

Eating a More Plant-Based Diet

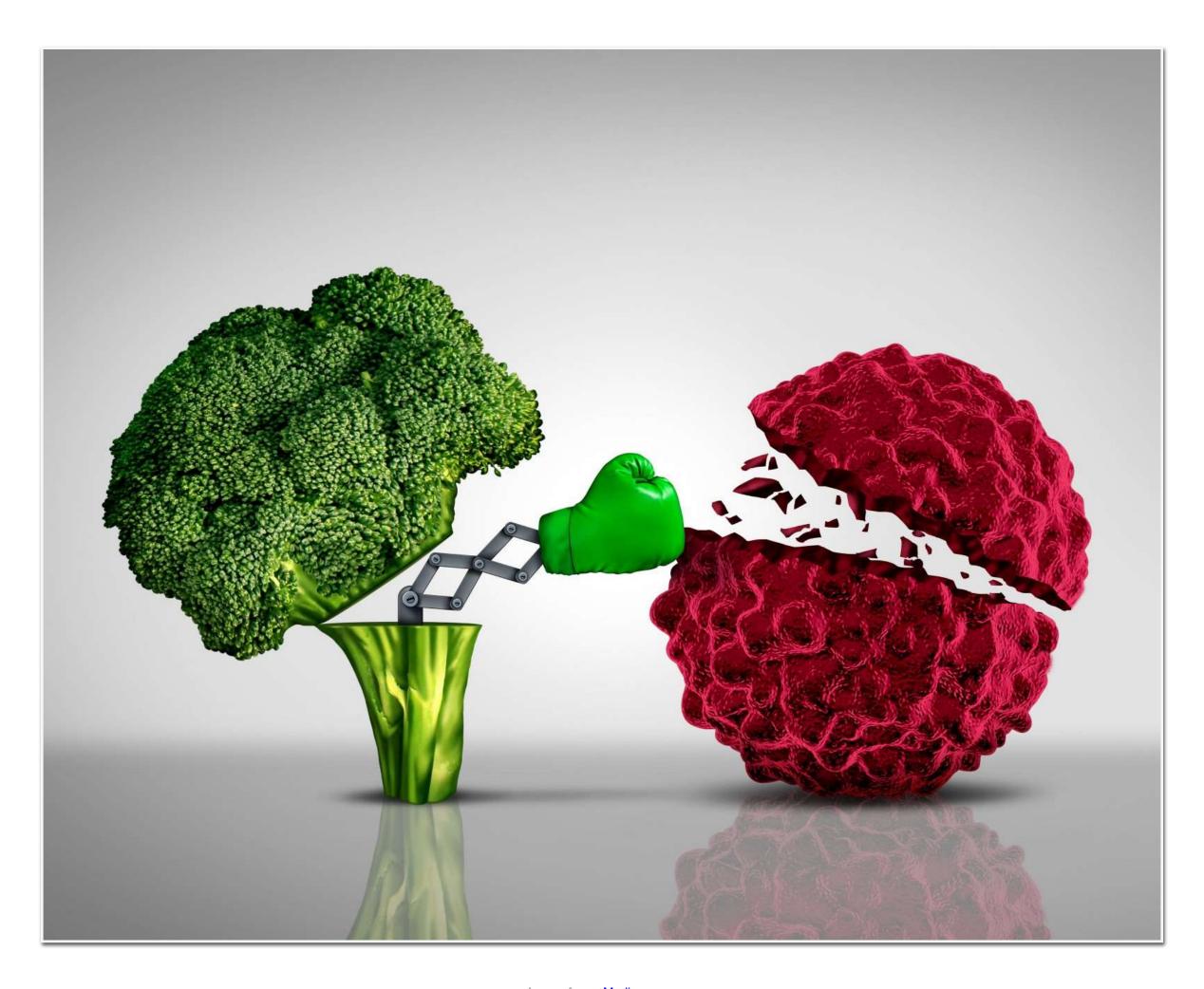
Living Beyond Breast Cancer

Alison Tierney, MS, RD, CD, CSO Wholesome LLC | Founder

NUTRITION



CANCER





WHY I CHOSE CANCER CARE...











Objectives

- To gain an understanding of how cancer develops to provide a deeper understanding of the connection between cancer & nutrition.
- To review the benefits of the plant-based diet to fight against cancer, particularly breast cancer.
- To discuss strategies to implement more plants to one's daily routine.
- To provide tools for shopping, prepping, and cooking to make the plant-based diet more simple & affordable.

understanding how cancer may DEVELOP

How Does Cancer Develop?

Develops when normal processes fail to control cell behavior

Rogue cell becomes a parent cell sharing its abnormal behaviors

Generally results from genetic damage over time (mutations)

CELL FUNCTION

Function	Normal Cell	Cancer Cells
Growth	Knows when to stop	Grows with abandon
Cell's Life	Apoptosis Ignores signals	
		Communicates only betray body's defenses

Mutations

- Changes to DNA sequence
 - While reversible, can still be passed on when cells divide
- Potentially beneficial effects
 - Think natural selection
- Neutral effects
- Harmful effects
 - i.e. those linked to cancer
 - Cancer results after repeated mutations occur



NUTRITION



CANCER

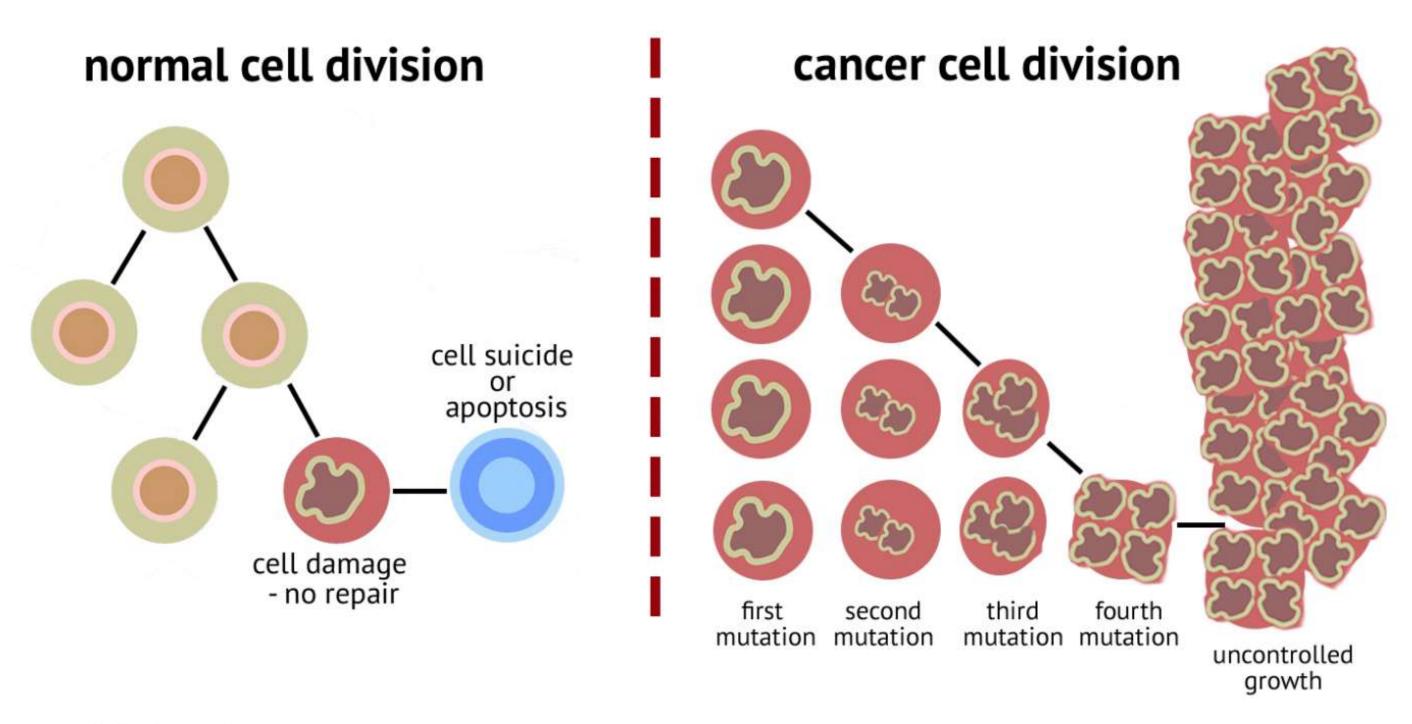


Figure 1.2.6d - Cancer cell division

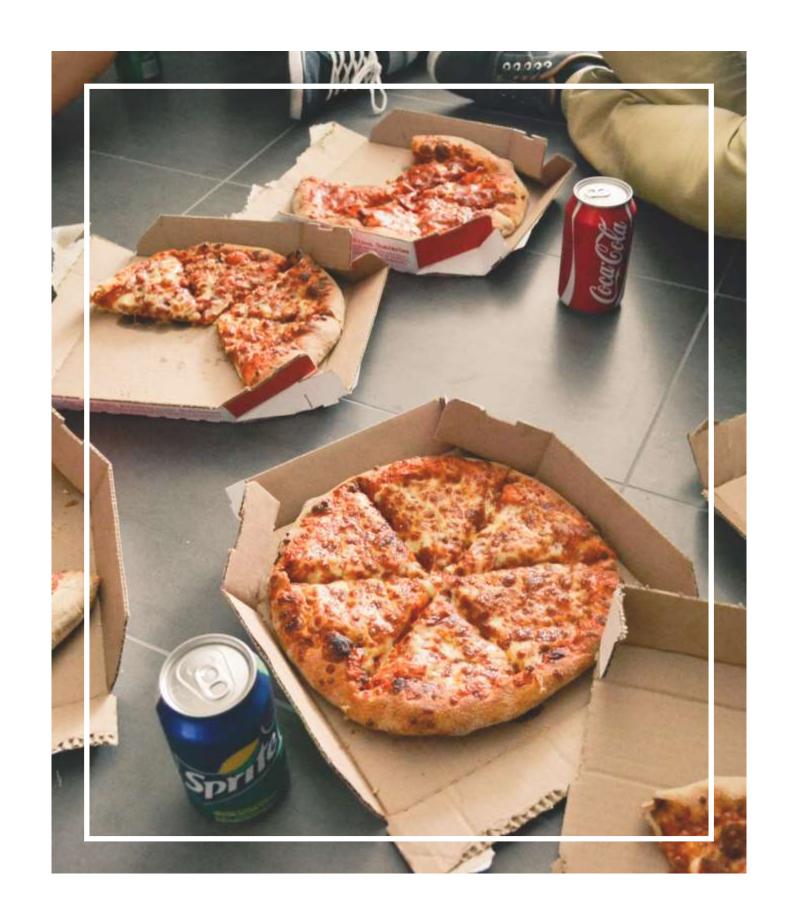
When control processes are functioning properly, damaged cells undergo programmed cell death, called apoptosis. Cancer results from uncontrolled cell division after repeated mutations occur in an oncogene.

Cell Protection¹

- Our cells are designed to prevent damage
- Typically, cells with damage do not survive
 - Apoptosis = self destruction
- But sometimes protective mechanisms fail

Protective Mechanisms Fail 1

- Inherited genetic defects
 - < 10%
 - Present in every cell
- High level of exposure to external carcinogens
 - e.g. Industrial pollution
- Compromise to DNA integrity
 - e.g. chronic inflammation, inappropriate nutrition





Inappropriate Nutrition ¹

Proper nutrition is necessary to human existence.

An imbalance can disturb normal function.

Reduce our resilience to outside factors.

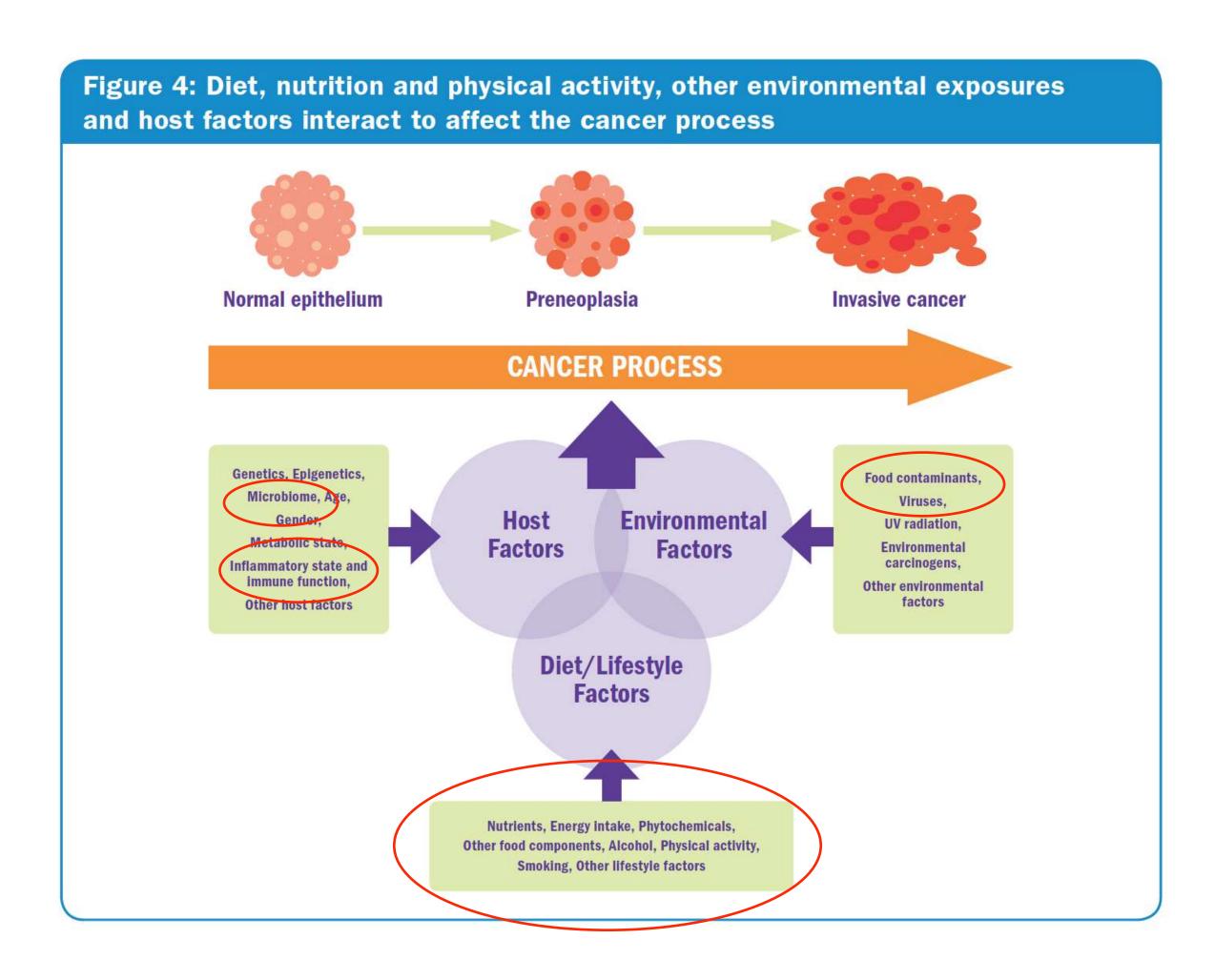




NUTRITION



CANCER





SO, What about this PLANT-BASED DIET?



AICR Recommendations



- AICR one of the world's leading authorities on diet and cancer
- Overarching recommendation:
 - "Diets that revolve around whole plant foods vegetables, whole grains, fruits & beans cut the risk of many cancers, and other diseases as well." ²

Phytonutrients:

Cancer Fighting Nutrients

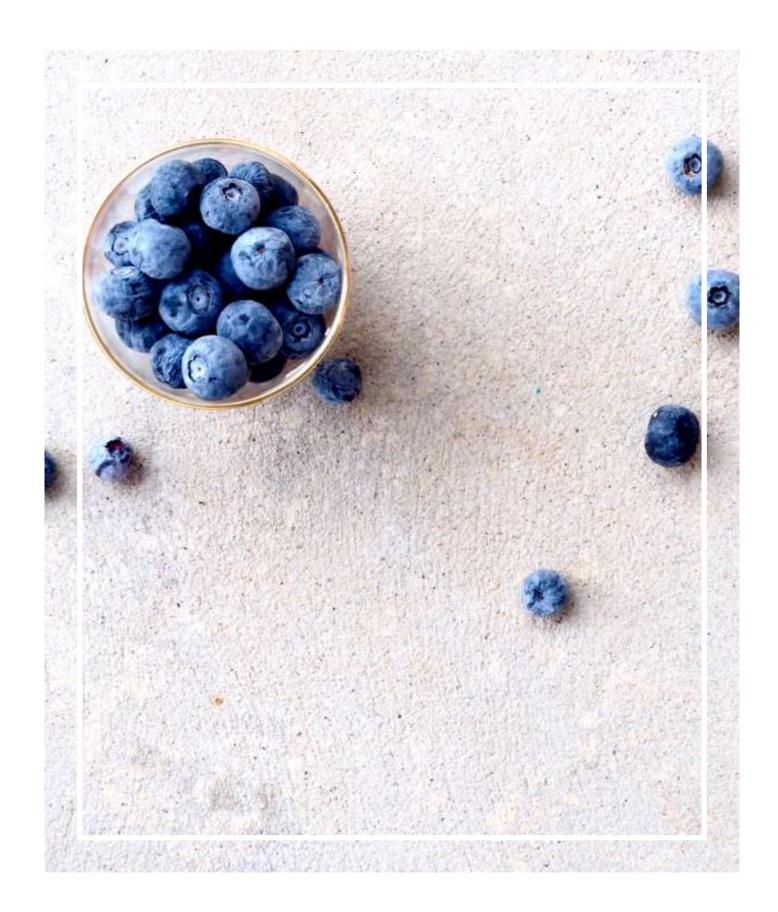


Phytonutrients:

Cancer Fighters in the Foods We Eat

Provide color, odor, and flavor

Eating them can influence chemical processes in positive ways!





Cancer Fighting Potential²

- Stimulate the immune system
- Block substances we eat, drink and breathe from becoming carcinogens
- Reduce inflammation
- Prevent DNA damage and help with DNA repair
- Reduce oxidative damage that can spark cancer
- Slow the growth rate of cancer cells
- Trigger damaged cells to commit suicide before reproducing
- Help to regulate hormones





Mole Foods

Not necessarily supplements, refined foods, etc.

Phytonutrients provides these benefits when we eat them in **whole foods**.



BREAST CANCER **COSCATCh** FOR THE PLANT-BASED DIET

Breast Cancer & The Plant-Based Diet



- Eating a plant-based diet along with walking every day can improve our cancer defenses in just **two weeks**! ³
 - Suppressing cancer growth 20-30% more than two weeks prior

- Women with higher melatonin secretion have been found to have lower rates of breast cancer ⁴
 - Vegetable intake ↑ □ melatonin; meat intake ↓ □ melatonin 5
- Lower breast cancer risk with higher fruit and vegetable intake and higher breast cancer risk associated with higher saturated fat intake (meat, dairy, and processed food intake) ⁶



- Inadequate fiber intake may be a risk factor for breast cancer
- Premenopausal women have 62% lower odds of breast cancer with higher fiber intakes ⁷
 - Fiber benefits are even higher for ER- breast cancer tumors (85% reduction)
 - Not effective from supplements
- Every 20 grams of fiber intake per day is associated with 15% lower risk ⁶



FLAXSEEDS

- 100x more lignans than any other food ⁸
- Recommended to relieve breast pain during mensuration 9
- Related to significant reduction in breast cancer risk in postmenopausal women ¹⁰
- 80% of women had lower levels of Ki-67 with 2 teaspoons of ground flaxseeds per day ¹¹



THERE'S MORE: FLAXSEEDS



Increased life span in breast cancer patients ¹², believed to be responsible due to increased endostatin, which starves cancer tumors of blood supply ¹³



вит, how do l implement?

Mindset

"What can you eat?"

I can eat anything I want, but I what I choose to eat is different."

Choose YOUR Approach

- No rules
- No timeline
- Find a place that is right for you.



Get Support

- Have a conversation
- Don't force others
- See support elsewhere LBBC, our Facebook group!



Menu Plan





Forgive Yourself



You didn't fail. You're human!



places to start

TAKE SMALL STEPS

- Start by adding, not reducing
- Aim for a fruit & vegetable at each meal
- Menu plan for a "Meatless Monday" or several!
- Work towards a "Power Plate"
- Focus on foods you already enjoy
 - Tacos, spaghetti, burrito bowls





Start with Simple Changes

	Sample Day 1	Sample Day 2	Sample Day 3
Breakfast	Whole Grain Toast with Avocado + Sprinkled Cracked Black Pepper + Fruit	Raisin Bran with Unsweetened Almond Milk + Fruit	Oatmeal with unsweetened almond milk, mixed berries
Lunch	Minestrone Soup with Whole Grain Roll + Fruit	Natural Peanut Butter Sandwich Apple, Mixed Raw Vegetables	Veggie Hummus Wrap, Raw Veggies, Fresh Fruit
Snack	Mix Nuts & Dried Fruit	Hummus & Raw Vegetables and/or Pretzels	Larabar
Dinner	Whole Grain Pasta with Marinara Sauce, Side Salad + Fruit	Black Bean Burger on Whole Grain Bun, Baked Sweet Potato + Fruit	Vegetable Stir Fry with Black Beans served over brown rice, + Fruit

Favorite Resources

- Visit our website:
 - www.wholesomellc.com
- Forks Over Knives
- PCRM 21 Day Kickstart
- NutritionFacts.org



Want to Learn More About Wholesome?

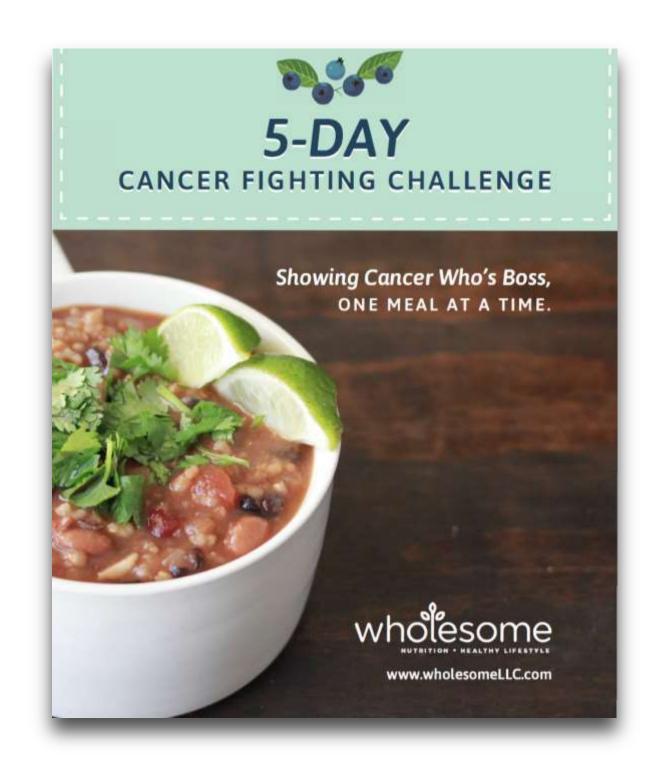
- FREE 5-Day Plant-Based Challenge
- Visit our website:
 - www.wholesomellc.com
- Find on social media:

Instagram: own-lessomellc

Facebook: /wholesomellc

Freedom from Cancer: Your Plant-Based Journey

Coming October 9th, 2019







DON'T LET PERFECTION

BE THE ENEMY OF PROGRESS

WWW.WHOLESOMELLC.COM

References:

- 1. World Cancer Research Fund International. (n.d.). Third Expert Report: Diet, Nutrition, Physical Activity and the Cancer Process. Retrieved June 18, 2018, from https://www.wcrf.org/dietandcancer.
- 2. American Institute for Cancer Research. Recommendations for Cancer Prevention. http://www.aicor.org/reduce-your-cancer-risk/recommendations-for-cancer-prevention/. September 12, 2014. Accessed September 11th, 2019.
- 3. Barnard RJ, Gonzalez JH, Liva EM, Ngo TH. Effects of a low-fat, high-fiber diet and exercise program on breast cancer risk factors in vivo and tumor cell growth and apoptosis in vitro. *Nutri Cancer*. 2006;55(1):28-34.
- 4. Basler M, Jetter A, Fink D, Seifert B, Kullak-Ublick GA, Trojan A. Urinary excretion of melatonin and association with breast cancer: meta-analysis and review of the literature. *Breast Care* (Basel). 2014;9(3):182-7.
- 5. Schernhammer ES, Feskanich D, Nic C, Dopfel R, Holmes MD, Hankinson SE. Dietary correlates of urinary 6-sulfatoxymelatonin concentrations in the Nurses' Health Study cohorts. *Am J Clin Nutri.* 2009;90(4):975-85.
- 6. Howe GR, Hirohata T, Hislop TG, et al. Dietary factors and risk of breast cancer: combined analysis of 12 case-control studies. J Natl Cancer Inst. 1990;82(7):561-9.
- 7. Li Q, Holford TR, Zhang Y, et al. Dietary fiber intake and risk of breast cancer by menopausal and estrogen receptor status. Eur J Nutr. 2013;52(1):217-23.
- 8. Smeds AI, Eklund PC, Sjoholm RE, et al. Quantification of a broad spectrum of lignans in cereals, oilseeds, and nuts. J Agric Food Chem. 2007;55(4):1337-46.
- 9. Rosolowich V, Saettler E, Szuck B, et al. Mastalgia. J Obstet Gynaecol Can. 2006;170:49-57.
- 10. Buck K, Zaineddin AK, Vrieling A, Linseisen J, Chang-Claude J. Meta-analyses of lignans and enterolignans in relation to breast cancer risk. Am J Clin Nutr. 2010;92(1):141-53.
- 11. Fabian CJ, Kimler BF, Zalles CM, et al. Reduction in Ki-67 in benign breast tissue of high-risk women with the lignan secioslariciresinol diglycoside. Cancer Prev Res (Phila). 2010;3(10):1342-50.
- 12. McCann SE, Thompson LU, Nie J, et al. Dietary lignan intakes in relation to survival among women with breast cancer: the Western New York Exposures and Breast Cancer (WEB) Study. Breast Cancer Res Treat. 2010;122(1):229-35.
- 13. Aberg UW, Saarinen N, Abrahamsson A, Nurmi T, Engblom S, Dabrosin C. Tamoxifen and flaxseed alter angiogenesis regulators in normal human breast tissue in vivo. PLoS ONE. 2011;6(9):e25720.

