Lifestyle and Nutrition After Breast Cancer

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Overview

• Discuss Research on Nutrition After Breast Cancer Diagnosis

• The Big Picture on Body Weight and Nutrition

• Myths, Fears, and Staying Sane in a Scary Food World

• Practical Tips for Long Term Wellness
Nutrition Goals

• Phase 1: Treatment
  • Nutritional deficiencies
  • Side effects and treatment tolerance
  • Quality of life
  • Maintain optimal body weight
  • Educating others about your needs
  • Risks/benefits of nutrition-related “therapies”

• Phase 2: Healing and Long-Term Wellness
  • Maintain optimal/healthy body weight
  • Healthy nutrition habits long-term
Type of Weight Loss: *Intentional* v. *Unintentional*

Muscle mass functions include:
- Skin integrity
- Immune function
- Healing/Repair
- GI integrity/Digestion

Flip Side of the Coin: Weight Gain

- Weight gain in cancer survivors is common
- Obesity at diagnosis = adverse prognostic factor
- Weight gain after diagnosis = adverse prognostic factor
- High insulin & IGF levels = adverse prognostic factors
- Weight gain = Poorer quality of life & long-term health
Reality for Cancer Survivors and General Public Alike

Our (typically unrealistic) Expectations
Energy Imbalance: The Myth We Perpetuate

• An energy deficit of approximately 500 kcal per day leads to steady rate of weight loss of 1 pound per week indefinitely, however…

• This static weight-loss rule of thumb does not account for physiological adaptation to decreased bodyweight

• Widespread use of this estimate leads to drastically overestimated expectations for weight loss

Nutrition vs. Physical Activity

• Large behavior changes are required to produce and maintain reductions in body weight

• Small behavior changes may be sufficient to prevent excessive weight gain

• “Dieting” is significantly more effective for weight loss and diet is the key driver of excess weight gain over time

• Physical activity to match intake is likely the most effective way to achieve weight maintenance

For Breast Cancer Survivors, Be Kind to Yourself

• Normalize your experience but don’t create expectation of weight gain

• Your needs are unique: fear, anxiety, coping

• Nutrition and food go far beyond meeting basic needs for most people – who eats for fuel?

• Eat to Nourish, Move to Heal
Greater Br Ca Survival in Physically Active Women with High FV Intake, Regardless of Obesity

More Movement = Better Survival

Physical activity, biomarkers, and disease outcomes in cancer survivors: a systematic review

“...consistent evidence from 27 observational studies that physical activity is associated with reduced all-cause, breast cancer-specific, and colon cancer-specific mortality.”

“Randomized controlled trials of exercise that included biomarker endpoints suggest that exercise may result in beneficial changes in the circulating level of insulin, insulin-related pathways, inflammation, and, possibly, immunity...”

New Paradigm

Instead of…

Strive to achieve…
Putting It Into Practice

• **Make your own health a priority**

• Make an appointment with a dietitian (RD)!

• Join behavior change support program

• Move, move, move

• Use available resources
  • friends, family, even co-workers for motivation
  • online resources and support groups
  • your cancer center / treatment facility
Phase 2: Healing and Long-Term Wellness

- Diet and primary cancer risk reduction?
- Diet and recurrence risk reduction?
- Diet and total health?
- What can you do to help yourself?
Eight ways to stay healthy after cancer: and evidence-based message

1. Don't smoke
2. Avoid secondhand smoke
3. Exercise regularly
4. Avoid weight gain
5. Eat a healthy diet
6. Drink alcohol in moderation, if at all
7. Stay connected with friends, family, and other survivors
8. Get screening tests and go to your regular checkups

Why Food?

• What are phytonutrients (phyto + nutrient)?

• Phytonutrients vs. vitamins and minerals

• Phytonutrients: Not necessary to live, but definitely necessary to live well

• Why food? The mind-boggling complexity of food provides the most benefit to the body

• Avoid getting lost in the minutia
More to Gain From Real Food

Plant foods protect in so many ways

- Better handle “insults” of daily living (detoxification)
- Alter hormone production favorably
- Stop free radicals (oxidants) from damaging cells
- Turn on helpful genes/Turn off unhelpful genes
- Encourage damaged cells’ death
- Support immune system (safely)
- Decrease body’s response to pro-growth hormones
- Enhance cell-to-cell communication
- MANY other disease fighting properties
Survivorship: More on Diet

• Low Fat Diet for Breast Cancer Survivors (WINS)
  • 2,437 women with early stage breast cancer
  • Assigned low-fat or regular diet
  • Followed 5 years
  
  • Low fat diet group significantly lower risk of recurrence
    • 24% non-significant lower risk of recurrence in group overall
    • 42% lower risk of recurrence in ER- breast cancer group

Survivorship: More on Diet

Just this week in New Orleans...

• Presented at plenary session, “Transformative Clinical Trials in Breast Cancer” at Association for Cancer Research (AACR)
• WHI – RCT of 48,955 women 50-79 years old, no history of breast cancer; after 10.9 years average follow up:

  • 35% reduced risk of death post-breast cancer diagnosis in the low low fat group compared with usual diet group
  • Survival 82% in low fat v. 78% in usual diet group; due to differences in breast cancer specific survival
  • Lower cardiovascular disease mortality in low fat group

What’s a Telomere?

Biopsy Proven Prostate Cancer

- low-fat, vegetarian/vegan, regular physical activity, stress management (yoga, meditation), social support

Men in intervention group had *increased telomere length*. Men in control group had *decreased telomere length*.

Nutrition Myths, Fear, and the Big Picture

“I would have, could have, should have…”
Myth: Soy Feeds ER+ Breast Tumors
Soy: Beyond Hormones

Soy nutrients have dozens of anti-cancer properties completely unrelated to so-called “estrogenic” effects

- Anti-angiogenesis through actions on VEGF & EGF pathways
- Induce G2/M cell cycle phase arrest (expression of P21)
- Inhibit tyrosine kinases (dampen uncontrolled growth)
- \( \uparrow \) cell differentiation in younger women/teens (\( \downarrow \) cells at risk)
- Antioxidant activity
- Inhibit enzymes in our own estrogen-producing pathways
- Upregulate immune function/natural killer cell function
- Turn up production of sex hormone binding globulin
- Inhibit metastasis through multiple pathways

Soy: Safe/Possibly Beneficial to Survivors

Represent different groups (2 US, 1 China) varying levels soy intake
- All 3 studies - no adverse effect of soy food consumption
- All 3 studies - soy may be protective against recurrence

96 women, randomized, cross-over soy study; 50 mg isoflavones per day
- Did not affect nipple aspirate volume or estrogen levels

Meta-analysis (14 studies on incidence; 4 on recurrence)
- 24% reduced breast cancer risk w/ most soy (Asian v. Western)
- 16% reduced recurrence risk in all populations combined for breast cancer survivors consuming the most soy
Soy – More Reassurance


“Overall, these studies indicate that soy foods consumed at levels comparable to those in Asian populations have no detrimental effects on risk of breast cancer recurrence and in some cases significantly reduce the risk.”
Soy – More Reassurance


*Soy is food…should be treated like food! Enjoy soy if you like, avoid it if you don’t*

*It’s Your Choice!*
Where to Go for Good Information?
Health After Cancer

American Institute for Cancer Research (AICR)
http://www.aicr.org
The Big Picture: What Should I Eat?

Plants, plants, and more plants

2/3 to 3/4 of plate covered by vegetables, legumes, fruit - in that order of volume/amount - heavy emphasis on cruciferous veg and dark purple/red fruit

Remaining 1/4 to 1/3 of plate should be split between small amount of lean protein and whole grains

Michael Pollan said it best: “Eat Food. Not too much. Mostly Plants.”
Recipe for Success

• Behavior-Based Goal Setting
• Power of Positive Thinking
• Embrace Self-Love
• Do what works for you

Let Food Be Your Medicine
And Medicine Be Your Food
-Hippocrates, 337 BC
Nutrition Truths

• Nutrition is the foundation of good health.
• America - toxic food environment. Commit to healthy eating in order to eat healthfully.
• Maintaining a healthy lifestyle is challenging, but possible!
• Find balance: quick fix v. commitment to health
• Reading food labels will not make you healthier.

For chronic disease…treatment without nutrition is no treatment at all.
Question & Answer