Integrative Oncology for Pancreatic Cancer Patients

June 27, 2016

If you experience technical difficulty during the presentation:

Contact WebEx Technical Support directly at:
US Toll Free: 1-866-229-3239
Toll Only: 1-408-435-7088
or
Submit a question to the Event Producer via the Q&A Panel

Thank you to our webinar sponsor:

www.lillyoncology.com
Thank you to all of our Partners in Progress:

Antonella P. Arnone  Sarah A. Carstensen  Lisa M. Godwin
Bryan H. Atwood  Alvin & Alfred Cantarino  Mary Griep
Rachel S. Bach  Kathy & Dennis Cronin  Heather & Paul Haaga
Theodore W. Batterman/Family Foundation, Inc.  Alan J. DeGennaro  Teresa Hilton
Susan R. Bennett  Michael Denardo  Dawn James
Lee Berg  Joan Egrie  Carrie Johnson
Stephanie W. Bignon  Ronen Elad  Michael L. Kahn
Georgia and June Block Family Foundation  Epstein Family Foundation  John Khoury
Brian T. Brandt  The Flachs Family Charitable Fund  Kiva Foundation
Jeffrey Browne  Karen and Bill Frederick  Hilarie Koplow-McAdams
Lisa M. Burrows  Rex W. Fuller  midrag Kukrika
Humberto Kviat  Pizza by Pappas, Inc.  Christopher Smith
James D. Loeffelbein  Albert E. Pisopo  John M. Sobrato
Michela Love  Jim Prewitt  Marianne & Roger Staubach
The Florence S. Mahoney Foundation  Rawson Charitable Foundation  Barbra Streissand
Frank C. Marshall  Nancy Rickerson  Leona Tang
Erik Mason  Joshua Rogers  The Susanne & Gary Tobey Family Foundation
Allan K. McMorris  Jeanne W. Rusch  Yoshiko & Eugene Van Dyk
Mark A. Montgomery  The Robert and Marion Schamann Bruzowski Foundation  Linda J. Venetie Cancer Research Foundation
Daniel and Janet Mordecai Foundation  Hollie Schulte  Eileen M. Waerzynik
Sam Naficy  The Barn Schwartz Family Foundation  Debra M. Weinstein
Mark O. Navinger  Amanda Seyfried  Joyce G. Weilman
Allison Nowell  Spencer Siai  Susan & Richard Worm
THE ROLE OF SUPPORTIVE & INTEGRATIVE ONCOLOGY FOR PANCREATIC CANCER PATIENTS

Pancreatic Cancer Action Network Webinar
June 27, 2016

Richard T. Lee, MD
Associate Professor
Parker Hannifin–Helen Moss Cancer Research Foundation Professor of Integrative Oncology
Director, Supportive & Integrative Oncology Program
Seidman Cancer Center
University Hospitals & Case Western Reserve University

Objectives

- To understand the terms alternative, complementary, and integrative medicine.
- To be familiar with comprehensive
- To know how a supportive & integrative approach may benefit you
Outline

- Background & Principles
- Seidman Cancer Center Clinical Philosophy and Model
- Creating your plan...

Complementary and Alternative Medicine (CAM)

- National Center for Complementary and Integrative Health (NCCIH) – National Institutes of Health (NIH)
  - Previously the Office of Alternative Medicine (1991) and the National Center for Complementary and Alternative Medicine (NCCAM) 2014

- Definition
  - Healthcare approaches developed outside of mainstream Western or conventional medicine
Categories of CAM - NCCAM

1. Natural Products
   • Dietary supplements, herbal products, shark cartilage

2. Mind-Body Interventions
   • Meditation, prayer, mental healing, music therapy

3. Manipulative and Body-Based Methods
   • Chiropractic, osteopathic, massage, manipulation

4. Other - Whole Medical Systems, Energy Therapies, and Movement Therapies
   • Traditional Chinese medicine and Reiki

The Difference Between Alternative & Complementary

- Alternative medicine is used in place of conventional medicine.

- Complementary medicine is used together with conventional medicine.

- Integrative medicine…
The practice of medicine that reaffirms the importance of the relationship between practitioner and patient

Focuses on the whole person

Informed by evidence

Makes use of all appropriate therapeutic approaches, providers, and disciplines to achieve optimal health and healing
How do we best achieve this goal?
### MORNINGS

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Java - Natural Raw Meal, 2 scoops taken with 12 ounces of organic orange juice.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. &quot;Dana's Oil 3-6-9 Blend, 2 tablespoons;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Pure Multivitamin, 1 tab;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Host Defense - 17 Premier Mushrooms, 10 drops;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Melatonin, 10 drops;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Selenium, 10 drops;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Marine Phytoplankton, 10 drops;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. M. Green Tea Extract, 3 caps @ 725 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Turmeric (Curry), 2 caps @ 527 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Turmericforce, 1 softgel @ 400 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. 'Viggora, 5 caps @ 10 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Folic Acid, 1 cap @ 800 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Ginger, 3 caps @ 500 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Beta - 1, 3D Glucan, 2 caps @ 500 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Echinacea, 2 caps @ 400 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Acai, 2 caps @ 400 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Resveratrol, 3 caps @ 500 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Raw Vitamin C, 3 caps @ 500 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Phycocerol, 2 tabs @ 50 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Vitamin D3, 4 tabs @ 1000 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Aged Garlic Extract, 2 caps @ 600 mg;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. St. Joseph Coated Aspirin, 2 tabs;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Omega Oil 1 cap a month;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. <em>BioPower - Elite Mushrooms, 5 caps</em>;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. <strong>Host Defense, 17 Premier Mushrooms, 3 caps;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. *IP &amp; Inositol Plus Maitake &amp; Cat's Claw, 3 caps @ 130 mg; **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. *IP &amp; Inositol - Rapid Release Tablets, 1 tabs @ 130 mg; **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Super B-Complex.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What Are the Risks?

- Treatment Efficacy
- Patient Safety
- Doctor-Patient Relationship
  - Understanding the patient
  - Unmet needs
- Economic
- Time
- Energy
"Looks like he died of natural causes."
Catharanthus roseus (Periwinkle)  
Vinblastine

Camptotheca acuminata (Happy Tree)  
Irinotecan

Taxus brevifolia (Yew Tree)  
Paclitaxel

Podophyllum peltatum (Mayapple)  
Etoposide
# Surprising Dangers of Vitamins & Supplements

How to protect your family

## Table 3. Herbs and Food and Drug Administration (FDA)-Approved Drugs: Similarities and Differences

<table>
<thead>
<tr>
<th>Factor</th>
<th>Legal Medications (FDA-Approved)</th>
<th>Herbal Therapies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mechanism</strong></td>
<td>Biochemical</td>
<td>Biochemical</td>
</tr>
<tr>
<td><strong>Origin</strong></td>
<td>25% Plant origin</td>
<td>Rare plants</td>
</tr>
<tr>
<td><strong>Efficacy</strong></td>
<td>Evidence required, but not always based on well-controlled trials</td>
<td>Proof not required</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Must be well studied, within acceptable limits, and detailed on drug label or insert</td>
<td>Evidence of safety not required and often unattainable</td>
</tr>
<tr>
<td><strong>Dose</strong></td>
<td>Established, usually by dose-response studies</td>
<td>Burden of proof with FDA to show herbal therapies unsafe</td>
</tr>
</tbody>
</table>

- **Pharmacokinetics**: Usually well characterized
- **Potency**: Standardized
- **Proof of purity**: Required
- **Identification**: Some confusion possible with consistence of generic and multiple trade names
- **Quality control**: Required
- **Cost**: Wide range
- **Insurance coverage**: Often

*Not necessary standardized by content of active ingredients, which are often unknown.*

- **Rarely known**: Varieties with genetics, growing conditions, time harvested, plant part used, preparation, and storage
- **Rarely strictly**: High potential for contamination, history of case reports
- **Problems**: Beginning with misidentification of plants at harvesting
- **Products should be labeled with and chosen by scientific name (genus species, eg. Echinacea purpurea, the most used and studied Echinacea species—many of its common names are shared by other plants)
- **Not required**: Improving with self-regulation by herb industry
- **Highly variable**: Echinacea are the most concentrated and cost effective
- **Rarely**:
* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.

Development of Methotrexate

The New England Journal of Medicine

Copyright, 1948, by the Massachusetts Medical Society

Volume 238  JUNE 3, 1948  Number 23

TEMPORARY REMISSIONS IN ACUTE LEUKEMIA IN CHILDREN PRODUCED BY FOLIC ACID ANTAGONIST, 4-AMINOPTERÖYL-GLUTAMIC ACID (AMINOPTERIN)*

SIDNEY FABER, M.D.,† LOUIS K. DIAMOND, M.D.,‡ ROBERT D. MERCE, M.D.,§ ROBERT F. SYLVESTER, JR., M.D.,¶ AND JAMES A. WOLFF, M.D.‖

BOSTON
Herbs & Supplements - Benign?

- Folate & Methotrexate
  - Increased risk of cancer and death

- Beta Carotene & Vitamin E
  - Increased risk of cancer and death

- Vitamin E & Beta Carotene
  - H&N radiation treatment

Goodman, GE et al., JNCI 2004; Bairati, I et al, JNCI 2005

**EFFECTS OF A COMBINATION OF BETA CAROTENE AND VITAMIN A ON LUNG CANCER AND CARDIOVASCULAR DISEASE**

Gilbert S. Ommen, M.D., Ph.D., Gary E. Goodman, M.D., M.S., Mark D. Thorburn, Ph.D., John Bailar, M.D., Maris R. Cullen, M.D., Andrew Glass, M.D., James P. Kegel, M.D., Frank L. Meyers, Jr., M.D., Barbara Valdes, Dr.P.H., James H. Williams, Jr., M.D., Scott Baenhart, M.D., M.P.H., and Samuel Hammar, M.D.*

月, 6月 2日

**THE NEW ENGLAND JOURNAL OF MEDICINE**

5月 2日, 1996

4月 2日, 1996

**Active treatment**

**Placebo**

**Cumulative Incidence of Lung Cancer (%)**

**Cumulative Mortality (%)**
A Randomized Trial of Antioxidant Vitamins to Prevent Second Primary Cancers in Head and Neck Cancer Patients

Isabelle Baïsset, François Meyer, Michel Gélinas, André Fortin, Abdennour Nabid, François Brochet, Jean-Philippe Mercier, Bernard Tétu, François Harel, Benoît Masse, Éric Vigneault, Sylvie Vass, Pierre del Vecchio, Jean Roy†

Patient Safety

- Serious side effects
  - Kava kava
- Contamination
  - Heavy Metals in Traditional Chinese Herbs
  - PC-SPES
- Drug interactions
  - St. John’s Wort
  - Grapefruit Juice

Potential Risks

**Hepatotoxicity from green tea: a review of the literature and two unpublished cases**

**Acute Cyanide Toxicity Caused by Apricot Kernel Ingestion**

**Acquired Long QT Syndrome and Monomorphic Ventricular Tachycardia After Alternative Treatment With Cesium Chloride for Brain Cancer**

**UROTHELIAL CARCINOMA ASSOCIATED WITH THE USE OF A CHINESE HERB (ARISTOLOCHIA FANGCHI)**

Ayurvedic herbal medicine and lead poisoning

**DNA barcoding detects contamination and substitution in North American herbal products**

Steven G Newmaster, Meghan Giguere, Dhivya Shanmughanandhan, Sathishkumar Ramalingam, and Subramanyam Ragupathy

![DNA barcoding graph](image)
A phase I/II trial of a polysaccharide extract from *Grifola frondosa* (Maitake mushroom) in breast cancer patients: immunological effects

Gary Deng · Hong Lin · Andrew Scidman · Monica Fornier · Gabriella D'Andrea · Kathleen Wesa · Simon Yeung · Susanna Cunningham-Rundles · Andrew J. Vickers · Barrie Cassileth

![Graph showing change in baseline vs. Maitake dose (mg/kg/day)]

**Supportive & Integrative Clinical Model**

*The Need for a New Medical Model: A Challenge for Biomedicine*

George L. Engel
Nutrition & Physical Activity
Americans can prevent 1/3 of the most common cancers*

**Staying Lean**
- Breast Cancer** 38% or 86,210
- Colorectal Cancer 45% or 64,557
- Lung Cancer 36% or 81,417
- Gastric Cancer 21% or 2,000
- Endometrial Cancer 7% or 5,000
- Pancreatic Cancer 30% or 17,126

**Eating Smart**
- Mouth, Hypopharyngeal and Laryngeal Cancer 6% or 50,144
- Liver Cancer 1% or 4,369

**Moving More**
- Stomach Cancer 4% or 10,620

*Shown for each cancer: estimated percentage of cancers and number of cases that could be prevented annually through healthy diet, regular physical activity and being lean.

**Female only.

American Institute for Cancer Research.

---

Cancer Care Faces a Growing Crisis: Obesity

ASCO Connection

September 2014
Obesity Trends* Among U.S. Adults
BRFSS, 1990, 2000, 2010
(*BMI ≥30, or about 30 lbs. overweight for 5’4’’ person)

- Healthy body weight (normal BMI)
- Exercise regularly – 150 minutes/week of moderate intensity or 75 minutes of vigorous activity
- 5 servings of fruits and vegetables per day
- Limit processed meat, red meat, and refined grains
- Limit alcohol
Following Cancer Prevention Guidelines Reduces Risk of Cancer, Cardiovascular Disease, and All-Cause Mortality

E Cancer mortality risk among men

- Never Smokers
- Former Smokers

F Cancer mortality risk among women

- p for trend among never smokers = 0.1
- p for trend among former smokers < 0.0001
- p interaction = 0.1

- p for trend among never smokers < 0.0001
- p for trend among former smokers = 0.2
- p interaction = 0.3

The NEW ENGLAND JOURNAL of MEDICINE

Overweight, Obesity, and Mortality from Cancer in a Prospectively Studied Cohort of U.S. Adults

Eugenia E. Calle, Ph.D., Carmen Rodriguez, M.D., M.P.H., Kimberly Walker-Thurmond, B.A., and Michael J. Thun, M.D.

Figure 1. Summary of Mortality from Cancer According to Body-Mass Index for U.S. Men in the Cancer Prevention Study II, 1982 through 1998.

For each relative risk, the comparison was between men in the highest body-mass-index (BMI) category (indicated in parentheses) and men in the reference category (BMI, 18.5 to 24.9). Asterisks indicate relative risks for men who never smoked. Results of the linear test for trend were significant (P<0.05) for all cancer sites.

Figure 2. Summary of Mortality from Cancer According to Body-Mass Index for U.S. Women in the Cancer Prevention Study II, 1982 through 1998.

For each relative risk, the comparison was between women in the highest body-mass-index (BMI) category (indicated in parentheses) and women in the reference category (BMI, 18.5 to 24.9). Asterisks indicate relative risks for women who never smoked. Results of the linear test for trend were significant (P<0.05) for all cancer sites.
**Acupuncture**
- Pain (1A)
- Nausea (1A)
- Xerostomia (1B)
- Hot Flashes (1B)
- Fatigue (2C)
- Neuropathy (2C)
- Insomnia

**Oncology Massage Therapy**
- Mood Disturbance (1B)
  - Anxiety
  - Depression
- Pain (1B)
- Constipation (1C)
- Neuropathy
Music Therapy

- Stress (1B)
- Mood Disturbance (1B)
  - Anxiety
- Quality of Life (1B)

Mind-Body Practices

- Stress (1B)
- Mood Disturbance (1B)
  - Anxiety
- Quality of Life (1B)
- Insomnia
Basic Principles

- “Real” Natural Options

- Balance – Yin/Yang
  - More is not necessarily better
### Risk factors for pancreatic cancer: a summary review of meta-analytical studies

Patrick Maisonneuve\(^1\) and Albert B Lowenfels\(^2\)

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Population Exposed</th>
<th>Relative Risk</th>
<th>Attributable Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco smoking</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helicobacter pylori infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-O blood group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diabetes mellitus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reducing alcohol intake</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing red or processed meat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavy alcohol intake</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of chronic pancreatitis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of cholecystectomy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of gastritis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing physical activity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of allergy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing fruit or folate intake</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Basic Principles

- Small Steps & Goals, Big Vision & Goals
- Dose & Quality
- Enjoyment
Assess Your Needs

Work with Your Medical Team

Set Goals

Common Needs

- Physical:
  - Nutrition
  - Physical Activity
  - Symptoms
- Mind-Spiritual
  - Stress & Anxiety
  - Finding Meaning
- Social Support
  - Connecting with others
Physical Activity, Obesity, Height, and the Risk of Pancreatic Cancer

Figure. Pancreatic Cancer According to Physical Activity and Body Mass Index From the NHS and HPFS Cohorts

NHS indicates Nurses’ Health Study; HPFS, Health Professionals Follow-up Study.

Obesity Adversely Affects Survival in Pancreatic Cancer Patients

Robert R. McWilliams, M.D.1, Martha E. Matsumoto2, Patrick A. Burch, M.D.2, George P. Kim, M.D.1, Thorvardur H. Halldarson, M.D.2, Mariza de Andrade, Ph.D.1, Kaye Reid-Lombardo, M.D.2, and William R. Bani, M.B.2

Age

BMI

Sex

Hazard Ratio and 95% CIs

Resectable

Locally advanced

Metastatic
Nutrition Principles

- 2 HQ’s
  - Healthier Choices
  - Quality Sources
  - How are you eating food
  - Quantity
Nutrition

- Fruits & Vegetables (5-6 servings per day minimum)
- Protein
- Carbohydrates
- Fats & Oils
- Limit Processed Foods
  - High Calorie, Low Nutrition Value
- Limit Alcohol

Natural Vitamins

<table>
<thead>
<tr>
<th>Fruits</th>
<th>Amount</th>
<th>Minerals Contained</th>
<th>Vitamins Contained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acai</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avocado</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Only those vitamins which appear in significant quantities are listed. For more detailed information, please visit the United States Department of Agriculture, USDHHS Food & Nutrition Center.
How Many Calories?

Sure You Want that Snack?

Here's how much exercise a 150-pound person would have to do to burn off the calories in some popular snacks.¹

NY Fries
Regular (240 g) 580 calories
1 hr. 55 min.

Doubles Tennis

Starbucks
Cinnamon Dolce Latte, whipped cream
Ventil (20 oz.) 410 calories
Jogging 50 min.

Kernels Original Butter salt Popcorn, no added "butter"
Small (8 cups) 410 calories
Low-impact Aerobics 1 hr. 15 min.

Tim Hortons
Apple Fritter (95 g) 300 calories
Brisk Walking (5.5 km/hr) 1 hr.

¹Arizona State University Health, Lifestyle Research Center (https://www.asu.edu/hsr/compare.html) (calories are approximate).
Can physical activity modulate pancreatic cancer risk? a systematic review and meta-analysis

Michael A. O’Rorke, Marie M. Cantwell, Chris R. Cardwell, Helen G. Mulholland and Liam J. Murray

Cancer Epidemiology Health Services Research Group (CEHSSRG), Centre for Public Health, Queen’s University Belfast, Belfast, Northern Ireland, United Kingdom

<table>
<thead>
<tr>
<th>Study ID</th>
<th>Total Physical Activity</th>
<th>RR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stolzenberg-Solomon et al. (2002)</td>
<td>Moderate/heavy vs. Sedentary</td>
<td>0.42 (0.22, 0.83)</td>
</tr>
<tr>
<td>Barrington de Gonzalez et al. (2009)</td>
<td>Very active vs. Inactive</td>
<td>0.50 (0.30, 1.35)</td>
</tr>
<tr>
<td>Newlings et al. (2007)</td>
<td>MET hr/day Q4 vs. Q1</td>
<td>1.00 (0.96, 1.02)</td>
</tr>
<tr>
<td>Callan et al. (2009)</td>
<td>MET hr/day Q4 vs. Q1</td>
<td>0.52 (0.36, 0.81)</td>
</tr>
<tr>
<td>Innis et al. (2008)</td>
<td>MET hr/day Q4 vs. Q1</td>
<td>0.52 (0.36, 0.89)</td>
</tr>
<tr>
<td>Overall*</td>
<td>*I-squared=35.2%, p heterogeneity=0.187</td>
<td>0.72 (0.52, 0.99)</td>
</tr>
</tbody>
</table>

A Progressive Postresection Walking Program Significantly Improves Fatigue and Health-Related Quality of Life in Pancreas and Periampullary Cancer Patients

Theresa P Yeo, PhD, MPH, MSN, AOCNP, Sherry A Burrell, RN, CNE, ACNS-BC, Patricia K Sauter, MSN, ACNP, Eugene P Kennedy, MD, FACS, Harish Lavu, MD, FACS, Benjamin E Leiby, PhD, Charles J Yeo, MD, FACS

- 80% versus 58% still walking at the end of the study
  - Walking 2 miles versus 1 mile
- Improvements in fatigue, pain, and physical symptoms
Physical Health

- **Assessment**
  - Body Mass Index
  - Waist Circumference
- **Nutrition**
- **Physical Activity**
- **Planning**
  - Schedule

Physical Activity

- 3 hours of cardiovascular exercise per week
  - 30 minutes a day
- **Resistance/Weight Training**
- **Consider Supervision**
- **Monitor Your Progress**
**Mind-Spiritual Health**

- Build from existing strengths
- Learn a new skill
- Practice
  - 15-30 minutes 3-5 per week

---

*Multicenter, Randomized Controlled Trial of Yoga for Sleep Quality Among Cancer Survivors*


![Graph showing improvement in global sleep quality and subscales from baseline to postintervention on the Pittsburgh Sleep Quality Index.](image-url)
Social Health

- Hobbies
- Try something new
- Volunteer
When to Refer?
Continuum of Cancer Care

- Diagnosis
- Surgery
- Chemotherapy
- Radiation

Prevention — Active Treatment — Survivors

- Meditation
- Diet & Exercise
- Acupuncture
- Music Therapy
Summary – Integrative Medicine

- Build a Comprehensive Care Plan
  - Physical-Psychological/Spirit-Social Dimensions
  - Team Approach
- Optimal Health and Healing
  - Improve Outcomes – Cancer Control, Symptoms, Function
- Personalized, Evidence-based, Safe

Principles

- Evidence-Base
- Balance
- True Natural Options
- Personalize
- Enjoy
Save the Date

ADVANCING THE GLOBAL IMPACT OF INTEGRATIVE ONCOLOGY
SOCIETY FOR INTEGRATIVE ONCOLOGY
13TH INTERNATIONAL CONFERENCE

November 5-7, 2016
Hilton Miami Downtown • Miami, Florida

Thank You
Thank you for your participation.

If you have questions, please contact Patient Central at (877) 272-6226 or e-mail patientcentral@pancan.org.

www.pancan.org