



Evidence-Based Integrative Medicine in Oncology

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Objectives

- Define the categories of Complementary, Alternative, and Integrative Medicine (CAIM)
- Definitions
- Discuss evidence based integrative medicine
- Discuss resources for patients, caregivers, and providers

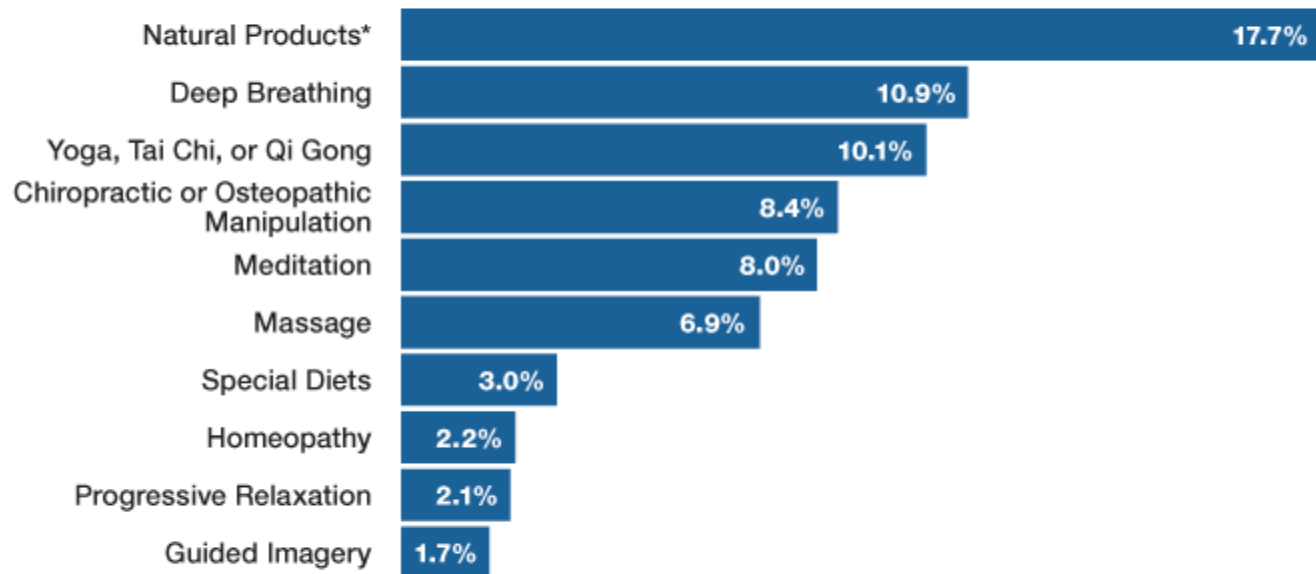
Conflict of interest

None

Categories of Complementary, Alternative, and Integrative Medicine (CAIM) - NCCIH

- **Nutritional/ Natural Products**
 - a. Special diets, dietary supplements, herbs, probiotics
- **Psychological/ Mind-body**
 - a. Meditation, prayer, mindfulness
- **Physical/ Body-based**
 - a. Massage, spinal manipulation, osteopathic
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 - c. Reiki
 - d. **Relaxation techniques** (such as breathing exercises and guided imagery)

10 most common complementary health approaches among adults—2012



*Dietary supplements other than vitamins and minerals.

Source: Clarke TC, Black LJ, Stussman BJ, Barnes PM, Nahin RL. Trends in the use of complementary health approaches among adults: United States, 2002-2012. National health statistics reports: no 79. Hyattsville, MD: National Center for Health Statistics. 2015.

CONVENTIONAL MEDICINE



Also known as Western medicine, refers to a system of medicine that treats the disease and symptoms with drugs, surgery, radiation and similar practices.

ALTERNATIVE MEDICINE



A range of medical therapies that may include homeopathy, acupuncture, herbalism and others.

COMPLEMENTARY MEDICINE



Combines alternative and conventional medical approaches, often considered a hybrid.

FUNCTIONAL MEDICINE



Scientifically-based approaches that focus on disease roots and prevention with treatment for the patient rather than the illness.

INTEGRATIVE MEDICINE



Combines conventional and alternative medicines in a coordinated way. Emphasis on data driven solutions that are safe, and patient focused.

What is Integrative Medicine?

- **Combines with conventional treatments** for cancer to help patients cope with symptoms and side effects of treatment
- A **holistic** modality that delivers **evidence based patient-centered** care
- It utilizes all **appropriate** therapeutic approaches and healthcare professionals to achieve optimal health and healing.

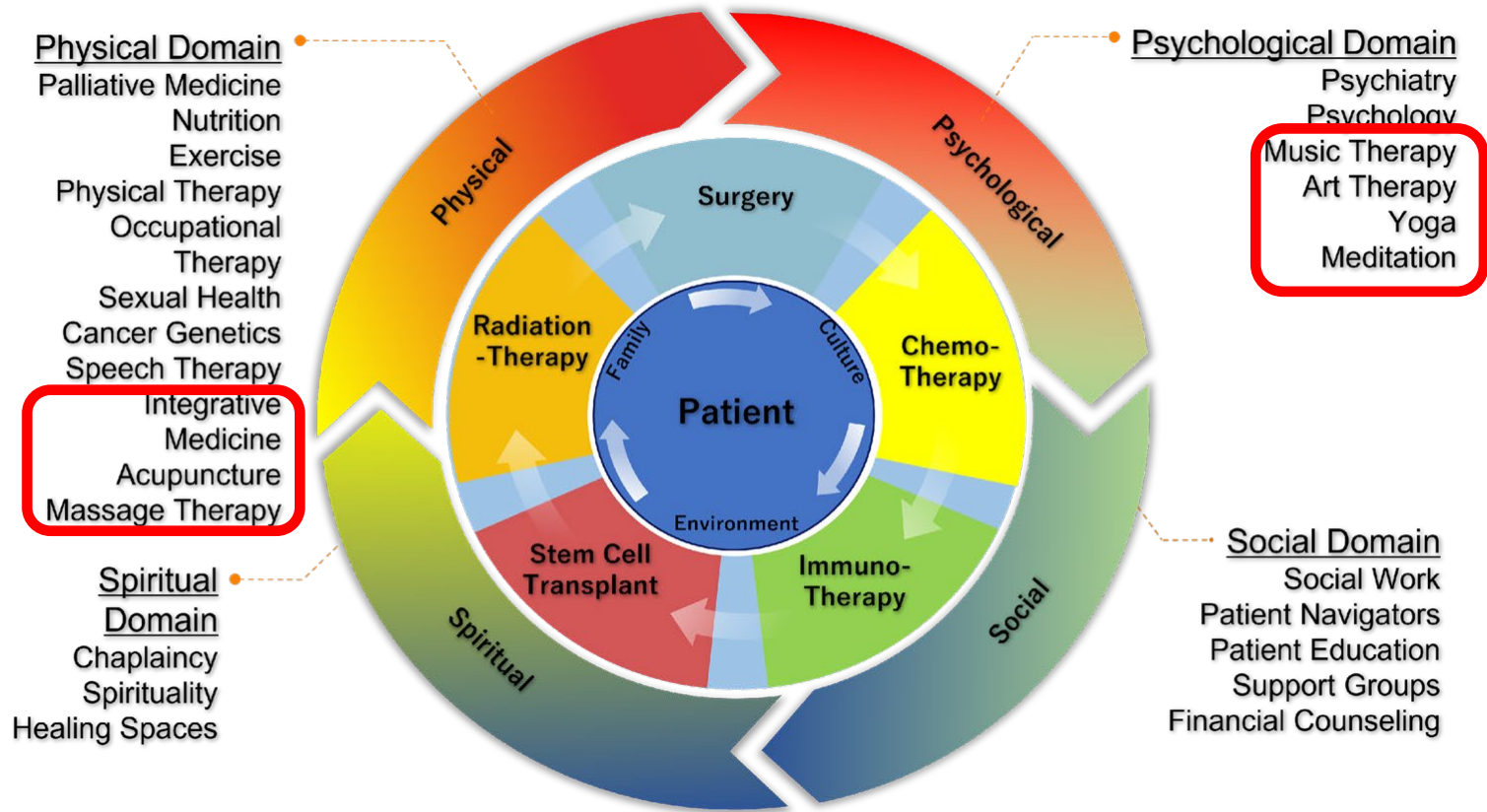
-NCCIH

What are Alternative Therapies?

- If a non-mainstream approach is used **instead of** conventional medicine, it's considered “alternative.”
- For example, instead of chemotherapy, some people promote taking a particular herb or supplement or avoiding specific foods.
- Alternative therapies are **disproved or unstudied methods** that do not treat cancer.
- They may **even be harmful.**

Whole Person Health

- Helping individuals, families, communities, and populations improve and restore their health in multiple interconnected domains—biological, behavioral, social, environmental—rather than just treating disease.
- Research on whole person health includes expanding the understanding of the connections between these various aspects of health, including connections between organs and body systems.



Why the interest in integrative medicine?

The University Hospital Mannheim in Germany collected a survey over a 4-month period in 2018

- 325 patients with biopsy-proven sarcoma (59%), gastrointestinal stromal tumors (23%), and desmoid tumors (18%)
- 51% of participants had used CAMs in their lifetime -- 15% of them strictly during treatment for their disease.

Patients' reasons for using CAM included:

- **Boost the immune system (78%)**
- **Help them feel better (76%)**
- **Cope with cancer treatment (45%)**
- **Reduce stress (53%)**
- **Manage symptoms or side effects (36%)**

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" I'm taking you off the *herbal tea*. "

American Cancer Society Guideline on Diet and Activity for Cancer Survivors (2022)

General recommendations for cancer survivors:

- Nutritional & physical assessment/counseling should begin as soon as possible after diagnosis

Recommendations to improve long-term health and increase the likelihood of survival:

- Avoid obesity and maintain or increase muscle mass through diet and physical activity.
- Regular physical activity
- Healthy eating pattern
- Follow the general advice of the American Cancer Society *Guideline for Diet and Physical Activity for Cancer Prevention* to reduce risk of a new cancer.

American Cancer Society Guideline on Nutrition and Physical Activity for Cancer Prevention Recommendations for Individuals (2022)

- Achieve and maintain a healthy body weight
- Be physically active
 - Adults: 75-150 min of vigorous-intensity physical activity
 - Children and adolescents: at least 1 h of moderate-intensity or vigorous-intensity activity each day
- High nutrient density foods, variety of vegetables, fruits, whole grains
- Limit or avoid: red and processed meats, sugar-sweetened beverages, highly processed foods and refined grain products.
- Limit alcohol

Nutritional/ Natural Products Risks

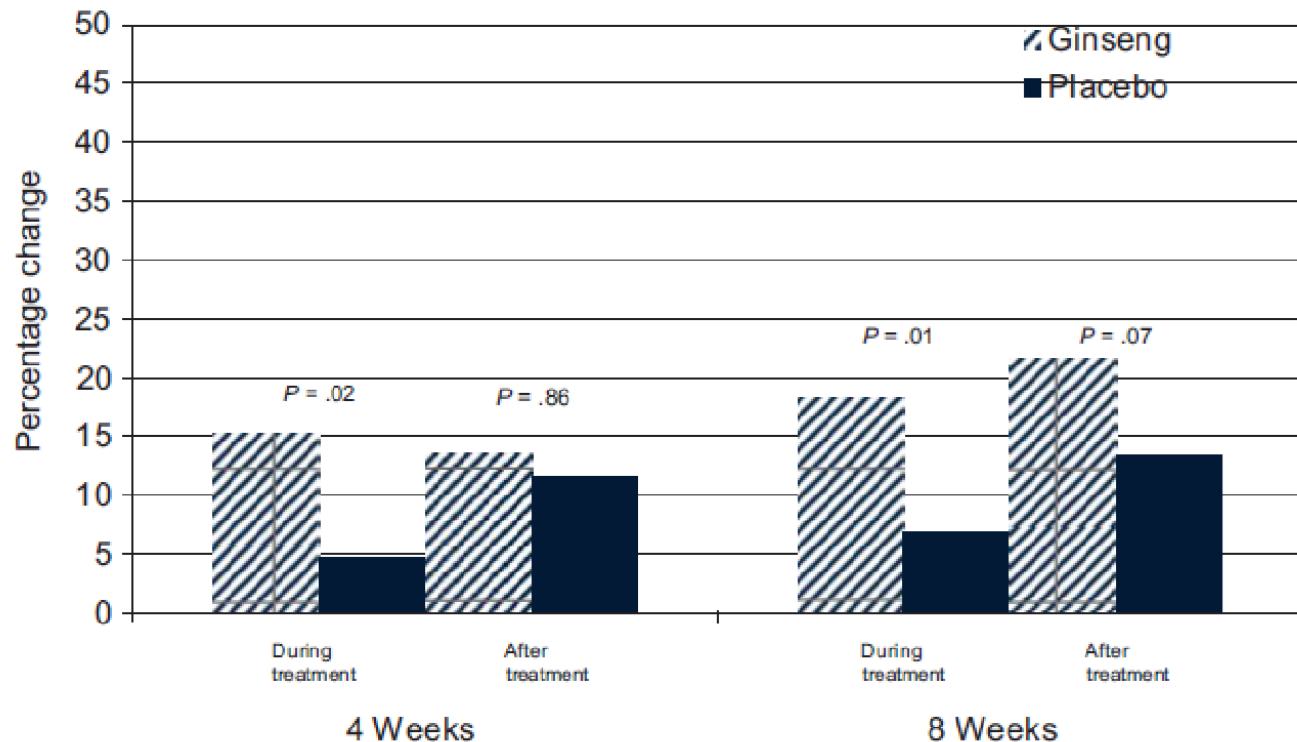
- Risks of interactions
- Increased toxicity
- Risk of contaminants/toxins in non-regulated products
- Loss of efficacy of anti-cancer treatments
- Limited research
- **Always discuss these products with your Oncologist**

Documented Interactions

- Beta carotene during radiation therapy
- St. John's Wort
 - Irinotecan, docetaxel, imatinib
- Green Tea
 - Bortezomib
- Ginger, garlic, ginseng
 - Anti-coagulation
 - Imatinib and docetaxel

Wisconsin Ginseng (*Panax quinquefolius*) to Improve Cancer-Related Fatigue: A Randomized, Double-Blind Trial, N07C2

Debra L. Barton, Heshan Liu, Shaker R. Dakhil, Breanna Linquist, Jeff A. Sloan, Craig R. Nichols, Travis W. McGinn, Philip J. Stella, Grant R. Seeger, Amit Sood, Charles L. Loprinzi



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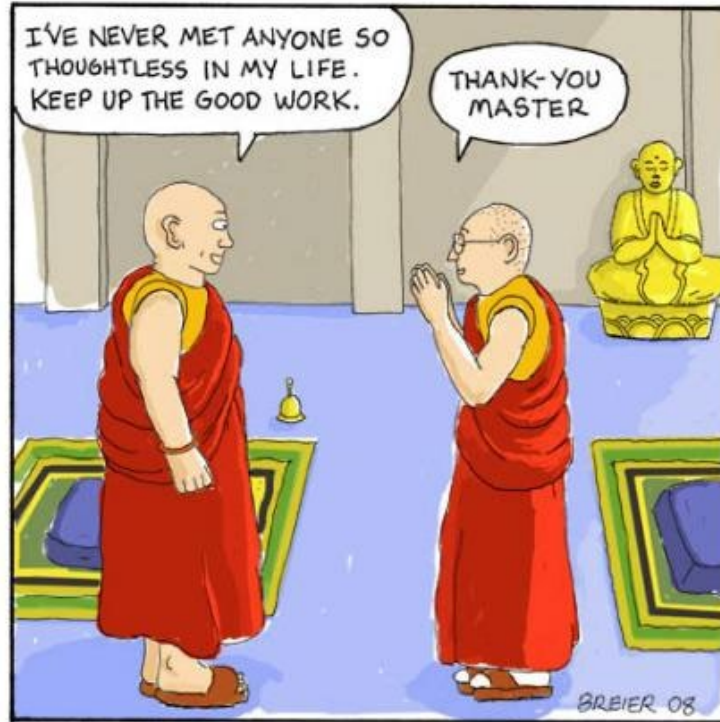
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National Center for Complementary and Integrative Health (NCCIH), a part of the National Institutes of Health (NIH) - the Federal Government's lead agency for scientific research on [complementary and integrative health approaches](#)



Buddhist Compliment

Psychological/ Mind-Body Practices

- Stress (grade A)
- Mood Disturbance (grade A)
 - Depression, anxiety
- Quality of Life (grade A)
- Insomnia (grade C)

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Oncology Massage Therapy

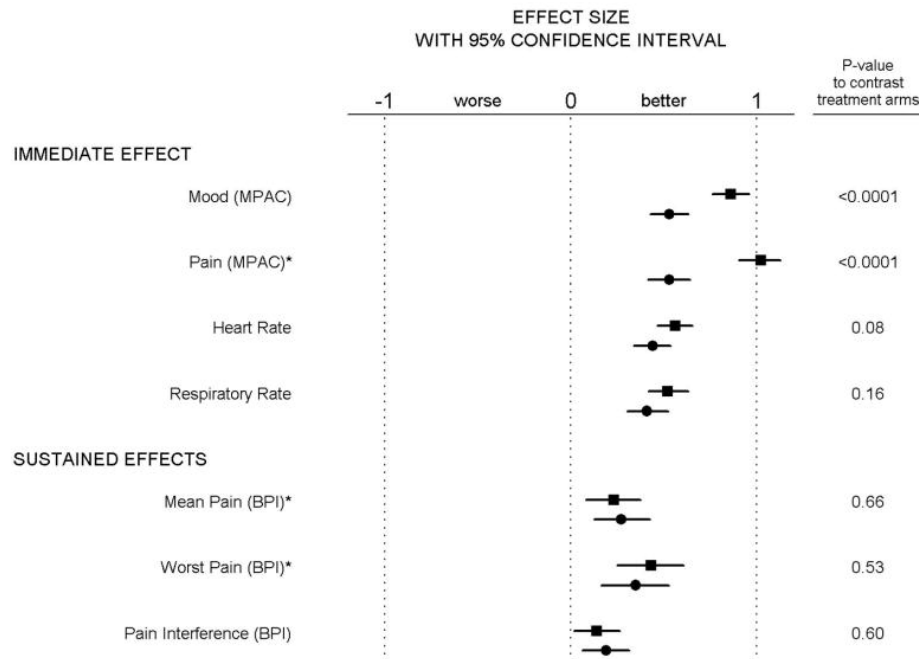
- Mood Disturbance (B)
- Depression
- Anxiety & Stress (C)
- Pain (C)
- Constipation (C)
- Neuropathy



Massage Therapy versus Simple Touch to Improve Pain and Mood in Patients with Advanced Cancer

A Randomized Trial

Jean S. Kutner, MD, MSPH; Marlaïne C. Smith, RN, PhD; Lisa Corbin, MD; Linnea Hemphill, APRN, BC, MSN; Kathryn Benton, MSPH; B. Karen Mellis, BS; Brenda Beaty, MSPH; Sue Felton, MA; Traci E. Yamashita, MS; Lucinda L. Bryant, PhD, MSHA; and Diane L. Fairclough, DrPH





MOVING THROUGH CANCER

<https://www.exerciseismedicine.org/eim-in-action/moving-through-cancer/>



Date active: 2007-present

Livestrong at the YMCA

We partner with the YMCA of the USA to promote the importance of physical activity after a cancer diagnosis.

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

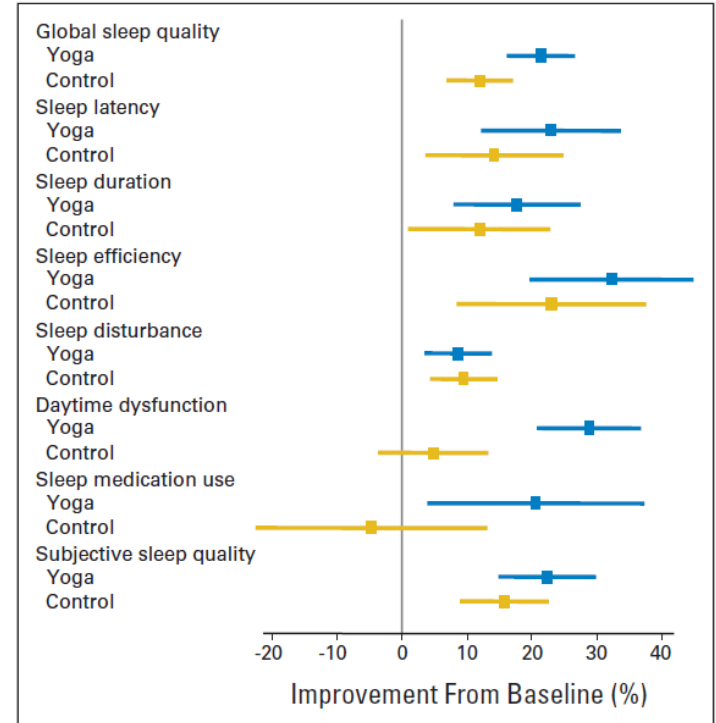
Karen M. Mustian, Lisa K. Sprod, Michelle Janelins, Luke J. Peppone, Oxana G. Palesh, Kavita Chandwani, Pavan S. Reddy, Marianne K. Melnik, Charles Heckler, and Gary R. Morrow

Yoga improved:

- Sleep quality, duration, efficiency, daytime dysfunction, reduced sleep medication use

No improvement in:

- Sleep disturbance



Tai Chi and Qi Gong

Tai chi

- A practice that involves a series of slow gentle movements and physical postures, a meditative state of mind, and controlled breathing.
- Originated as an ancient martial art in China

Qigong

- Psychological and physical components
- Regulation of the mind, breath, and body's movement and posture
- Uses exercises to optimize energy within the body, mind, and spirit, with the goal of improving and maintaining health and well-being.
- Ancient traditional Chinese medicine.

Tai Chi and Qi Gong

- A 2019 review:
 - a. 915 people with different types of cancer.
 - b. Average of 60-minute sessions 2-3 times a week for 6-12 weeks.
 - c. **Qigong significantly improved symptoms of fatigue and sleep quality.**
- A 2017 review:
 - a. 1,751 people with various cancers
 - b. **Using qigong was promising for managing physical and psychological symptoms related to cancer and its treatment**





Qigong Improves Quality of Life in Women Undergoing Radiotherapy for Breast Cancer

Results of a Randomized Controlled Trial

Improvement in fatigue,
depression and quality of life

Zhen Chen, MD1; Zhiqiang Meng, MD, PhD1; Kathrin Milbury, PhD2; Wenying Bei, RN1; Ying Zhang, RN1; Bob Thornton, MD3; Zhongxing Liao, MD4; Qi Wei, MS3; Jiayi Chen, MD5; Xiaoma Guo, MD5; Luming Liu, MD, PhD1; Jennifer McQuade, MD6; Clemens Kirschbaum, PhD7; and Lorenzo Cohen, PhD2

Effects of Center-Based Delivery of Tai Chi and Qi Gong Group Classes on Self-Reported Symptoms in Cancer Patients and Caregivers

Gabriel Lopez, MD^{1*}, Santhosshi Narayanan, MD^{1*} ,
Aimee Christie, PhD¹, Catherine Powers-James, PhD¹,
Wenli Liu, MD¹ , M Kay Garcia, DrPH, LAc¹,
Telma Gomez, MS¹, Jimin Wu, MS¹, Aditi Chunduru¹,
Janet L. Williams, MPH, CCRP¹, Yisheng Li, PhD¹,
Eduardo Bruera, MD¹, and Lorenzo Cohen, PhD¹

Reduction in physical distress.
Improvement in well-being,
fatigue

Acupuncture

Qi = Vital life force energy flows along the meridian points



Acupuncture

Efficacy shown in randomized controlled trials:

- **Chemotherapy-related nausea & vomiting (B)**
- Pain (C)
- Cancer-related fatigue (C)
- Xerostomia/dry mouth (C)
- Hot Flashes (C)
- Neuropathy (C)
- Insomnia
- Anxiety / depression



National Comprehensive Cancer Network (NCCN) Guidelines for Palliative Care

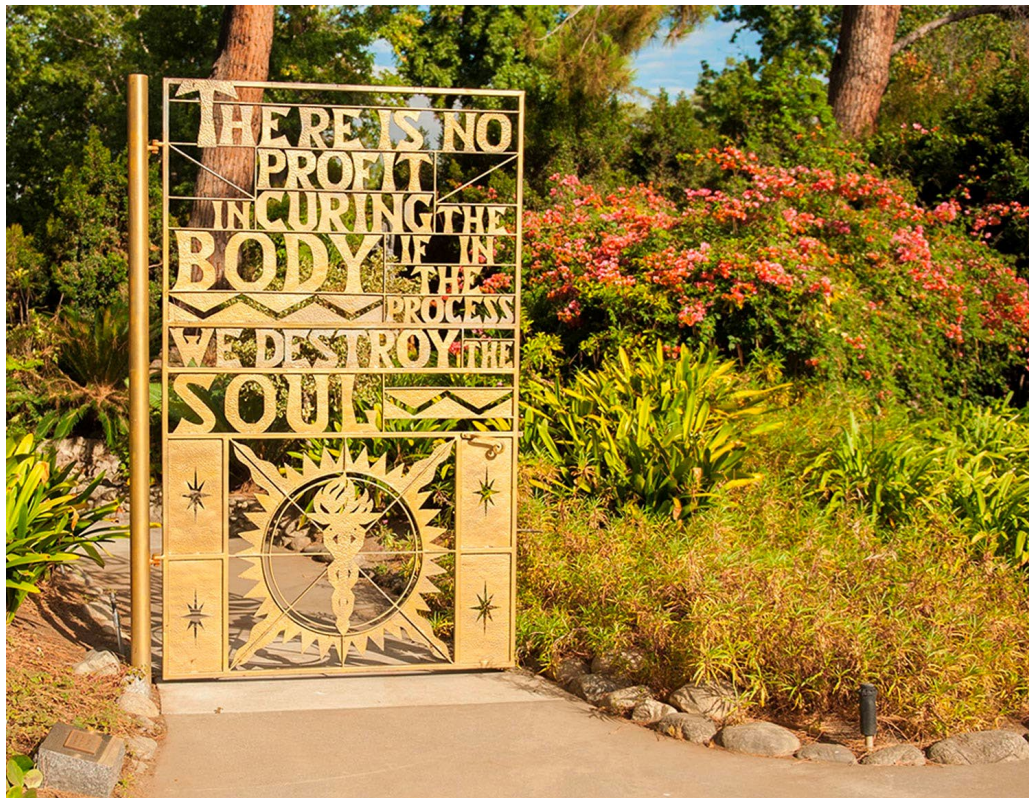
- Pain
 - Acupuncture, MBSR (mindfulness based stress reduction), relaxation therapy
- Nausea & Vomiting
 - Acupuncture and acupressure, hypnosis, and CBT (cognitive behavioral therapy)
- Dyspnea
 - Stress management and relaxation therapy

Integrative Therapies During and After Breast Cancer Treatment: ASCO Endorsement of the SIO Clinical Practice Guideline

Gary H. Lyman, Heather Greenlee, Kari Bohlke, Ting Bao, Angela M. DeMichele, Gary E. Deng, Judith M. Fouladbakhsh, Brigitte Gil, Dawn L. Hershman, Sami Mansfield, Dawn M. Mussallem, Karen M. Mustian, Erin Price, Susan Rafté, and Lorenzo Cohen

- Meditation & Yoga
 - Stress and anxiety
 - Mood disturbance and depression
- Acupuncture
 - Nausea and vomiting
- Music Therapy
 - Stress and anxiety
 - Mood disturbance and depression

Resources for Patients, Caregivers and Providers





NAVIGATING CANCER CARE

More in this section

- > Cancer Basics
- > Diagnosing Cancer
- > Managing Your Care
- > Financial Considerations

> How Cancer is Treated

- > Making Decisions About Cancer Treatment
- > Bone Marrow/Stem Cell Transplantation
- > Chemotherapy
- > Getting Treatment in a Clinical Trial
- > Hormone Therapy
- > Immunotherapy and Vaccines

Integrative Medicine

Integrative medicine is a combination of medical treatments for cancer and complementary therapies to cope with the symptoms and side effects. You may sometimes hear integrative medicine called complementary and alternative medicine or CAM. However, there are no true “alternatives” to cancer treatment.

This section provides information on the following topics:

- > **Evaluating Complementary and Alternative Therapies**
How to figure out if integrative medicine can be combined with standard cancer treatment
- > **Types of Complementary Therapies**
Therapies that may help improve quality of life
- > **Complementary Therapies and Clinical Trials**
How to find and join a clinical trial
- > **Taking Vitamins, Herbal Products, and Other Dietary Supplements During Cancer**
Types of products and recommendations for use

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What does NCCIH do?

We conduct and support research and provide information about complementary health products and practices.

Questions?



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