

II. Nourishment

Nutrition

What we eat matters!

- >1000 different phytonutrients identified to have potential chemopreventive activities¹



- the foods we eat can change genetic expression²
- synergy of some phytonutrients with chemotherapy and radiation^{3,4}

What to Eat?

"Eat food. Not too much. Mostly plants."

- Michael Pollen



Whole Foods, Plant-Based Diet

Nutrition

Diet modification trials in breast cancer patients

Diet Intervention	Cancer	n	Design	Outcomes	Results	Reference
Low-fat diet - 50:50:50%	Breast, early stage, postmen	2437	RCT	Relapse events, all- ES, subjects only -24% reduction in recurrence	0.75 0.53	Chlebowski, 2006 (WHS)
Low-fat, high fiber, high vegetable	Breast, early	3088	RCT	Breast cancer event Mortality:	0.96 0.91	Pierce, 2007 (RNHEL)
Support group, low-fat diet, exercise	Breast, regional	227	RCT	Recurrence, Cancer mortality, All-cause mortality	0.55 0.44 0.67	Anderian, 2008
Diet to support 10-kg weight loss	Breast, stage unknown	54	RCT	Cancer mortality, All-cause mortality	0.38 0.78	de Waard, 1993
Diet to support 10-kg weight loss	Breast, stage unknown	46	RCT	Cancer mortality, All-cause mortality	0.40 0.29	de Waard, 1993
Lower kcal, low-fat diet	Breast, stage unknown	110	RCT	Recurrence	0.20	Supittinnakya, 1992

Nutrition references

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2. Hardy, TM and TO Tollefsbol. *Epigenetic diet: impact on the epigenome and cancer*. *Epigenomics* 2011 August 1;3(4):503-18.
3. Lev-Ar, S, Strier, L, Kazanov, D, Madar-Shapiro, L, Dvory-Sobol, H, et al. *Celecoxib and curcumin synergistically inhibit the growth of colorectal cancer cells*. *Clin Cancer Res* 2005;11(18):6738-44.
4. Sharma, G, Tyagi, AK, Singh, RP, Chan, D, and R Aganwal. *Synergistic anti-cancer effects of grape seed extract and conventional cytotoxic agent doxorubicin against human breast carcinoma cells*. *Breast Cancer Res Treat* 2004;85:1-12.

AICR Patient Education on Nutrition and Physical Activity



Evidence base for Nutritional Supplements

Is There Solid Science? Supplements Help Relieve Treatment Side Effects					
Condition	Herb	Contra-Indications	Evidence	Dosage	Reference
Delayed nausea and vomiting	Ginger	Low gastric contents, diarrhea	RCT	100 mg 4x daily (max 400 mg)	Shimizu et al, 2007
Fatigue	L-carnitine	None	Open label trials	100 mg/day	Carroll et al, 2007
Fatigue	Ginseng (Asian or American)	ED: 100 mg daily (max 200 mg daily for 2-4 wks)	Small trials*	2-3 grams	Hong et al, 2006
Constipation, early, acute, recurrent	CoQ10	None	Small trials	10-200 mg/day	Crabtree 2005
Mucositis/ Stomatitis	Glutamine	None	RCTs	0.5 g/kg/day (up to 10g)	Chen 2007
Mucositis/ Stomatitis	Acetyl-L-carnitine	Caution: hepatic disease	RCTs	100 mg bid	De Groot 2007
Mucositis/ oral discomfort	Catandula	Alcohol, may cause GI upset	RCT	100 mg 4x daily	Prasad 2006

*No non-cancer patients

Sentinel Article

Integrating Dietary Supplements Into Cancer Care

Integrative Cancer Therapy
2013; 10(2):206-213
https://doi.org/10.1007/s12015-013-9240-0
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Moshe Frankel, MD^{1,2}, Donald I. Abrams, MD¹, Elena J. Ladus, MS, RD¹, Gary Dang, MD¹, Mary Hardy, MD¹, Jillian L. Capodice, LAC, MS¹, Mary F. Wingardner, PA-C, MPAS¹, J. K. Gubli, MS¹, K. Simon Young, PharmD, MBA, LAC¹, Heidi Kassmann, ND, FABNO¹, and Keith I. Block, MD¹

Abstract
Many studies confirm that a majority of patients undergoing cancer therapy use self-administered doses of complementary therapies, mainly dietary supplements. Unfortunately patients often do not report their use of supplements to their providers. The failure of physicians to communicate effectively with patients on this issue may result in a loss of trust within the therapeutic relationship and in the collection by patients of harmful, useless, or ineffective and costly nonconventional therapies when effective integrative strategies may exist. Poor communication may also lead to dissatisfaction of patient autonomy and self-efficacy and thereby interfere with the healing response. To be open to the patient's perspective, and sensitive to his or her need for autonomy and empowerment, physicians may need a shift in their own perspectives. Through this editorial approach, it is to discuss both the facts and the uncertainty with the patient, in order to reach a mutually informed decision. Today's informed patients truly value physicians who appreciate them as equal participants in making their own health care choices. To reach a mutually informed decision about the use of these supplements, the Clinical Practice Committee of the Society of Integrative Oncology undertook the challenge of providing basic information to physicians who wish to discuss these issues with their patients. A list of healing supplements that have the best suggestions of benefit was constructed for leading researchers and clinicians who have experience in using these supplements. This list includes curcumin, glutamine, vitamin D, flaxseed, turmeric, fish oil, green tea, milk thistle, Astragalus, melatonin, and probiotics. The list includes basic information on each supplement, such as evidence on effectiveness and clinical trials, adverse effects, and interactions with medications. The information was constructed to provide an up-to-date base of knowledge, so that physicians and other health care providers would be aware of the supplements and be able to discuss realistic expectations and potential benefits and risks.

Bringing Nourishment to Life Through Culinary Translation

- ### Eight Principles of Food Selection
- Whole
 - Local
 - Fresh
 - In harmony with tradition
 - Natural
 - Balanced
 - Seasonal
 - Delicious

- ### Steps to Delicious
- Start with good quality ingredients—choose from whole foods
 - Build the Flavor with the right amount of:
 - Fat
 - Acid
 - Salt
 - Sweet
 - Add herbs and spices to give a “personality” and flavor signature (i.e. Mediterranean, Mexican, Asian)

III. Psychosocial Support

Psychosocial Support: The Rationale and The Evidence



Cancer Care for the Whole Patient: Meeting Psychosocial Health Needs
 Committee on Psychosocial Services to Cancer Patients/Families in a Community Setting, Institute of Medicine
 ISBN: 978-0-309-11103-4, 464 pages, 6 x 9, (2007)

Management of Distress in Cancer Patients

Jimmie C. Holland, MD, and Yesne Alici, MD

Abstract Psychosocial distress is highly prevalent and diverse at all stages of cancer care. In the early 21st century, screening, assessment, and management of psychological distress in cancer patients are supported by a growing body of literature. Psychosocial care of cancer patients is now considered an essential component of quality cancer care by the Institute of Medicine. Increasing numbers of professionals from different disciplines are being trained in the United States and internationally to provide consultative services in support of the psychological care of cancer patients. This review article highlights the psychological distress experienced by cancer patients, featuring an overview of the assessment and management of psychological distress in the context of cancer as well as the common psychiatric disorders experienced by cancer patients at all stages of disease.

Source: The Journal of Supportive Oncology, 8(1), 4-12

„Finding the body: Psychotherapy and cancer survival.

Spiegel D
 Department of Psychiatry & Behavioral Sciences, Stanford University School of Medicine, Stanford, California, USA.

Abstract
OBJECTIVES: This article reviews evidence regarding effects of psychotherapy on overall cancer survival time. Special emphasis is given to research on adverse effects of depression on cancer survival, breast cancer, and mediating psychophysiological pathways linking psychosocial support to longer survival.
DESIGN: It reviews all published clinical trials addressing effects of psychotherapy on cancer survival, emphasizing depression, breast cancer, and psychophysiological evidence linking stress, depression, and support to cancer survival.
METHODS: Systematic literature review and synthesis.
RESULTS: Eight of 15 published trials indicate that psychotherapy enhances cancer survival time. No studies show an adverse effect of psychotherapy on cancer survival. Potential psychophysiological mechanisms linking stress to shorter survival include dysregulation of diurnal cortisol, increased pro-inflammatory cytokines, reduced natural killer cell activity, shorter telomeres and lower telomerase activity, glucocorticoid-mediated suppression of p53 and BrCA1 gene expression, and sympathetic nervous system activation of vascular endothelial growth factor.
CONCLUSIONS: Stress and support affect the course of cancer progression.

Source: Br. J. Health Psychol., 2013, August 26.

IV. Physical Activity

Data Physical Activity and Survival

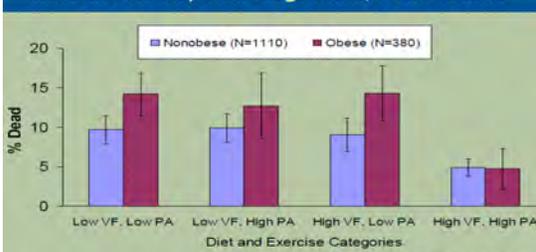
Cancer-Physical Activity Associations (Friedenreich, Eur J Cancer, 2010)

PAR, M*		PAR, F*
Colon: 15-19%	Convincing: Colon	Colon: 16-21%
	Probable: Breast, Endometrial	Breast: 17-22% Endo: 20-26%
Lung, 18-23% Prost, 11-15%	Possible: Lung, Prostate, Ovarian	Lung, 20-26% Ovarian, 13-16%
	Null or insufficient evidence: Hematologic, Cervix, Rectal, Gastric, Pancreas, other Genitourinary	

*European data

Physical Activity, Nutrition and Obesity

WHEL: Survival in Obese and Non-obese Role of Activity and Vegetable/Fruit Intake



Diet and Exercise Category	Nonobese (% Dead)	Obese (% Dead)
Low VF, Low PA	~10	~14
Low VF, High PA	~10	~13
High VF, Low PA	~9	~14
High VF, High PA	~5	~5

Perce JP et al. JCO, 2007

Physical activity

Exercise observational studies in cancer patients

Physical activity (PA) measurement	Cancer	n	Design	Outcomes	Results	Reference
PA, METs throughout	Breast, I-II	4826	Coh	Total mortality, Cancer mortality	72, 65	Chen, 2011
Stair vs slow walking	Prostate, localized	1455	Coh	Progression	52	Ridman, 2011
Leisure time, PA	Kidney	702	Survey	QOL, active vs sedentary	8.8 points better	Tsai, 2011
PA, METs, post-diagnosis	Breast	4543	Coh	Cancer mortality, All-cause mortality	61, 54	Fear, 2011
PA, METs, at recruitment	Breast	4462	Coh	Cancer mortality for 3-9 METs, 9-15 METs, >15 METs	88, 99, 51	Hicks, 2008
PA, METs, Nurses Health Study	Breast, I-II	2987	Coh	Cancer mortality for 3-9 METs, 9-15 METs, >15 METs	80, 92, 56	Holmes, 2005
PA, METs, obese patients in 6-yr period	Colon, III	832	Obs. in RCT	Disease-free surv. for 10-27 METs, >27 METs, 0-10 METs	51, 55, 30%	Meyerhardt, 2004

Results are hazard ratios or QOL surveys. In all cases subjects with higher exercise did better compared to least active subjects.

A Moving Experience



V. Spiritual Care

Research Findings

- Religion and spirituality is important to 78% cancer patients. *(Alcom et al, 2010)*
- Spiritual needs and spiritual seeking found in majority of patients with advanced cancer. *(Winkelman et al, 2010; Pearce et al, 2012)*
- Spirituality/spiritual wellbeing associated with improved Q of L and psychosocial functioning. *(Petit and Balboni, 2013)*
- Health care providers supporting patients' spiritual needs correlated with better satisfaction with care, improved Q of L and psychological/spiritual adjustment and less aggressive care at end of life. *(Petit and Balboni, 2013)*

Spiritual Assessment Tool

F: Faith or Beliefs
I: Importance and Influence
C: Community
A: Address

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Transformatio n





Lectio Divina

Listen
 Reflect
 Respond
 Rest



Spiritual Exploration



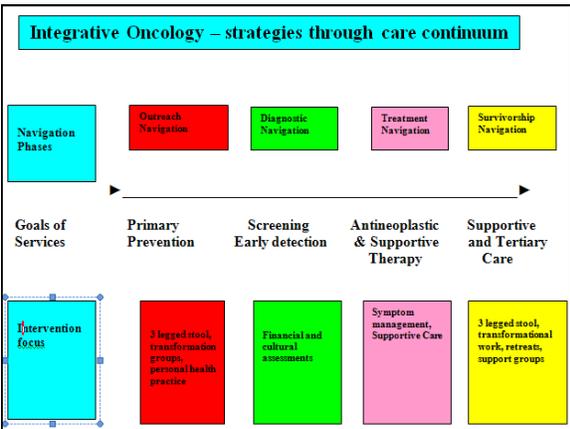
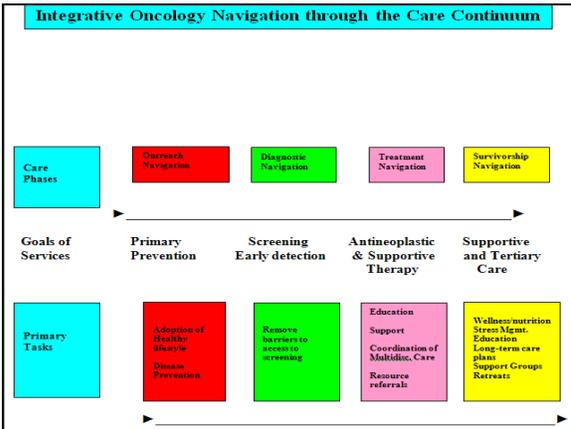
- Readings
- Journaling
- Guidance
- Faith Traditions
- Retreats
- Chanting/
Meditative practice

Case Study: Revisited

Case presentation

- 46 year old mother of 2 grade school aged boys diagnosed with stage IV triple negative breast cancer metastatic to a single bone site.
 - Conventional Interventions
 - Screening mammogram, ultrasound biopsy, MRI breasts. PET CT scan. Bone biopsy, MRI brain.
 - IV chemotherapy for close to 6 months. Bilateral mastectomy. Radiation to bone met. Continued IV Zomefa therapy.
 - Continued monitoring of blood work and physical examinations in long term follow up.
 - Took high dose antioxidants and herbs during chemo and RT and did not tell MD. Missed multiple appointments due to social, family concerns. Did not complete all therapy. Continued Standard American Diet.
 - When fatigue set in, slept more often. Developed arm lymphedema. Lost to follow up. Went to faith healer who prescribed home made herbal supplements.

What Integrative Care Would you Add?



Guidelines

SOCIETY FOR INTEGRATIVE ONCOLOGY
Evidence-Based Clinical Practice
Guidelines for Integrative Oncology:
Complementary Therapies and Botanicals

Available at:
<http://www.integrativeonc.org/index.php/sio-publishes-2009-practice-guidelines>

Practical Matters

Navigating Responsibly

Guiding patients through options to make safe, effective choices.

Navigating Responsibly

- STOP: Define Priorities, Boundaries

- LOOK: Investigate Your Options

Navigating Responsibly

- Accessing Information
- Assessing Information

Who
What
When
Why
How

Evidence based recommendations

Guidelines For Advising Patients: Based on Evidence and Efficacy

Therapies that may be recommended:	Therapies that may be accepted:	Therapies that should be Discouraged or unacceptable:
Evidence supports efficacy	Evidence regarding efficacy is inconclusive	Evidence indicates inefficacy
and	but	or
Evidence supports safety	Evidence supports safety	Evidence indicates serious risk

Weiger et al. Ann Int Med. Dec. 2002.

How Does Integrative Oncology Function?

Relationship Centered

 in addition to being

 Provider and Procedure Centered

Navigating Responsibly Who, When, Where?

- Concept of a “Match”
 - Vital to find credible providers
 - Even when credible, may not be a “Match” between provider and patient. Especially important in supportive care intent approaches.

Choosing Healers

- Credentials
- Communication
- Expectations
- Commitment



Navigating Responsibly

- **STOP:** Define Priorities, Boundaries
- **LOOK:** Investigate Your Options
- **LISTEN:** Share selections with your team and trusted individuals

Getting Started

Envisioning Integration Into Your Navigation Practice

How?

- "I naively believed that if we created the best integrative medicine center within our five hospital centers, that integrative medicine would move laterally through the system. I learned that creating an isolated system is not the way to go. It needs to be a whole cultural transformation. It needs to come from the top, and be propagated through the whole system through education on all fronts."
 - Dr. Erminia Guarneri, Founding Director of the Scripps Center for Integrative Medicine

Vision and Reality

Challenges

- Identity Issues
- Resistance
- Work Setting
- Funding
- Burnout

Solutions

- Raise Visibility
- Be Reliable Source for CAM
- Cultivate Relationships
 - Referral Sources
 - Healers
 - Other Navigators
- Live Your Work
 - Setting Intention
 - Self care

Becoming a Model for Your Patients

Integrating wellness practices into your self-care.

How?

Do you have 10 seconds? Stop. Calm. Rest. Heal.

Begin a daily health practice yourself, with cultivating awareness as the foundation.

Embrace a transformational approach with the support of a group with similar experience (Navigator with Navigator, RN with RN, etc.) led by a facilitator creating safe space.

Develop your practice as a part of a diverse community with similar goals and focus.

Define success as a group and measure it on all levels.

Sculpting A Vision of Integrative Navigation

A PRAYER FOR HEALTH

Rabbi Menachem Creditor

God, may my work feel redemptive even when an ocean of need feels like it will pull me down.
May I feel supported when I feel alone in my work.

O God, remind me when I fail that I can learn, and that my life is more than my work.

O God, remind me when I succeed that I can learn, and that deep success requires the efforts of many.

May I remember that going home is a crucial part of the dream.

God, help me to remember that I am one of the people I am called by you to serve.

May I feel undivided as I transition from sphere to sphere, a whole person within Your world.



THANKS

- Matt Mumber: mmumber@harbinclinic.com
- Carole O'Toole: carole@smithcenter.org
- Laura Pole: lpchef@earthlink.net



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