


# Fueling Your Journey: Nourishing Tips for Cancer Survivors

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## Conflict of Interest


- None to disclose



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# WCRF/AICR Cancer Prevention Recommendations

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



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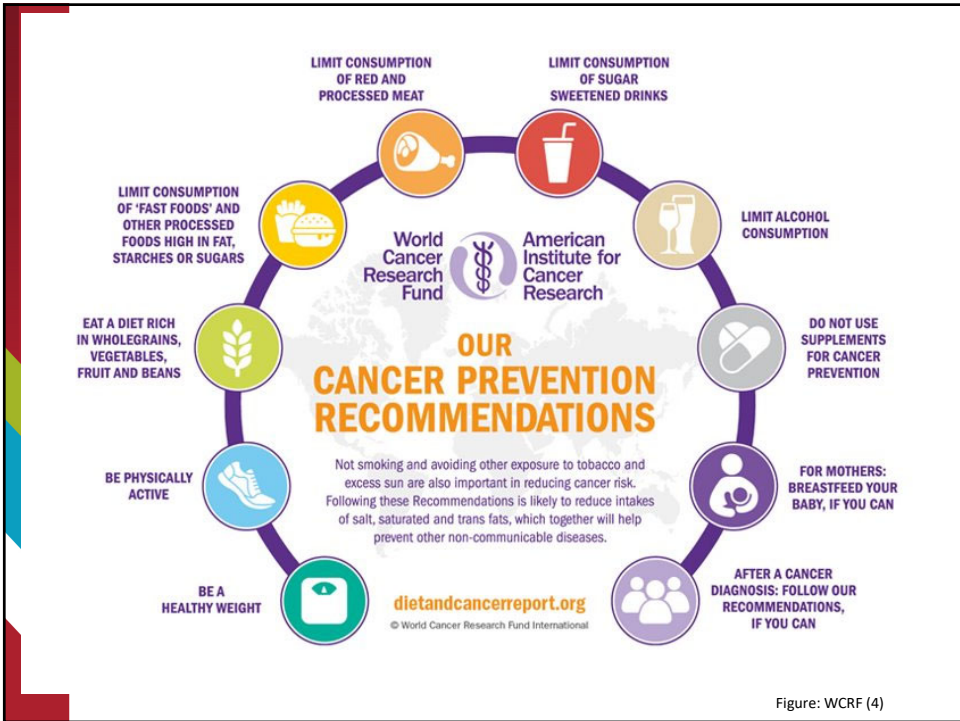


Figure: WCRF (4)

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## Cancer and Whole Grains and Fiber

**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 fibre<sup>1</sup> 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 15 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

<sup>1</sup> Measured by the AACC method.



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## Tips for Adding Fiber to Your Eating Plan


- Slowly increase the amount of fiber you eat to 25 to 35 grams per day.
- Eat whole grain breads and cereals. Look for choices with 100% whole wheat, rye, oats, or bran as the first or second ingredient.
- Enjoy a variety of grains such as brown rice, barley, oats, farro, and quinoa.
- Add dried beans and peas to casseroles or soups.
- Eat fruits and vegetables with peels or skins on.
- Choose whole fruits and vegetables instead of juices.
- Check the Nutrition Facts labels and try to choose products with at least 4 g dietary fiber per serving.
- Drink at least 8 cups of fluid per day. You may need even more fluid as you eat higher amounts of fiber. Fluid helps your body process fiber without discomfort.



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**6g Fiber**  
Calories: 369  
Fat: 21g  
Carbs: 27g  
Protein: 18g

**Simple Egg Sandwich**




### HIGH FIBER FOODS

**14g Fiber**  
Calories: 359  
Fat: 18g  
Carbs: 61g  
Protein: 11g

**Mediterranean Barley with Chickpeas**




**Pear**  
5,5 g. /1 medium



**Apple**  
4,4 g. /1 medium




**Broccoli**  
5,1 g. /1 cup




**6g Fiber**  
Calories: 285  
Fat: 16g  
Carbs: 31g  
Protein: 9g


**Apple & Peanut Butter**




**Split peas**  
5,5 g. /1 medium



**Barley**  
6,0 g. /1 cup




**Banana**  
3,1 g. /1 medium




**7g Fiber**  
Calories: 309  
Fat: 7g  
Carbs: 34g  
Protein: 27g


**Chicken & Black Bean Enchiladas**



**Bran flakes**  
5,5 g. /1 cup




**Artichoke**  
10,3 g. /1 medium



**Black beans**  
15 g. /1 cup





Images: MyFitnessPal.com; vectorstock.com

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## Well-Tolerated Sources of Fiber for Active Treatment



Whole grains: oatmeal, cheerios

Fruits: bananas, melons, canned fruits

Vegetables: canned green beans, canned carrots



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## Walking to a Plant-Based Lifestyle



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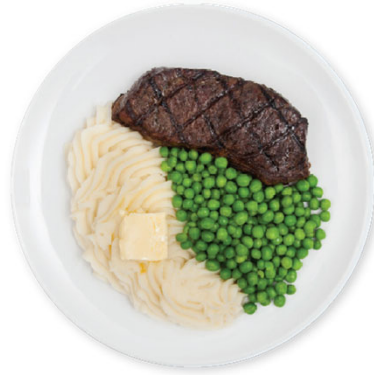
## What does "Plant-Based" Mean?

- "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 and phytochemicals (natural substances) that may help prevent cancer.



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## The "Standard American Plate"



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## The "Transitional Plate"



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## The "New American Plate"



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## One Step Further...Plant Based Proteins



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## 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.



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## Cancer and Physical Activity



### RECOMMENDATION

### Be physically active

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

- GOAL Be at least moderately physically active<sup>1</sup>, and follow or exceed national guidelines
- GOAL Limit sedentary habits

<sup>1</sup> 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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**Health Benefits of Physical Activity for Adults**

**IMMEDIATE**  
A single bout of moderate-to-vigorous physical activity provides immediate benefits for your health.

**LONG-TERM**  
Regular physical activity provides important health benefits for chronic disease prevention.

- Sleep**: Improves sleep quality
- Less Anxiety**: Reduces feelings of anxiety
- Blood Pressure**: Reduces blood pressure
- Brain Health**: Reduces risks of developing dementia (including Alzheimer's disease) and reduces risk of depression
- Heart Health**: Lowers risk of heart disease, stroke, and type 2 diabetes
- Cancer Prevention**: Lowers risk of eight cancers: bladder, breast, colon, endometrium, esophagus, kidney, lung, and stomach
- Healthy Weight**: Reduces risk of weight gain
- Bone Strength**: Improves bone health
- Balance and Coordination**: Reduces risks of falls

Source: Physical Activity Guidelines for Americans, 2nd edition  
To learn more, visit: <https://www.cdc.gov/physicalactivity/basics/adults/health-benefits-of-physical-activity-for-adults.html>  
August 2020

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# Cancer and Healthy Weight

**RECOMMENDATION**  
**Be a healthy weight**

Keep your weight within the healthy range<sup>1</sup> 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)<sup>2</sup> throughout adulthood

- Healthy Weight:
  - BMI 18.5-24.9 kg/m<sup>2</sup>
- Waist Circumference
  - Men: 37"
  - Women: 31.5"

WCRF/AICR (4)

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# Protein


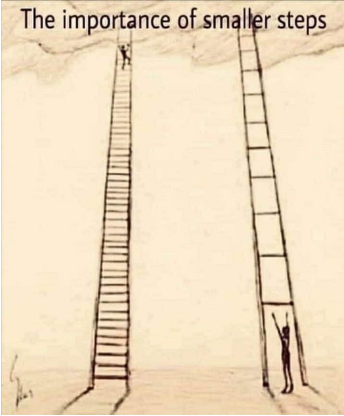
- Increased needs during active treatment- try to eat at every meal and snack
- Helps with feeling full and satisfied when trying to adopt healthy habits.
- Sources: meats, eggs, dairy, beans, nuts, legumes
- Well-tolerated choices: leaner meats, eggs, yogurt, protein drinks/bars/powders



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# Where to Start???

The importance of smaller steps



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- ▶ S = Specific, Simple
- ▶ M = Measurable
- ▶ A = Achievable
- ▶ R = Realistic, Relevant
- ▶ T = Time Bound



- "Goal Stacking"
- Every little step helps!
  - Meet yourself where you are at. What healthy habit are you willing/able to tackle?



Images: smartcaresoftware.com; ilshealth.com

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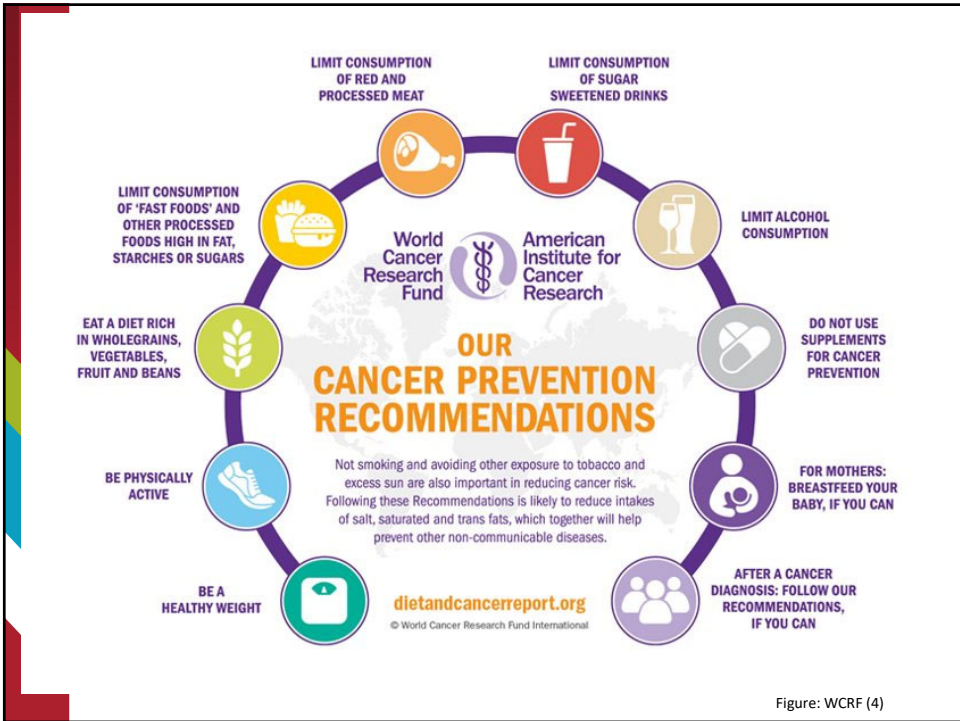


Figure: WCRF (4)

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## 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 survivors<sup>1</sup> 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



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## Take Home Message?

- 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!
- Remember it's a journey that starts with the first step!



Images: pinterest.com

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**Questions?**



ask the  
dietitian



Image: foodallergynorthtexas.org

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## References

1. International Agency for Research on Cancer. Cancer Today. Global Cancer Observatory. <http://gco.iarc.fr/>. Published September 2018. Accessed December 31, 2019.
2. Centers for Disease Control and Prevention. Adult Obesity Prevalence Maps. Overweight & Obesity. <https://www.cdc.gov/obesity/data/prevalence-maps.html>. Published October 29, 2019. Accessed December 31, 2019.
3. Kim DD, Basu A. Estimating the Medical Care Costs of Obesity in the United States: Systematic Review, Meta-Analysis, and Empirical Analysis. *Value Health*. 2016;19(5):602–613. doi:10.1016/j.jval.2016.02.008
4. World Cancer Research Fund/American Institute for Cancer Research. *Diet, Nutrition, Physical Activity and Cancer: a Global Perspective*. Continuous Update Project Expert Report 2018. Available at [dietandcancerreport.org](http://dietandcancerreport.org)
5. Mariotto AB, Yabroff KR, Shao Y, Feuer EJ, Brown ML. Projections of the cost of cancer care in the United States: 2010-2020 [published correction appears in *J Natl Cancer Inst*. 2011 Apr 20;103(8):699]. *J Natl Cancer Inst*. 2011;103(2):117–128. doi:10.1093/jnci/djq495
6. American Cancer Society. Cancer Facts & Figures 2020. Atlanta: American Cancer Society; 2020.
7. Noone AM, Howlander N, Krapcho M, et al. (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute, Bethesda, MD. [www.seer.cancer.gov/csr/1975\\_2015/](http://www.seer.cancer.gov/csr/1975_2015/), based on November 2017 SEER data submission, posted to the SEER website April 2018.
8. American Cancer Society. Cancer Treatment & Survivorship Facts & Figures 2019-2021. Atlanta: American Cancer Society; 2019.
9. Islami F, Goding Sauer A, Miller KD, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States. *CA Cancer J Clin*. 2018;68: 31-54
10. Centers for Disease Control and Prevention, Overweight and Obesity Facts. [www.cdc.gov/nchs/obesity.htm](http://www.cdc.gov/nchs/obesity.htm). Accessed December 2019.



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## References

11. World Cancer Research Fund/American Institute for Cancer Research. Continuous Update Expert Report 2018. Diet, nutrition, physical activity and breast cancer. Available at: [dietandcancerreport.org](http://dietandcancerreport.org).
12. World Cancer Research Fund/American Institute for Cancer Research. Continuous Update Expert Report 2018. Survivors of breast and other cancers. Available at: [dietandcancerreport.org](http://dietandcancerreport.org).
13. Wu S, Liu J, Wang X, et al. Association of obesity and overweight with overall survival in colorectal cancer patients: a meta-analysis of 29 studies. *Cancer Causes Control* 2014; 25: 1489-502
14. Zhang X, Lui Y, Shao H, et al. Obesity paradox in lung cancer prognosis: evolving biological insights and clinical implications. *J Thorac Oncol* 2017; 12: 1478-88.
15. Jackson SE, Heinrich M, Beeken RJ, Wardle J. Weight Loss and Mortality in Overweight and Obese Cancer Survivors: A Systematic Review. *PLoS One*. 2017;12(1):e0169173. Published 2017 Jan 6. doi:10.1371/journal.pone.0169173
16. Playdon MC, Bracken MB, Sanft TB, Ligibel JA, Harrigan M, Irwin ML. Weight Gain After Breast Cancer Diagnosis and All-Cause Mortality: Systematic Review and Meta-Analysis. *J Natl Cancer Inst*. 2015;107(12):djv275. Published 2015 Sep 30. doi:10.1093/jnci/djv275
17. Deng T, Lyon CJ, Bergin S, Caligiuri MA, Hsueh WA. Obesity, Inflammation, and Cancer. *Annu Rev Pathol*. 2016;11:421-449. doi:10.1146/annurev-pathol-012615-044359
18. Moore LL, Chadid S, Singer MR, Kreger BE, Denis GV. Metabolic health reduces risk of obesity-related cancer in Framingham study adults. *Cancer Epidemiology and Prevention Biomarkers*. 2014 Oct 1;23(10):2057-65.



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