


The Food We Eat: Nutrition's Role in Cancer Prevention and Survivorship

Outpatient Oncology Dietitian
Rebecca Beaudoin, RDN, LMNT




University of Nebraska
Medical Center
COLLEGE OF ALLIED HEALTH PROFESSIONS

A little about me...


Dietitian for 24 years

I work in the Buffet Cancer Center in Outpatient Oncology, and my areas of focus are survivorship and cancers of the breast, gynecological, lung, skin, and brain.




Mom of a 6-year-old.

Loves: yoga, gardening, being outside, volunteering, presenting



Conflict of Interest

- None to disclose



Objectives

- Describe the American Institute for Cancer Research's lifestyle guidelines for cancer prevention and how to incorporate into practice and/or your own personal health.
- Discuss how to incorporate components of a plant-based diet into your daily life and/or when educating your patients on preventative care.
- Identify the relationship between physical activity and cancer risk and how this is related to overall health management.



Where can I go for reliable information?

- **American Institute for Cancer Research (aicr.org) and the World Cancer Research Fund (wcrf.org)**
 - Mission: Champion the latest and most authoritative scientific research from around the world on cancer prevention and survival through diet, weight and physical activity so that we can help people make informed lifestyle choices to reduce their cancer risk.
 - **Third Expert Report:** The world's most comprehensive report on lifestyle and cancer prevention.
 - **Cancer Prevention Recommendations:** summarized/drawn from the Third Expert Report



WCRF/AICR Cancer Prevention Recommendations

(World Cancer Research Fund)
(American Institute of Cancer Research)





Cancer and Physical Activity

RECOMMENDATION
Be physically active

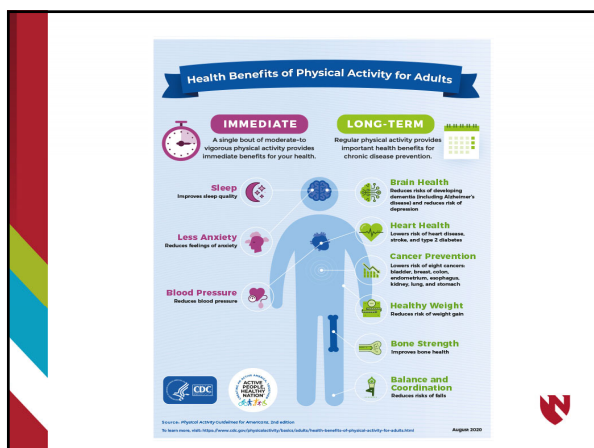
Be physically active as part of everyday life – walk more and sit less

- Be at least moderately physically active¹, and follow or exceed national guidelines
- Limit sedentary habits

¹ Moderate physical activity increases heart rate to about 60 to 75 per cent of its maximum.

- Moderate:** walking, household chores, recreational cycling, swimming or dancing
- Vigorous:** running, competitive sports, swimming, aerobics

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Bringing the Recommendation to Life

- Think of it as "activity, not exercise."
- Move more, sit less
- Something is better than nothing.
- Small goals really do add up, try 10 minutes to start
- More than the scale
- 30 minutes, most days
- Make it fun, something you enjoy, don't judge your activity
- Partner up
- Plan- how does this adjust seasonally?
- Track- wearable device, track time, etc.
- Try something new
- Standing desk
- Find an app that works for you



Cancer and Whole Grains and Fiber

Strong Evidence

- Whole grains protect against colorectal cancer
- Fiber protects against colorectal cancer and weight gain
- Non-starchy vegetables and fruit help protect against aerodigestive cancers

RECOMMENDATION

Eat a diet rich in wholegrains, vegetables, fruit and beans


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

- Consume a diet that provides at least 30 grams per day of fiber* from food sources
- Include in most meals foods containing wholegrains, non-starchy vegetables, fruit and pulses (legumes) such as beans and lentils
- Eat a diet high in all types of plant foods including at least five portions or servings (at least 400 grams or 10 ounces in total) of a variety of non-starchy vegetables and fruit every day
- If you eat starchy roots and tubers as staple foods, eat non-starchy vegetables, fruit and pulses (legumes) regularly too if possible

* Recommended for adults
















Some Evidence

- Fruits and vegetables protect against many cancers and weight gain



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HIGH FIBER FOODS

<p>6g Fiber</p> <p>Simple Egg Sandwich</p> <p>Calories 348 Fat 21g Carbs 27g Protein 18g</p>		<p>6g Fiber</p> <p>Apple & Peanut Butter</p> <p>Calories 285 Fat 15g Carbs 27g Protein 19g</p>		<p>7g Fiber</p> <p>Chicken & Black Bean Enchiladas</p> <p>Calories 308 Fat 7g Carbs 49g Protein 27g</p>	
<p>14g Fiber</p> <p>Mediterranean Barley with Chickpeas</p> <p>Calories 329 Fat 7.5g Carbs 57g Protein 17g</p>		<p>6g Fiber</p> <p>Split peas</p> <p>5.5 g / 1/2 medium</p>		<p>6g Fiber</p> <p>Barley</p> <p>6.0 g / 1 cup</p>	
<p>6g Fiber</p> <p>Simple Egg Sandwich</p> <p>Calories 348 Fat 21g Carbs 27g Protein 18g</p>		<p>5.5g Fiber</p> <p>Pear</p> <p>5.5 g / 1 medium</p>		<p>4.4g Fiber</p> <p>Apple</p> <p>4.4 g / 1 medium</p>	
<p>5.5g Fiber</p> <p>Bran flakes</p> <p>5.5 g / 1 cup</p>		<p>10.3g Fiber</p> <p>Artichoke</p> <p>10.3 g / 1 medium</p>		<p>3.1g Fiber</p> <p>Banana</p> <p>3.1 g / 1 medium</p>	
<p>5.5g Fiber</p> <p>Artichoke</p> <p>5.5 g / 1 cup</p>		<p>15g Fiber</p> <p>Black beans</p> <p>15 g / 1 cup</p>		<p>5.1g Fiber</p> <p>Broccoli</p> <p>5.1 g / 1 cup</p>	

Images: MyFitnessPal.com; vectorstock.com

Walking to a Plant Based Lifestyle

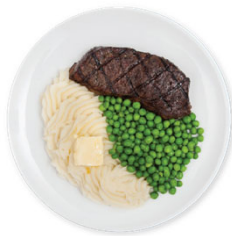


What does "Plant-Based" Mean?

- "Plant forward:" focus on foods that come from plants- fruit, veggies, whole grains, beans, etc.
- Does not necessarily mean vegan or vegetarian.
- Plant foods are high in fiber, nutrients, phytochemicals (natural substances) that may help prevent cancer.



The "Standard American Plate"



The "Transitional Plate"



The "New American Plate"




One Step Further...Plant Based Proteins



Growing the Plants in your Day

- **How about two vegetables at a meal?** Even better if they're different colors
- **Build a meal around a salad.** Fill a bowl with salad greens, add at least 2 other vegetables (carrots, cabbage, etc), and top with herbs, beans, nuts, etc.
- **Think of meat as a garnish.**
- **Choose healthy fats:** olive oil, olives, nuts and nut butters, seeds, and avocados
- **Try a meatless Monday.** Build these meals around beans, whole grains, and vegetables.
- **Start the day with whole grains.** Try oatmeal or even quinoa and top with nuts/fruit
- **Eat fruit for dessert.** Sample in-season for peak flavor.



Cancer and fast food


RECOMMENDATION

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

icon Limit consumption of processed foods high in fat, starches or sugars – including 'fast foods'; many pre-prepared dishes, snacks, bakery foods and desserts; and confectionery (candy)

* Fast foods are readily available convenience foods that tend to be energy dense and are often consumed frequently and in large portions.



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Cancer and Red/Processed Meat

Strong Evidence

- Red meat and processed meat are causes of colorectal cancer
- <= 18 oz chosen to balance benefits of nutrients and risks
- Processed meats-high salt and cooking methods that generate carcinogens


RECOMMENDATION

Limit consumption of red and processed meat

Eat no more than moderate amounts of red meat¹, such as beef, pork and lamb. Eat little, if any, processed meat²

icon If you eat red meat, limit consumption to no more than about three portions per week. Three portions is equivalent to about 350 to 500 grams (about 12 to 18 ounces) cooked weight of red meat.³ Consume very little, if any, processed meat

¹ The term 'red meat' refers to all types of mammalian muscle meat, such as beef, veal, pork, lamb, mutton, bison and goat.
² The term 'processed meat' refers to meat that has been transformed through salting, curing, fermentation, smoking or other processes to enhance flavor or improve preservation.
³ Total grams of cooked dry weight is highly dependent on 700-750 grams of raw meat, but the exact conversion depends on the fat of meat, the proportion of lean meat and fat, and the method and degree of cooking.



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Cancer and Sugar Sweetened Beverages

RECOMMENDATION
Limit consumption of sugar sweetened drinks
Drink mostly water and unsweetened drinks


GOAL Do not consume sugar sweetened drinks¹

- Liquids with added sugars
 - Sucrose, corn syrup, honey, fruit juices/concentrate
 - Soda, sports drinks, energy drinks, sweetened coffee/tea drinks
- Does not include artificial sweeteners



WCRF/AICR (4)

Diet Factors and Cancer



Increase risk:

- Red and processed meat
- Starchy/refined carbohydrates
- Increased added sugar/Sugar sweetened beverages

Decrease risk:

- Fruits and vegetables
- Whole grains and legumes


Sources: 4, 6

Cancer and Alcohol

RECOMMENDATION
Limit alcohol consumption
For cancer prevention, it's best not to drink alcohol

GOAL For cancer prevention, it's best not to drink alcohol

- Strong evidence:** Drinking alcohol is the cause of many cancers
 - Moderate alcohol (up to 2 drinks) may protect against kidney cancer – but far outweighed by many other strong increased risks
- "Drinking alcohol is not recommended for health benefit"**
 - If you choose to drink, do not exceed national guidelines



WCRF/AICR (4)

Cancer and Healthy Weight

RECOMMENDATION
Be a healthy weight
Keep your weight within the healthy range¹ and avoid weight gain in adult life

- GOAL** Ensure that body weight during childhood and adolescence projects towards the lower end of the healthy adult BMI range
- GOAL** Keep your weight as low as you can within the healthy range throughout life
- GOAL** Avoid weight gain (measured as body weight or waist circumference)² throughout adulthood

- **Healthy Weight:**
 - BMI 18.5-24.9 kg/m²
- **Waist Circumference**
 - Men: 37"
 - Women: 31.5"

WCRF/AICR (4)

Cancer and Supplements

- Try to meet nutritional needs through diet alone
- They can't provide the variety and synergy of nutrients and phytochemicals in food
- "Too much of a good thing isn't good"
- Not enough long-term data

RECOMMENDATION
Do not use supplements for cancer prevention
Aim to meet nutritional needs through diet alone

GOAL High-dose dietary supplements¹ are not recommended for cancer prevention - aim to meet nutritional needs through diet alone

¹ A diet supplement is a product intended to supplement the intake of dietary nutrients. However, to achieve levels of concentration of ingredients in other food components (except when it is clearly indicated through the label).

Breastfeeding and Cancer

RECOMMENDATION
For mothers: breastfeed your baby, if you can
Breastfeeding is good for both mother and baby

GOAL This recommendation aligns with the advice of the World Health Organization, which recommends infants are exclusively breastfed¹ for 6 months, and then up to 2 years of age or beyond alongside appropriate complementary foods

- **Strong evidence:** Breast feeding helps protect against breast cancer for mother and excess weight gain for baby
- Breastfeeding has many other health benefits

Cancer survivor diet recommendations



RECOMMENDATION

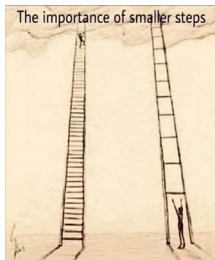
After a cancer diagnosis: follow our Recommendations, if you can

Check with your health professional what is right for you

- GOAL** All cancer survivors¹ should receive nutritional care and guidance on physical activity from trained professionals
- GOAL** Unless otherwise advised, and if you can, all cancer survivors are advised to follow the Cancer Prevention Recommendations as far as possible after the acute stage of treatment



Where to start???



- SMART goals
- "Goal Stacking"
- Every little step helps!
 - Adding a fruit and/or veggie to your day.
 - Ten minutes is better than none!
 - Meet yourself where you are at. What healthy habit are you willing/able to tackle?



Images: smartcaresoftware.com; ilshealth.com

Take Home Message?

- Excess body weight and obesity are causes of several cancers
- Nutrition and healthy lifestyle patterns can decrease risk of cancer and help prevent other diseases.
- Create life-long healthy living patterns and positive relationships with food!
- Remembering it's a process!



Images: pinterest.com

Recipes

Check out www.aicr.org/cancer-prevention/recipes/

[Roasted Spiced Chickpeas - American Institute for Cancer Research \(aicr.org\)](#)

[Creamy Broccoli Apple Salad - American Institute for Cancer Research \(aicr.org\)](#)



Roasted Chickpeas

Ingredients:

- 1 tsp ground cumin
- 1 tsp smoked sweet paprika
- 1/2 tsp garlic powder
- 1/2 tsp onion powder
- 1/8 tsp ground black pepper
- 1/8 tsp cayenned pepper
- 1 tsp salt
- 2 T extra virgin olive oil
- 1 can (15 oz) chickpeas (garbanzo beans), drained and rinsed



Directions:

- 1) Line baking pan with parchment paper and set aside.
- 2) In a medium bowl, whisk to combine spices. Whisk in oil.
- 3) Spread drained and rinsed chickpeas on paper towels and blot, making sure chickpeas are as dry as possible.
- 4) Add chickpeas to spice mixture, using your fingers to evenly coat with the mixture. Spread on prepared pan in one layer.
- 5) Bake chickpeas for 20 – 25 minutes at 400 degrees, stirring every 5 minutes, until crispy and firm. Cool on pan.



Creamy Broccoli Apple Salad

Ingredients:

- 4 cup broccoli florets
- ½ cup carrots, shredded
- ½ red onion, sliced thin
- 2 apples, diced
- ½ cup pecans, chopped
- ½ cup dried cranberries
- 1 cup plain Greek yogurt
- 2 T lemon juice
- 1 T honey
- Salt and pepper, to taste



Directions:

- 1) In a large bowl, combine first 6 ingredients.
- 2) In a separate bowl, whisk yogurt, lemon juice, honey.
- 3) Cobine yogurt mixture with fruit/veg mixture and toss well. Season with salt and pepper.
- 4) Chill until ready to serve



Want to learn more?

Virtual Cooking Class Available: **Fighting Inflammation with Fiber**

Thursday, Oct 20th, 4 – 4:30

https://unmc.zoom.us/webinar/register/2016627495820/WN_U1Q3pM2pS2QSE50hsQcuw



Friday, Oct 21st, 12 – 12:30

https://unmc.zoom.us/webinar/register/3716627496484/WN_YZlw6ByPSFWySX1qux80w



Thank you! Questions?



Image: foodallergyntexas.org



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