

Cancer Survivors –

Hungry & in need of dietary change

Setting the table to promote changes that count

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Cancer Survivors are interested in undertaking dietary change

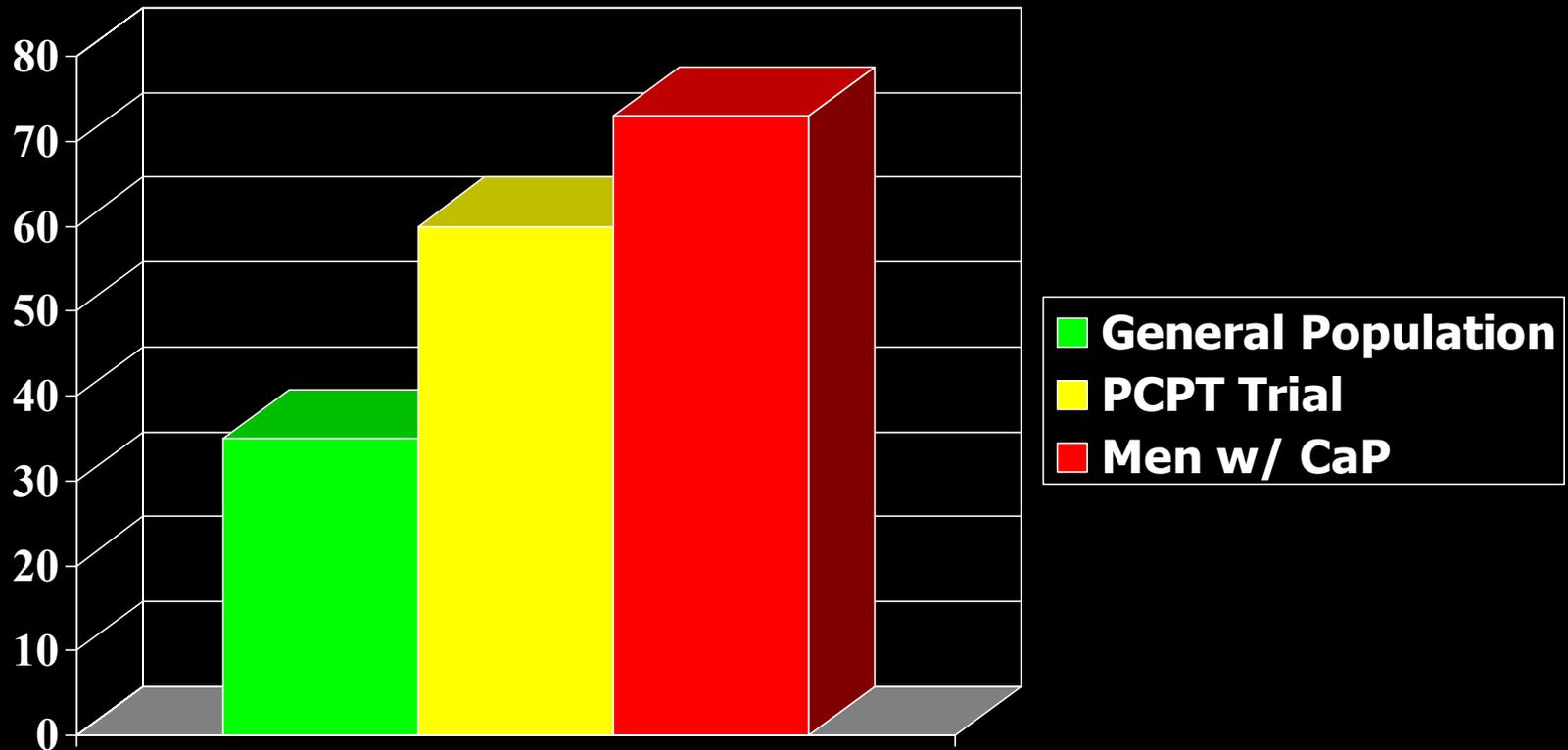
- First reported in review 1989. Rose Oncol Nurs Forum 16:335, 1989.
- 85% report interest in undertaking dietary change. Demark-Wahnefried et al. Cancer 88: 674, 2000.

What Changes do They Make?

Supplement-Use

- No differences in supplement-use between 689 cancer survivors & 32,037 healthy controls National Health Interview Survey 1987-1992
McDavid et al. Nutr Cancer, 41:29, 2001
- Increased supplement-use among survivors
 - 81% Breast Cancer Survivors (N=435) Newman et al. J Am Diet Assoc 98:285, 1998.
 - 70% Breast & Prostate Cancer Survivors (N=988) Demark-Wahnefried et al. Cancer 88: 674, 2000
 - 84% Hairy Cell Leukemia (N=34) Hounsell et al. Oncologist 6:435, 2001
 - 41% Breast Cancer Survivors (N=250) started a new supplement Maunsell et al. JCO 20:1017, 2002
 - 48% of Survivors (126 Breast, 114 prostate, 116 colorectal) started a new supplement Patterson et al. J Am Diet Assoc, 103:323, 2003

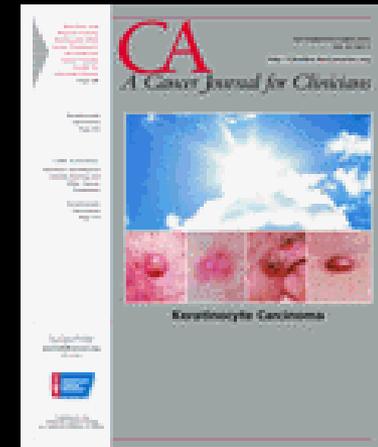
Supplement-Use Among US Males



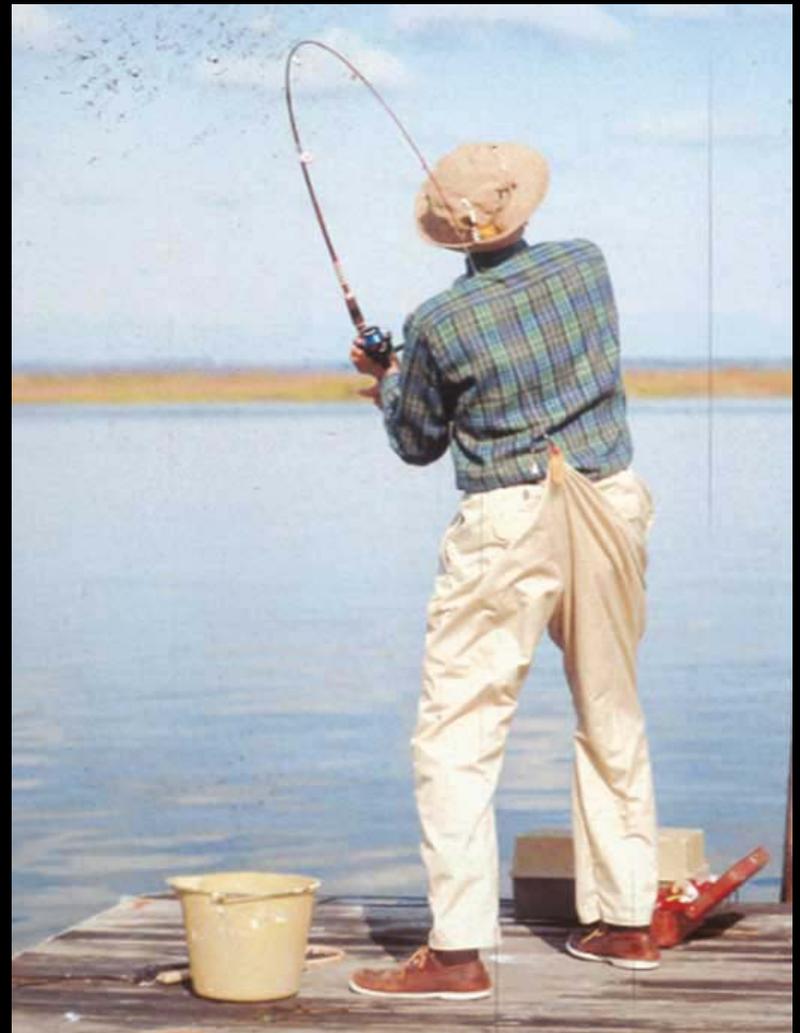
NCHS 1999 Series 11, No. 244, 1999
Neuhouser et al. Nutr Cancer, 39:12, 2001

What Needs to Be Done?

- Research to determine the benefits and risks of supplements on cancer (interactions with treatment & genotype) & health in general
- Public education
 - <http://dietary-supplements.info.nih.gov>
 - **Nutrition and Physical Activity During & After Cancer Treatment: An American Cancer Society Guide for Informed Choices**
CA Cancer J Clin 2003 53: 268-291
(www.cancer.org)



More grassroots efforts to get the word out that reliance on unproven supplements is a lot like fishing



How do They Change What They Eat?

Demark-Wahnefried et al. <i>Cancer</i> 88: 674, 2000	988 Breast & Prostate CA	55% report <5 daily servings of V&F/day 69% report a low fat diet
Hounsell et al. <i>Oncologist</i> 6:435, 2001	34 Hairy cell leukemia	52% adopted “healthier” diet
Maskarinec et al. <i>Eur J Cancer Care</i> 10:12, 2001	143 Varied CA	48% changed their diets – increases in V&F & decreases in meat most common
Tangney et al. <i>Breast Cancer Res Treat</i> 71:113, 2002	117 Breast CA	Compared to norms pts consume lower calorie diets with less variety (lower HEI)
Maunsell et al. <i>JCO</i> 20:1017, 2002	250 Breast CA	41% changed their diets – increase in V&F & decreases in meat most common
Thomson et al. <i>J Am Diet Assoc</i> 102(6):801-8, 2002	3,084 Breast CA	Higher V&F and fiber-rich food intakes (58%, 60%, 38%, respectively) and lower intakes of high-fat foods
Blanchard et al. <i>Am J Health Behav</i> 27:246, 2003	352 Varied CA	47% report improving their diet
Patterson et al. <i>J Am Diet Assoc</i> , 103:323, 2003	126 Breast, 114 prostate, 116 colorectal CA	66.3% report dietary change 40% dietary change (V&F, less fat, less meat)

American Cancer Society Expert Committee Grading of Benefit vs. Harm

Convincing Benefit	?
Probable Benefit	Striving for a Healthy Weight
Possible Benefit	Increasing Physical Activity Limiting Saturated Fat Increasing Vegetables & Fruits
Insufficient Evidence of Benefit or Risk	Limiting Total Fat Increasing Fiber Increasing Omega-3 Fats Consuming Soy Foods

**Probable
Benefit:
Striving
for a
Healthy
Weight**



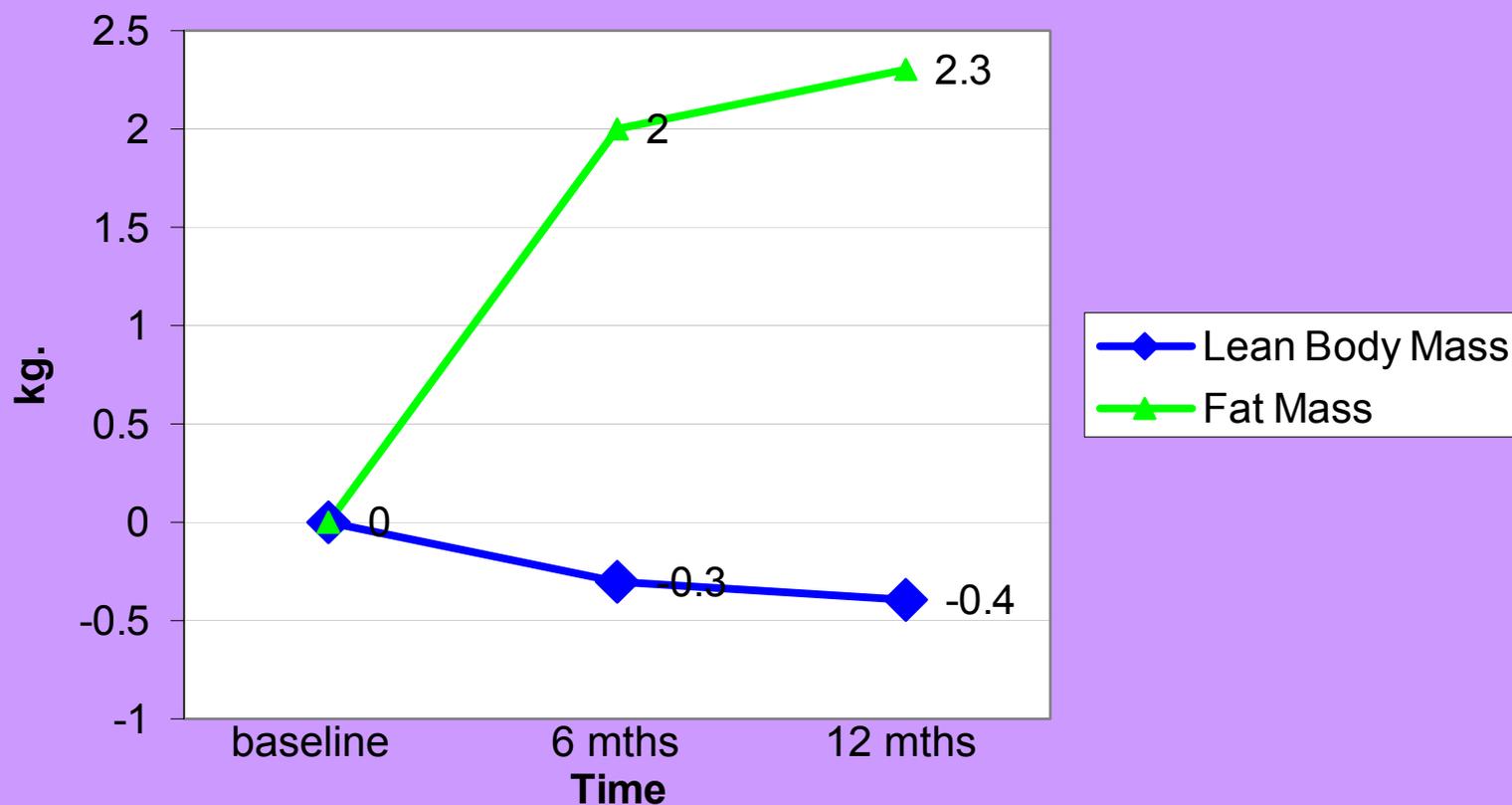
What is Known About Body Weight Status & Cancer

- Consensus that energy restriction reduces tumor burden & improves survival in animal models
- Overweight/Obesity consistently associated with increased risk of endometrium, breast (post-menopausal), colon, kidney & gall bladder cancers.
- Overweight/Obesity at time of diagnosis associated with poorer survival for breast, colon and prostate cancers

Body Weight & Cancer Mortality

- Calle et al. NEJM 348:1625, 2003.
- Cohort >900,000
- Risk of Death
 - Men: 1.52 (1.13-2.05)
 - Women: 1.62 (1.40-1.87)

Changes in Body Composition the Year Following Diagnosis Among Breast Cancer Patients Receiving Adjuvant Chemotherapy

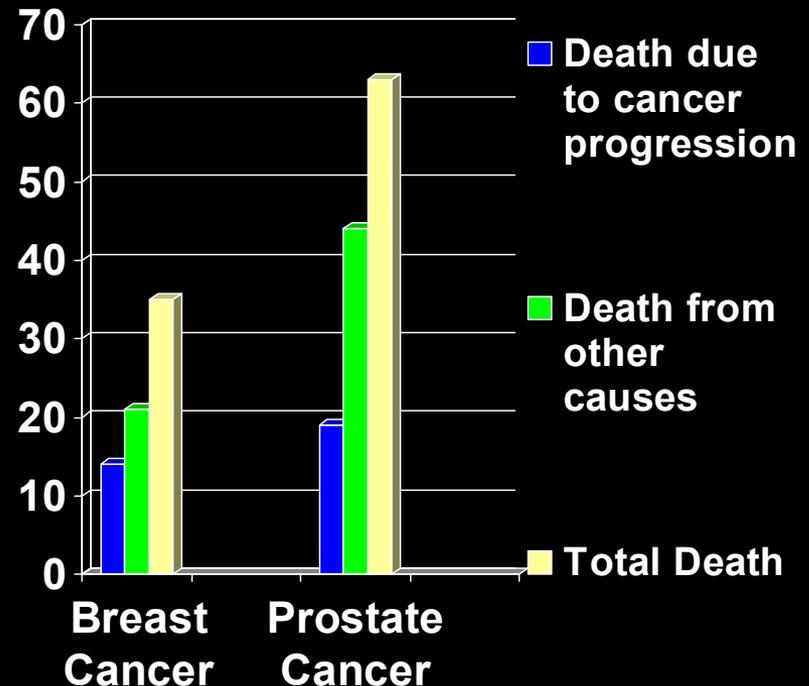


Increased Mortality from Non-Cancer Causes Among Survivors

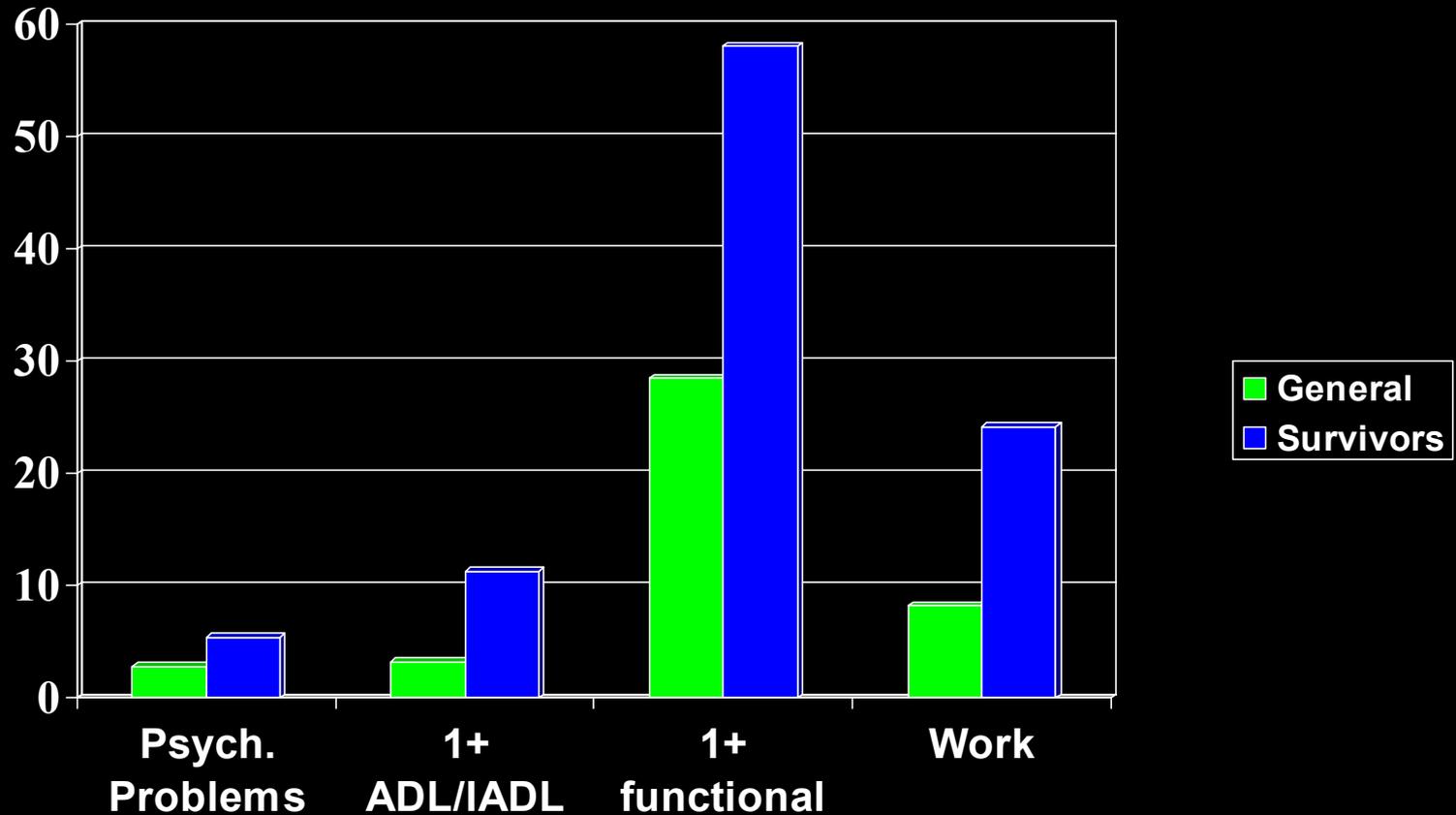
- Study of 1.2 M SEER cases

Brown et al JNCI 1993

- Overall HR for non-cancer related death = 1.37
- CVD major cause of death, DM and 2nd primaries also are factors
- “The evidence that cancer patients die of non-cancer causes at a higher rate than persons in the general population is overwhelming”

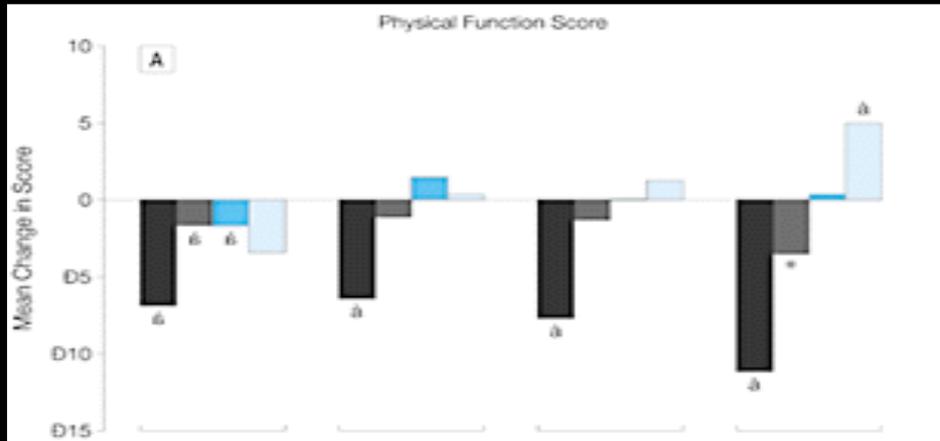


% with Limitations: Survivors vs. General Population

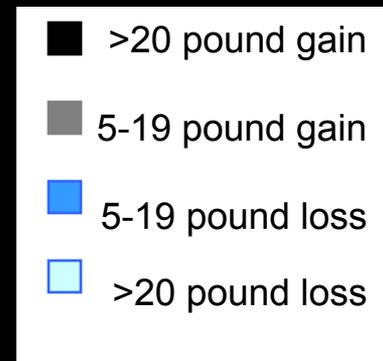
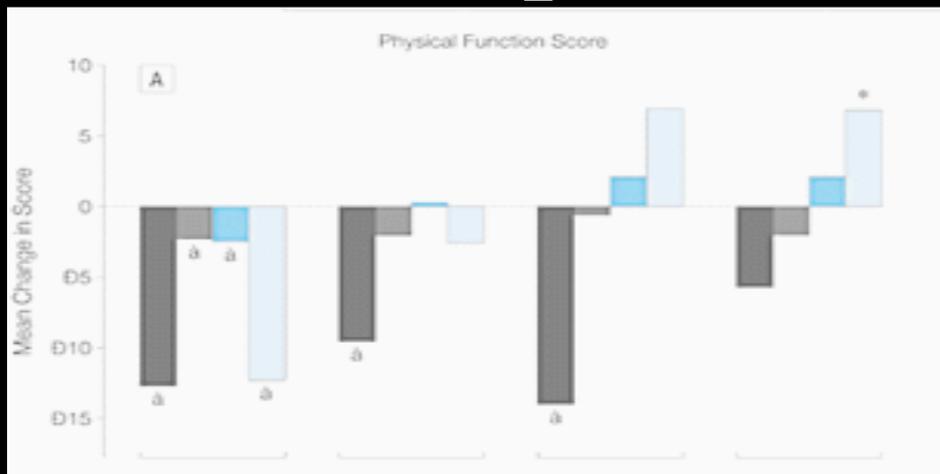


Effect of Weight Change on Physical Function

Women <65



Women ≥65



Mean Change in Score

BMI <25

25-29.9

30-34.9

BMI >35

Fine et al. JAMA. 282:2136, 1999

Current Studies Testing the Impact of Diet Modification on Disease-Free or Overall Survival – Results after 2006

- Women's Intervention Nutrition Study (WINS)
 - 2,500 post-menopausal within 12 mths of surgery
 - dietary fat restriction (<15% energy from fat)
- Women's Healthy Eating Lifestyle (WHEL)
 - 3,088 pre- & post-menopausal after completion of initial therapy and within 4 yrs of dx
 - 5 veg & 3 fruit svg, 16 oz veg juice, 15-20% fat & 30 g fiber



- RCT (CA81191) to improve diet (fruit & vegetable, low fat-saturated fat) & exercise behaviors of breast & prostate cancer survivors dx'd w/ early stage disease within 9 months

- N=530

- Distance Medicine Approach – mailed materials over 10 months

- Randomized to Tailored vs. Untailored Arms



Project LEAD:

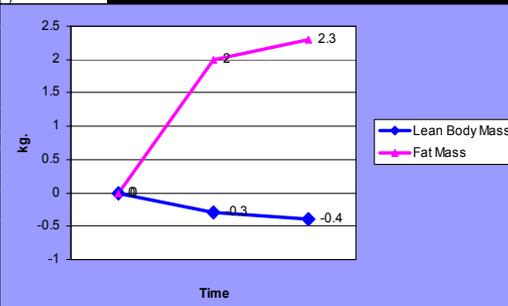
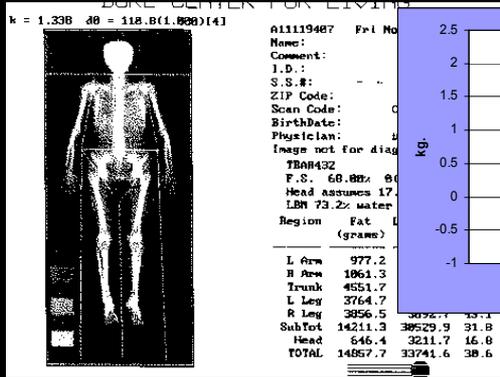


Leading the Way in Education Against Disease

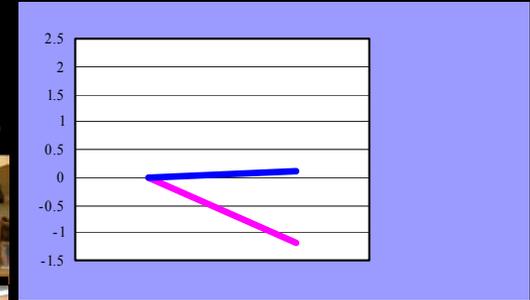
- RCT (AG11268) aimed at improving physical functioning among breast & prostate cancer survivors age 65+
- Distance Medicine Approach – mailed materials + telephone counseling over 6 months
- Randomized to General Health Counseling (Control) or Diet-Exercise Arms



Behavioral Interventions to Improve Body Composition



Pilot Study (N=10)



RCT testing a mailed materials/telephone counseling intervention via CCOP's CA92468



Conclusions:

A substantial proportion of cancer survivors report undertaking dietary change, but the majority pursue changes that are not evidence-based

- More research is necessary to determine diets or nutrients that influence neoplasia.
- More research is necessary to determine interactions between diet (nutrients), treatment and genetic factors for specific cancers.
- Until more is known, more efforts are needed to convey the message to health care providers & survivors that some forms of dietary change may not be beneficial & may be harmful.

Conclusions:

Given extant data on sequelae, comorbidity and the link with other metabolic (syndrome X) disorders – the promotion of some dietary changes appear appropriate

- Achieving a healthful body weight
- Reliance on foods with high nutrient densities (i.e., vegetables, whole grains).
- Limiting foods that are associated with higher risk of other cancers, CVD or DM (i.e., red meat, saturated fat)

Collaborators

STRENGTH (CA92468)

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All participants on the trials



Thank you!