

# Breast Cancer Nutrition

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# Importance of Nutrition

- ▶ Dietary/Lifestyle Factors Affecting Breast Cancer Risk
  - ▶ Meal/Food Types
    - ▶ High Fat/Sodium
    - ▶ Processed Foods
    - ▶ Excess sugar/CHO intake
    - ▶ Poor Movement/Lack of Exercise
- ▶ “Poor dietary habits characterized by the high intake of refined starches, sugar, and both saturated and trans-saturated fats, as well as the low intake of omega-3 fatty acids, natural antioxidants, and fiber, modulate inflammation and, thereby, appear to be linked to increased risk of breast cancer and mortality.”

Source: [Obesity, Dietary Factors, Nutrition, and Breast Cancer Risk - PMC \(nih.gov\)](#)

# Main Tenants of Breast Cancer Nutrition

- ▶ Meal Consistency
- ▶ Meal Variety
- ▶ Lifestyle Changes

# Meal Consistency/Schedule

- ▶ Allows for daily nutritional intake
  - ▶ 100% RDIs of nutrients
  - ▶ Adequate calorie/protein intake
- ▶ Promotes stable eating habits
  - ▶ Avoids meal skipping/lackluster meal
  - ▶ Prevents over/undereating of foods
- ▶ Weight Management
  - ▶ Allows for both weight recovery or loss

# Meal Variety

- ▶ “Bright and colorful”
  - ▶ Varying colors of foods on plate
- ▶ Different Options of Foods
  - ▶ Carbohydrates, Protein, Fats
    - ▶ Fruits
    - ▶ Vegetables
    - ▶ Meats
    - ▶ Starches



# Breast Cancer Nutrition Guidelines

- ▶ “BCPs should be encouraged to consume 5-9 servings/d of fruits (~150 g/serving) and vegetables (~75 g/serving) (69). Servings should be mostly rich in  $\beta$ -carotene, vitamins A, E, and C, and flavonoids because these compounds have been shown to improve breast cancer outcomes and the overall health of BCPs.”
- ▶ “Additionally, Wayne et al. (101) showed a small increase in the fruit and vegetable intake in BCPs, which can be associated with better cancer outcomes and improved results in the decrease of the inflammatory response, tumor progression, and hormonal biomarkers of recurrence risk (74).”
- ▶ “Additionally, it is suggested that sources of animal protein, such as meat, eggs, and low-fat dairy, should be consumed moderately (1-2 times/wk each) (76), and fish, poultry, turkey, and pork tenderloin should be made priorities because of their low fat content (77).”
- ▶ “Several studies report that BCPs have an inadequate diet given that their intakes of fruit, legumes, and dark-green and orange vegetables are decreased, which consequently means they have insufficient dietary intakes of calcium, iron, phosphorus, magnesium, niacin, riboflavin, thiamin, vitamin B-6, vitamin C, and zinc (14, 25).”

# Antioxidants and Phytochemicals

## ▶ Phytochemical

- ▶ Compounds found in plant-based foods that aid in helping out the following
  - ▶ Chronic diseases, including cancer
  - ▶ Chronic Inflammation
  - ▶ Hormone Regulation
  - ▶ Immune System Function

## ▶ Antioxidants

- ▶ Nutrients that aid in inflammation reduction and bodily repair from damage
  - ▶ Vit C, Vit E, Vit A
  - ▶ Zinc, Selenium, Manganese
  - ▶ Phenols, Polyphenols, etc.



# Weight Management/Lifestyle Factors

- ▶ No smoking/vaping/inhalants use
  - ▶ If currently using, then working towards reduction and full quitting
- ▶ Seldom alcohol use
  - ▶ “Compared to women who don’t drink at all, women who have three alcoholic drinks per week have a 15% higher risk of breast cancer. Experts estimate that the risk of breast cancer goes up another 10% for each additional drink women regularly have each day.”
- ▶ Movement/Exercise
  - ▶ Encouraging roughly 30-60min exercise/movement per day
  - ▶ Overweight/Obesity raises numerous health-adverse risks that can contribute to cancer risk
    - ▶ “Overall, women who get regular exercise have a 10-20 percent lower risk of breast cancer risk than women who aren’t active”



# Breast Cancer Nutrition Myths

- ▶ “Sugar feeds cancer cells”
  - ▶ Increase in sugar intake WILL NOT cause cancer to grow faster or fuel cancer spreading
    - ▶ Increased sugar use = increased comorbidity health risk = increased cancer risk
- ▶ Soy and Breast Cancer
  - ▶ Moderate intake of soy products (20-25 grams per day) DOESN'T INCREASE breast cancer risk, even in estrogen-positive cancers
  - ▶ Moderate soy intake can reduce heart disease risk and general cancer risk