Healthy Living for Cancer Survivors: Bone Strength, Nutrition, and Exercise
FREE NATIONAL WEBINAR
Monday, September 26th
8:00 p.m. EST

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WELCOME

Shera Dubitsky, MEd, MA
Director of Navigation and Support Services
Sharsheret

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Sharsheret is a national not-for-profit organization supporting young Jewish women and their families facing breast cancer. Our mission is to offer a community of support to women, of all Jewish backgrounds, diagnosed with breast cancer or at increased genetic risk, by fostering culturally-relevant individualized connections with networks of peers, health professionals, and related resources.

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BACKGROUND

• 1 in 40 Ashkenazi Jews carries a BRCA gene mutation

• 80% risk of breast cancer

• 40% risk ovarian cancer

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COMMONALITIES

Genetics  Holidays
Culture  Dating
Spirituality  Marriage
Values  Community

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HEALTHY LIVING

Kathryn H. Schmitz, PhD, MPH, FACSM
Professor of Public Health Sciences
Penn State College of Medicine

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Healthy Living for Breast and Ovarian Cancer Survivors

Kathryn Schmitz, PhD, MPH, FACSM
Vice President, American College of Sports Medicine
Professor, Penn State College of Medicine
Associate Director of Population Sciences
Penn State Cancer Institute

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Overview

- Why exercise?
- Pre-exercise evaluation
- Exercise Prescription
- Nutrition for the Cancer Survivor

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Average OOP health care costs per Breast Ca Survivor

- $9988 USD
- Upper-body symptoms, fatigue, or poor upper-body function $\uparrow$ OOP costs
- 4+ common adverse treatment effects
  - $\uparrow$ OOP costs X 2
- Interventions costing <$4000 USD per patient per year worth exploring

Schmitz et al. Supportive Care in Cancer, 2015

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What Will Improve Physical Function After Cancer?

• Exercise!

• For Example
  – Morey et al. JAMA 2009 (RENEW Trial)
  – Brown et al. JCO 2015 (PAL Trial)

• Increased strength is associated with improved functional capacity in older adults

• Aerobic exercise is definitely associated with improved physical abilities (aerobic fitness)
# Fatigue

<table>
<thead>
<tr>
<th></th>
<th>Pre tx</th>
<th>During tx</th>
<th>Post treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fatigued</strong></td>
<td>30%</td>
<td>93%</td>
<td>50% 12m</td>
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<td></td>
<td></td>
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<td>3-6m 25%</td>
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Data from Hayes et al.

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Fatigue – what happens over time

- Increases in fatigue during chemotherapy and radiation treatment
- Inconsistent evidence relating to what happens beyond treatment

20% up to 5 years post-tx

It can be a persistent problem

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What Helps Improve Fatigue

• Exercise!

• Brown et al. 2011 meta-analysis
  – Exercise reduced CRF especially in programs that involved moderate-intensity, resistance exercise among older cancer survivors and that were guided by theory

• National Comprehensive Cancer Network
  – Aerobic exercise is the #1 recommended non-pharmacologic treatment for cancer related fatigue
What helps with Aches & Pains in Cancer Survivors?

- Medications, switching or discontinuing Aromatase Inhibitors, Acupuncture
- Exercise!
  - Project HOPE, Irwin et al. JCO 2015
Bone Health

• Treatment-related causes of bone health problems in cancer survivors:
  – Chemotherapy-induced premature ovarian failure
  – Medical or surgical ovarian ablation therapy
  – Hormonal treatments

• Other causes:
  – Inactivity
  – Use of corticosteroids
  – Inadequate intake of calcium and Vitamin D
What helps with promoting Bone Health?

- Quitting smoking
- Adequate Calcium/Vit D
- Bisphosphonates
- Stress Reduction
- Bone Density Testing
- Exercise!
  - Particularly weight training!
  - Nelson et al. JAMA 1994
  - Excellent evidence in prostate cancer survivors as well (Segal et al. JCO 2003)
  - Winters-Stone et al. 2014

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Heart Health & Breast/Prostate Cancer

• Personal and behavioral risk factors for Heart Disease:
  – Age
  – Body mass index
  – Diet
  – Physical activity levels
  – Smoking
  – Cholesterol
  – Blood lipids

• Treatment-related factors too...

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American Heart Association Guidelines for Heart Health

• Quit smoking
• Good nutrition, weight control
• Omega-3 fatty acids
• Treatment for hypertension and dyslipidemia
• Screening for cancer related heart health problems is available.

• Exercise!
  – Aerobic exercise has long been recognized to be protective against cardiovascular disease outcomes
  – Aerobic exercise is specifically good for those with and at risk for congestive heart failure

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What about Lymphedema?

• Does Exercise help with Lymphedema symptoms?
  – YES!

• In the PAL trial,
  – Control group women with lymphedema had 2X the number of ‘flare-ups’ compared with those who did weight-lifting
  – Weight-lifting women without lymphedema who had 5+ nodes removed were 70% less likely to develop increased arm swelling compared to the control group

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Could Exercise be helpful during Chemotherapy?

- Increasing evidence that exercise may improve the ability to complete chemotherapy – particularly WEIGHT TRAINING
  - Courneya et al. JCO 2007, Breast Cancer Exercise Trial
  - Caan et al., in press, observational evidence that muscle mass is associated with dose limiting toxicities

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Physical activity and obesity

• Question:
  – Can you lose weight through exercise alone?
Exercise alone works well to MAINTAIN, but not to LOSE Weight

• You cannot exercise your way out of a poor diet
  – http://www.youtube.com/watch?v=UQbuzsY_34Q
• Exercise is best for weight maintenance
• Exercise is useful for weight LOSS when combined with caloric restriction
Exercise and Type 2 Diabetes

• Treatment
  – American College of Sports Medicine position stand (July 2000)
    • PA is a ‘major therapeutic modality’ for type 2 diabetes
    • Effects dissipate in 72 hours, regular exercise is necessary
Exercise and Type 2 Diabetes

• Prevention
  – Epidemiologic evidence is strong
    • Migration studies
    • Cross-sectional studies
    • Longitudinal observational studies
  – Randomized controlled trials
    • Pan et al. 1997
      – 6 year RCT in China
      – Cumulative incidence was 41%, 46%, 44%, 68% in ex., ex + diet, diet, control
    • Diabetes Prevention Program
      – Ongoing Translation to YMCAs

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Exercise and Mental Health

• Paluska et al. Sports Medicine 2000
  – Depressed individuals typically less physically active
  – Exercise is not helpful in preventing depression
  – Exercise does help manage mild to moderate depression, anxiety, and panic disorder symptoms
    • Magnitude of effects similar to meditation
  – Helps more with acute than chronic anxiety
Physical Activity and Dementia

Figure 1. Kaplan–Meier survival estimates for the probabilities of being dementia-free.

Persons who exercised 3 or more times per week were more likely to be dementia-free than those who exercised fewer than 3 times per week.

Larson,
Annals
Internal Med 2006

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American College of Sports Medicine Roundtable on Exercise Guidelines for Cancer Survivors

EXPERT PANEL

Kathryn H. Schmitz, PhD, MPH, FACSM
Kerry S. Coumey, PhD
Charles Matthews, PhD, FACSM
Wendy Demark-Wahnefried, PhD
Daniel A. Galvão, PhD
Bernardine M. Pinto, PhD
Melinda L. Irwin, PhD, FACSM
Kathleen Y. Wolin, ScD, FACSM
Raanne J. Segal, MD, FRCPC
Alejandro Lucia, MD, PhD
Carole M. Schneider, PhD, FACSM
Vivian E. von Grunigen, MD
Arna L. Schwartz, PhD, FAAN

American Cancer Society (ACS) estimated that there were nearly 1.5 million new cases of cancer diagnosed in the United States and just more than 500,000 people who died from the disease (76). Currently, there are close to 12 million cancer survivors in the United States, and this number grows each year (66,70,122). Improved prognosis on the basis of earlier detection and newer
Nutrition and Physical Activity Guidelines for Cancer Survivors

Cheryl L. Rock, PhD, RD; Colleen Doyle, MS, RD; Wendy Demark-Wahnefried, PhD, RD; Jeffrey Meyerhardt, MD, MPH; Kerry S. Courneya, PhD; Anna L. Schwartz, FNP, PhD, FAAN; Elisa V. Bandera, MD, PhD; Kathryn K. Hamilton, MA, RD, CSO, CDN; Barbara Grant, MS, RD, CSO, LD; Marji McCullough, ScD, RD; Tim Byers, MD, MPH; Ted Gansler, MD, MBA, MPH.

Cancer survivors are often highly motivated to seek information about food choices, physical activity, and dietary supplements to improve their treatment outcomes, quality of life, and overall survival. To address these concerns, the American Cancer Society (ACS) convened a group of experts in nutrition, physical activity, and cancer survivorship to evaluate the scientific evidence and best clinical practices related to optimal nutrition and physical activity after the diagnosis of cancer. This report summarizes their findings and is intended to present health care providers with the best possible information with which to help cancer survivors and their families make informed choices related to nutrition and physical activity. The report discusses nutrition and physical activity guidelines during the continuum of cancer care, briefly highlighting important issues during cancer treatment and for patients with advanced cancer, but focusing largely on the needs of the population of individuals who are disease free or who have stable disease following their recovery from treatment. It also discusses select nutrition and physical activity issues such as body weight, food choices, food safety, and dietary supplements; issues related to selected cancer sites; and common questions about diet, physical activity, and cancer survivorship. CA Cancer J Clin 2012;62:242-274. ©2012 American Cancer Society.
Exercise

GENERAL PRINCIPLES OF PHYSICAL ACTIVITY

• All patients should be encouraged to be physically active and return to daily activities as soon as possible.
• Physical activity recommendations should be tailored to individual survivor’s abilities and preferences
• General recommendations for cancer survivors:7
  > Overall volume of weekly activity of at least 150 minutes of moderate-intensity activity or 75 minutes of vigorous-intensity activity or equivalent combination
  > Two to three weekly sessions of strength training that include major muscle groups
  > Stretch major muscle groups and tendons on days other exercises are performed

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Overview of common exercise recommendations for cancer survivors

• 150 minutes aerobic activity per week
• 2-3 times weekly strength training
• Flexibility on days when other activities are performed (daily)
MOST IMPORTANT MESSAGE FOR US ALL:

- AVOID INACTIVITY

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Low Risk: Exercise Guidelines

Early Stage
No Comorbidities
High Baseline Activity Level

Follow General Recommendations for Survivors

Okay for Unsupervised Exercise in home/community

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Moderate Risk: Exercise Guidelines

Peripheral Neuropathy
Musculoskeletal Issues
Bony Metastases or Poor Bone Health

Modify recommendations
Recommend Pre-exercise Medical Evaluation

Consider a Supervised Program (Personal Trainer, Physiotherapist, Occupational Therapist)

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High Risk: Exercise Guidelines

- Lung or Abdominal Surgery
- Ostomy
- Cardiopulmonary Disease
- Lymphedema
- Extreme Fatigue

Physician clearance prior to exercise
Medical Evaluation Prior to Exercise

Supervised Setting Recommended

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Exercise should be avoided...

- Immediately after surgery (wound healing)
- Severe Anemia
- Worsening/changing physical condition (e.g. lymphedema exacerbation)
- Active infection
Find an a qualified professional

• **ACSM Cancer Exercise Trainers**
  – [http://members.acsm.org/source/custom/online_locator/onlinelocator.cfm](http://members.acsm.org/source/custom/online_locator/onlinelocator.cfm)
  – Choose the ‘ACSM/ACS Certified Cancer Exercise Trainer’

• **Physical Therapists trained to work with oncology patients**
  – Choose the ‘Cancer’ practice area

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Exercise Prescription Basics

• Goal setting
  – Function as an outcome
• Start where you are
  – Start low, progress slow, let symptoms guide progression
• Use what you have
  – Laps around the house
• Do what you can
  – PROGRESSION is important, but in small increments
• Awareness of the variability of exercise tolerance
• Awareness of and adaptation for symptom changes

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Nutrition for the Survivor

• Being overweight after cancer
• Weight gain after cancer
• Maintaining a healthy body weight
• Know your body mass index (BMI) and maintain it in the healthy range of 18-24.9

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Nutrition for the Survivor

• Maintaining a healthy body weight is the most important thing to focus on in the realm of nutrition.

• There is no single food, supplement, or nutrient that can be avoided or eaten that will be as influential on your risk of recurrence as maintaining a healthy weight.
Dietary Guidance from the American Cancer Society

- Achieve and maintain a healthy weight. Survivors who are overweight or obese should limit high-calorie foods and beverages and increase physical activity to help with weight loss.
- Eat at least 2 ½ cups of fruits and vegetables every day.
- Choose 100 percent whole grain foods such as 100 percent whole grain breads and cereals, brown rice, millet and quinoa.
- Limit red meat and processed meat. Choose chicken, fish or beans more often.
- Limit "bad" fats (saturated and trans fats). These are found in foods such as red meat, fatty deli meats, poultry skin, full fat dairy, fried foods, margarine, donuts and microwave popcorn.
- Eat "good" fats (polyunsaturated and monounsaturated fats). These are found in foods such as olive and canola oil, nuts and natural nut butters, avocado and olives.
- Limit alcohol intake to less than 1 drink a day for women and fewer than 2 drinks a day for men.

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Thank you!

Questions?

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Marla, a Sharsheret peer supporter, shares her personal story about navigating healthy living as a cancer survivor.

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QUESTION & ANSWER SESSION

To ask a question, please dial *1 or enter your question into the chat box.

Questions will be addressed in the order received.

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info@sharsheret.org
www.sharsheret.org

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