management 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
Cognitive Behavioral Therapy & Weight Management

Situation — Thought — Feeling — Behavior
Automatic Thoughts
Sabotaging 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 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, 2010)
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?
Nutrition Journaling

• **Pen & Paper**
• **Electronic:**
  - Myfitnesspal
  - WW (Weight Watchers)
  - Loseit!
## Priority Chart

<table>
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<tr>
<th>Essential Activities</th>
<th>Highly Desirable</th>
<th>Desirable</th>
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<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>
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(Beck, 2017)
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

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

(Blackburn, 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 and <37 inches for men
Reliable Nutrition Resources

- **American Institute for Cancer Research:**
  [www.aicr.org](http://www.aicr.org)

- **American Cancer Society:**
  [www.cancer.org](http://www.cancer.org)

- **Academy of Nutrition and Dietetics:**
  [www.eatright.org](http://www.eatright.org)

- **Oncology Dietetics Practice Group**
  [www.oncologynutrition.org](http://www.oncologynutrition.org)

Reputable resources for the latest research, information, pamphlets, and recommendations regarding nutrition and cancer.
Finding a Registered Dietitian

- Academy of Nutrition and Dietetics: [www.eatright.org](http://www.eatright.org)
  - Click on “find an expert”
  - Search by zip code and specialty
More Questions?

Contact: Emily.Biely@inova.org; Lauren.Fay@inova.org; Angela.Lord@inova.org; Sara.Negron@inova.org


