



Integrative Oncology

Daniel Glidden, M.S., PA-C

October 15th, 2025



Dana-Farber
Cancer Institute



The Leonard P. Zakim Center for Integrative Therapies & Healthy Living

Dan Glidden, M.S., PA-C



Outline

- Intro to Integrative Oncology
- Lifestyle and Cancer Prevention
- Intro to Exercise
- Intro to Nutrition
- Symptom Management
 - Pain
 - Fatigue
 - Anxiety & Depression
 - Insomnia
- Supplements
- Zakim Center Resources



Intro to Integrative Oncology

What is Integrative Medicine?



A holistic approach to healthcare that combines conventional Western medicine with complementary therapies



Focuses on treating the whole person, not just the symptoms of a disease



The key principles of integrative medicine:

Patient-Centered Care



Comprehensive Approach



Evidence-Based Treatment



Combining Treatments



Prevention & Healthy Living



Collaborative Care





Integrative Medicine	Alternative Medicine
Used <i>alongside</i> conventional treatments; complimentary	Promoted for use <i>instead of</i> conventional treatment
Evidence-based	Unsubstantiated claims
Non-invasive	Often biologically invasive
Relatively Inexpensive	Often very costly
Focused on side effects and pain management	Touted as curative



What is integrative oncology?

A **patient-centered, evidence-informed** field of **comprehensive** cancer care that utilizes mind-body practices, natural products, and lifestyle modifications from different traditions **alongside** conventional cancer treatments

Witt et al. *J Natl Cancer Inst Monogr* 2017

Types of Integrative Therapies



1. Mind-body therapies

2. Massage

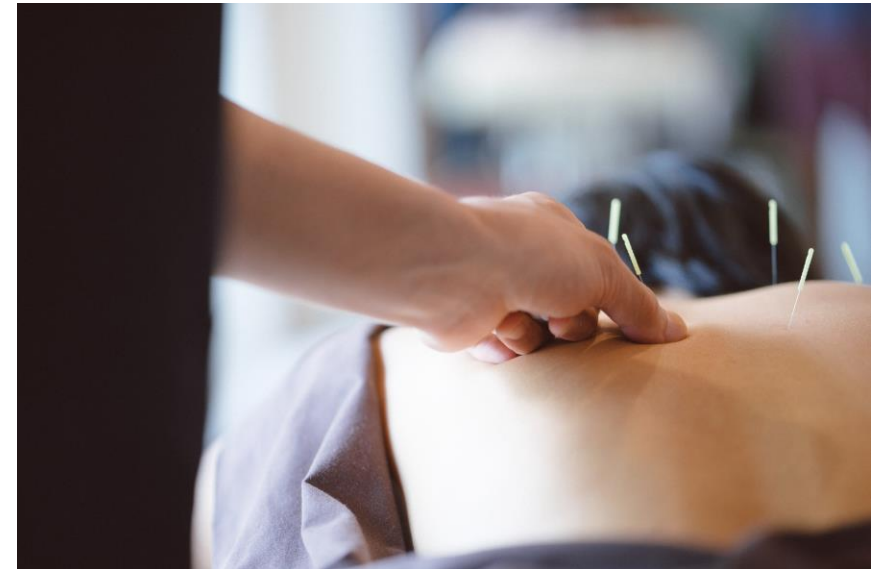


3. Acupuncture

4. Nutrition



5. Physical Activity





Mind-body Therapies

- Meditation
- Hypnosis
- Guided Imagery
- Progressive Muscle relaxation
- Yoga
- Qigong
- Mindfulness-based interventions





Lifestyle and Cancer Prevention

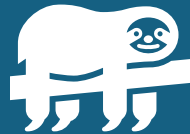
Lifestyle and Cancer Prevention

➤ ~19% of cancer cases in the US are directly attributable to lifestyle

➤ Suboptimal Diet



➤ Low physical activity

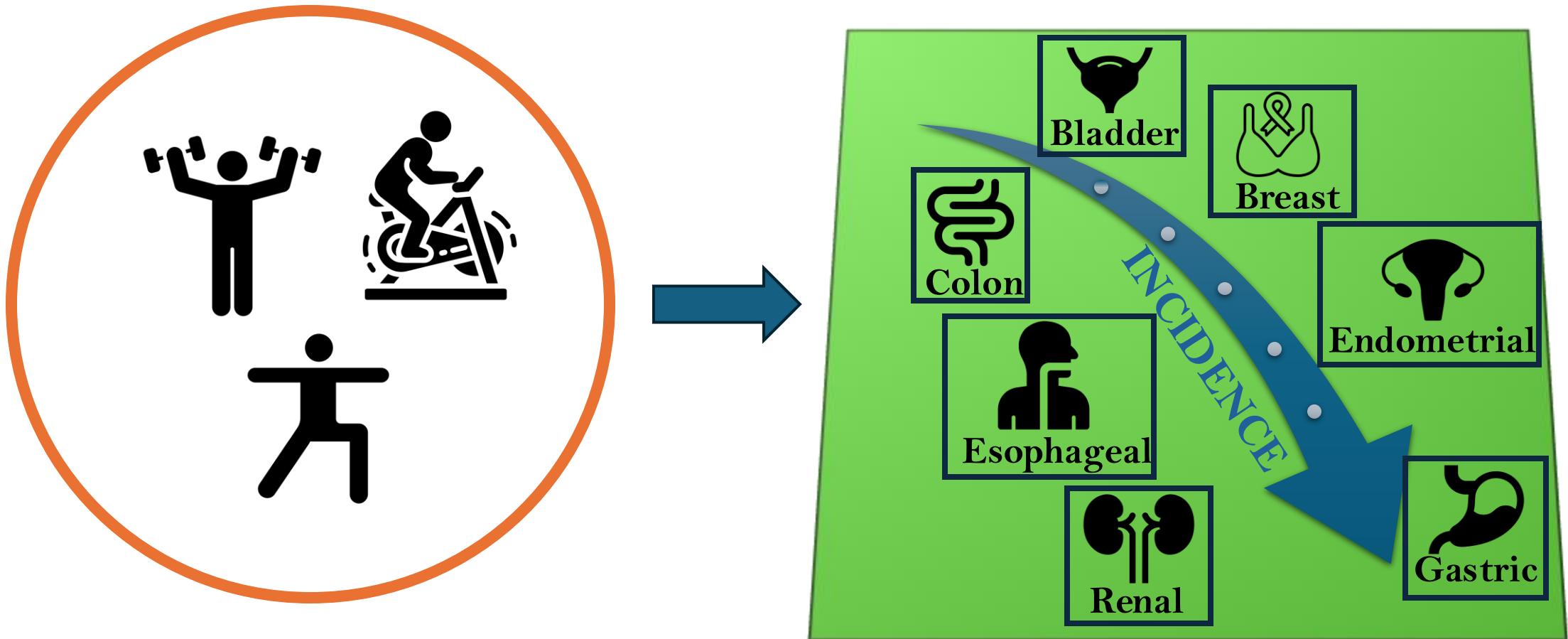


➤ Excess adiposity



Lifestyle and Cancer Prevention

- Exercise is associated with a 10% to 20% reduced incidence of many cancers:



Recommendations for Cancer Prevention

The American Cancer Society recommends the following:



Get to and stay at a healthy body weight throughout life.

Be physically active.



Exercise

ADULTS should get 150-300 minutes moderate-intensity activity/week



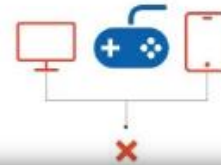
or
75-150 Minutes vigorous-intensity activity/week
or
a combination of the two through the week



CHILDREN AND TEENS should get at least 1 hour of moderate- or vigorous-intensity activity each day.

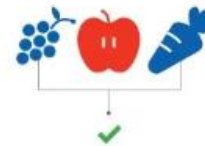
Limit sedentary behavior

- Screen-based entertainment
- Sitting around
- Lying down



Follow a healthy eating pattern.

More fruits and veggies ... less junk



- Foods high in vitamins, minerals, and other nutrients in amounts that help you get to and stay at a healthy body weight
- A colorful variety of vegetables – dark green, red, and orange
- Fiber-rich beans and peas
- A colorful variety of whole fruits
- Whole grains, like whole wheat bread and brown rice



- Red meats such as beef, pork, and lamb and processed meats such as bacon, sausage, deli meats, and hot dogs
- Sugar-sweetened beverages
- Highly processed foods and refined grain products

It is best not to drink alcohol



- If you do choose to drink alcohol, women should have no more than one drink per day and men should have no more than two drinks per day.
- A drink is 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof distilled spirits.

Recommendations for Cancer Prevention

The American Cancer Society recommends the following:



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or 75-150 Minutes vigorous
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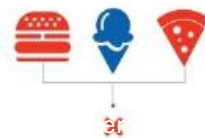
CHILDREN AND TEENAGERS should get at least 60 minutes of moderate- or vigorous-intensity physical activity daily

Limit sedentary behavior



Adults Who Closely Adhere to this Guideline Have:

- 10% to 20% lower risk of cancer diagnosis
- 24% to 30% lower risk of cancer mortality



- Whole grains, like whole wheat bread and brown rice
- Red meats such as beef, pork, and lamb and processed meats such as bacon, sausage, deli meats, and hot dogs
- Sugar-sweetened beverages
- Highly processed foods and refined grain products

It is best not to drink alcohol



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- A drink is 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof distilled spirits.



American Institute for
Cancer Research

Recommendations for Cancer Prevention



Be a Healthy Weight



Be Physically Active



Eat a diet rich in whole grains,
vegetables, fruit, beans



Limit fast foods & processed
foods



Limit red & processed meat



Limit sugar-sweetened drinks



Limit alcohol



Do not rely on supplements



Breastfeed if possible



After cancer diagnosis, follow
recommendations if feasible

Lifestyle and Cancer Prevention

- Exercise prescription for primary and secondary prevention of cancer



- 150 to 300 min/week of moderate-intensity aerobic exercise



- Twice-weekly progressive resistance exercise

- **53% of Americans meet the aerobic exercise guidelines**
- **23% meet both aerobic and strength training guidelines combined**



Intro to Nutrition



Mediterranean Diet May Cut Cancer Risk

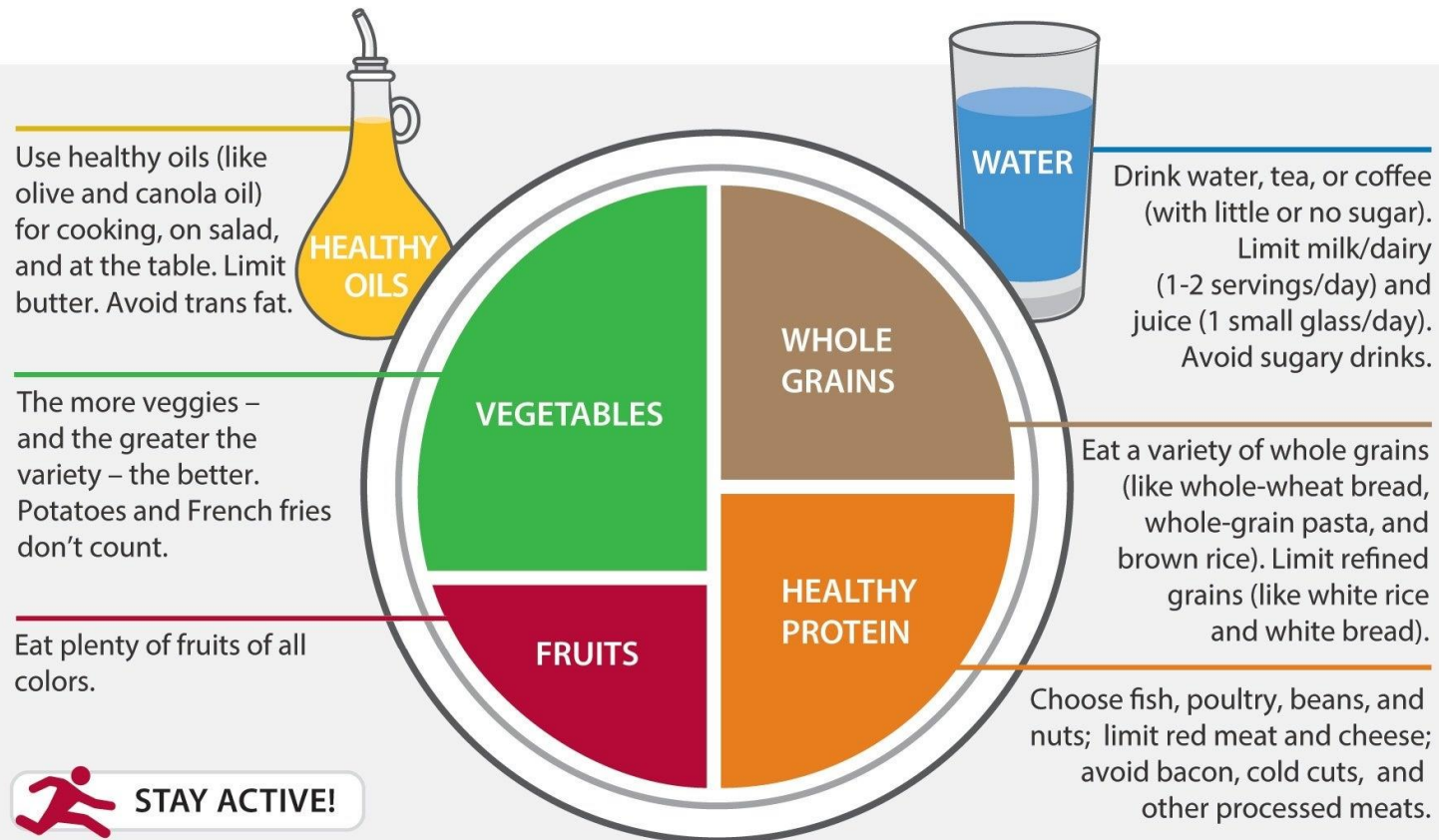
What is the Mediterranean Diet?

- A variety of fruits, vegetables, legumes, poultry, fish, nuts, seeds, olive oil
- Low consumption of meat and dairy products

Various meta-analyses and RCT (PREDIMED trial) indicate associations between greater adherence to the Mediterranean diet and significant reductions in:

- Weight gain:
- Risk factors for diabetes and cardiovascular diseases
- Overall mortality
- **cancer incidence and mortality**
- Incidence of Alzheimer's and Parkinson's disease

HEALTHY EATING PLATE



STAY ACTIVE!

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Harvard T.H. Chan School of Public Health
The Nutrition Source
www.hsph.harvard.edu/nutritionsource

Harvard Medical School
Harvard Health Publications
www.health.harvard.edu





When in Doubt: Follow Cancer Preventions Guidelines



Be a Healthy Weight



Eat a diet rich in whole grains,
vegetables, fruit, beans



Limit fast foods & processed
foods



Limit red & processed meat



Limit sugar-sweetened drinks



Limit alcohol



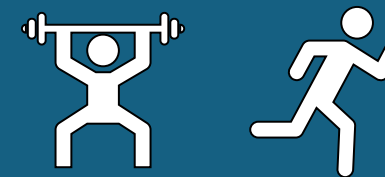
Do not rely on supplements



Intro to Exercise



During Treatment Benefits (Exercise)



Fatigue

QoL

Physical
Function

Anxiety

Depression

Lymphedema

General Exercise Guidelines:



➤ 150 to 300 min/week of moderate-intensity aerobic exercise



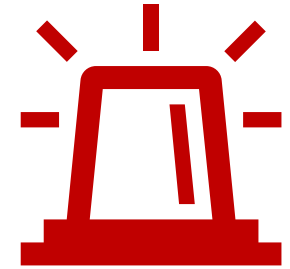
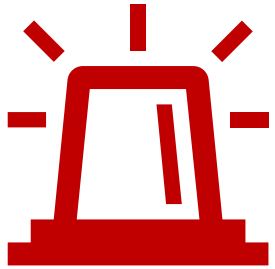
➤ Twice-weekly progressive resistance exercise

Coletta et al. Exercise Across the Cancer Care Continuum: Why It Matters, How to Implement It, and Motivating Patients to Move. Am Soc Clin Oncol Educ Book 42, 932-938(2022).

Exercise Prescriptions for Relevant Health Outcomes:

Outcome	Aerobic Only	Resistance Only	Combination (Aerobic + Resistance)
Strong Evidence	Dose	Dose	Dose
 Cancer-related fatigue	3x/week for 30 min per session of moderate intensity	2x/week of 2 sets of 12-15 reps for major muscle groups at moderate intensity	3x/week for 30 min per session of moderate aerobic exercise, plus 2x/week of resistance training 2 sets of 12-15 reps for major muscle groups at moderate intensity
 Health-related quality of life	2-3x/week for 30-60 min per session of moderate to vigorous	2x/week of 2 sets of 8-15 reps for major muscle groups at a moderate to vigorous intensity	2-3x/week for 20-30 min per session of moderate aerobic exercise plus 2x/week of resistance training 2 sets of 8-15 reps for major muscle groups at moderate to vigorous intensity
 Physical Function	3x/week for 30-60 min per session of moderate to vigorous	2-3x/week of 2 sets of 8-12 reps for major muscle groups at moderate to vigorous intensity	3x/week for 20-40 min per session of moderate to vigorous aerobic exercise, plus 2-3x/week of resistance training 2 sets of 8-12 reps for major muscle group at moderate to vigorous intensity
 Anxiety	3x/week for 30-60 min per session of moderate to vigorous	Insufficient evidence	2-3x/week for 20-40 min of moderate to vigorous aerobic exercise plus 2x/week of resistance training of 2 sets, 8-12 reps for major muscle groups at moderate to vigorous intensity
 Depression	3x/week for 30-60 min per session of moderate to vigorous	Insufficient evidence	2-3x/week for 20-40 min of moderate to vigorous aerobic exercise plus 2x/week of resistance training of 2 sets, 8-12 reps for major muscle groups at moderate to vigorous intensity
 Lymphedema	Insufficient evidence	2-3x/week of progressive, supervised, program for major muscle groups does not exacerbate lymphedema	Insufficient evidence

LANDMARK EVIDENCE ALERT!





Canadian Cancer
Trials Group



Groupe canadien
des essais sur le cancer

A Phase III Study of the Impact of a Physical Activity Program on Disease-Free Survival in Patients with High-Risk Stage II or Stage III Colon Cancer:

The CHALLENGE Trial (CO.21)

Christopher M. Booth, Janette L. Vardy, Christopher J. O'Callaghan,
Sharlene Gill, Christine M. Friedenreich, Rebecca K.S. Wong,
Haryana M. Dhillon, Victoria Coyle, Neil Sun Chua, Derek J. Jonker,
Philip J. Beale, Kamal Haider, Patricia A. Tang, Tony Bonaventura, Ralph Wong,
Howard J. Lim, Matthew E. Burge, Patti O'Brien, Dongsheng Tu, Kerry S. Courneya



CHALLENGE Trial

- 3-year structured exercise program after adjuvant chemotherapy for colon cancer
- Significantly improved disease-free survival (6.4%) and overall survival (7.1%) compared to health education alone
- The **FIRST** RCT to demonstrate direct improved DFS and OS with exercise



Symptom Management



Symptom Management:

Pain



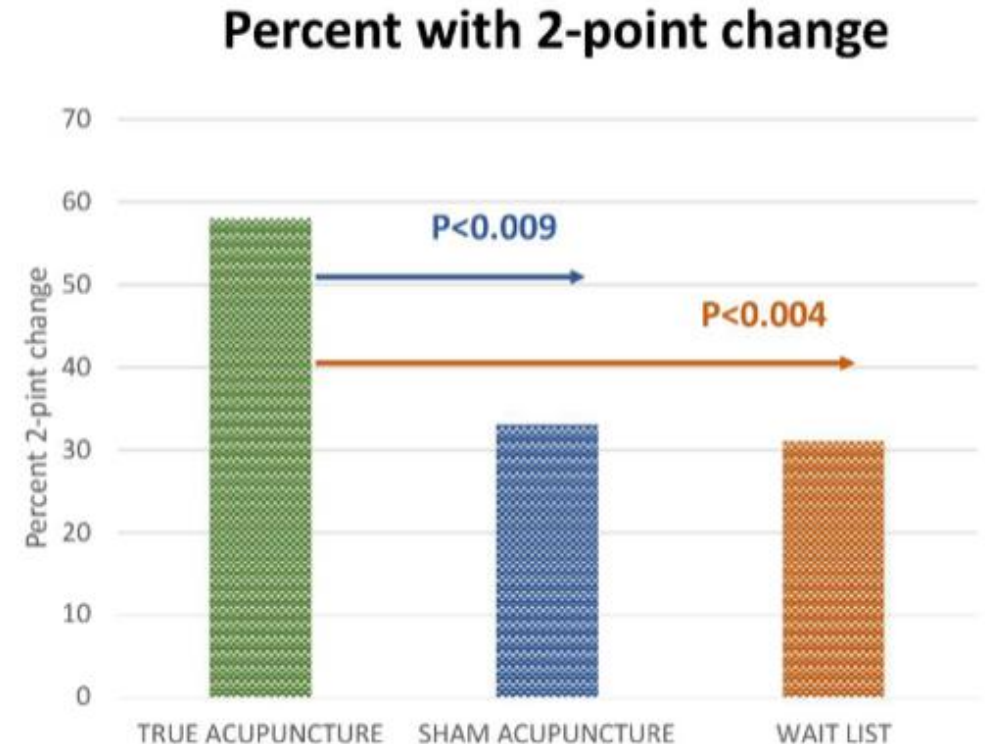
ASCO-SIO Pain Guidelines

Population	Symptom setting	Integrative therapy
Patients with cancer experiencing pain	Aromatase inhibitor–related joint pain	Acupuncture Yoga
	General cancer pain or musculoskeletal pain	Acupuncture Reflexology Massage Yoga Guided imagery with progressive muscle relaxation
	CIPN	Acupuncture Reflexology
	Procedural pain	Hypnosis
	Surgical pain	Acupuncture Music
	Pain during palliative care	Massage
	Pain during radiation therapy or oral mucositis	Insufficient/inconclusive evidence for any integrative therapy
	Pediatric cancer	Insufficient/inconclusive evidence for any integrative therapy
Notes: Intermediate quality of evidence; moderate strength of recommendation Low quality of evidence; moderate strength of recommendation Low quality of evidence; weak strength of recommendation		

Biweekly Acupuncture for 6 Weeks Significantly Reduced AIMSS vs Placebo + Usual Care

WORST PAIN	Fitted Difference*	P-value
True v. Sham	0.92 (0.20-1.65)	.01
True v. Waitlist	0.96 (0.24-1.67)	.01
Sham v. Waitlist	0.05 (-0.81-0.90)	.92

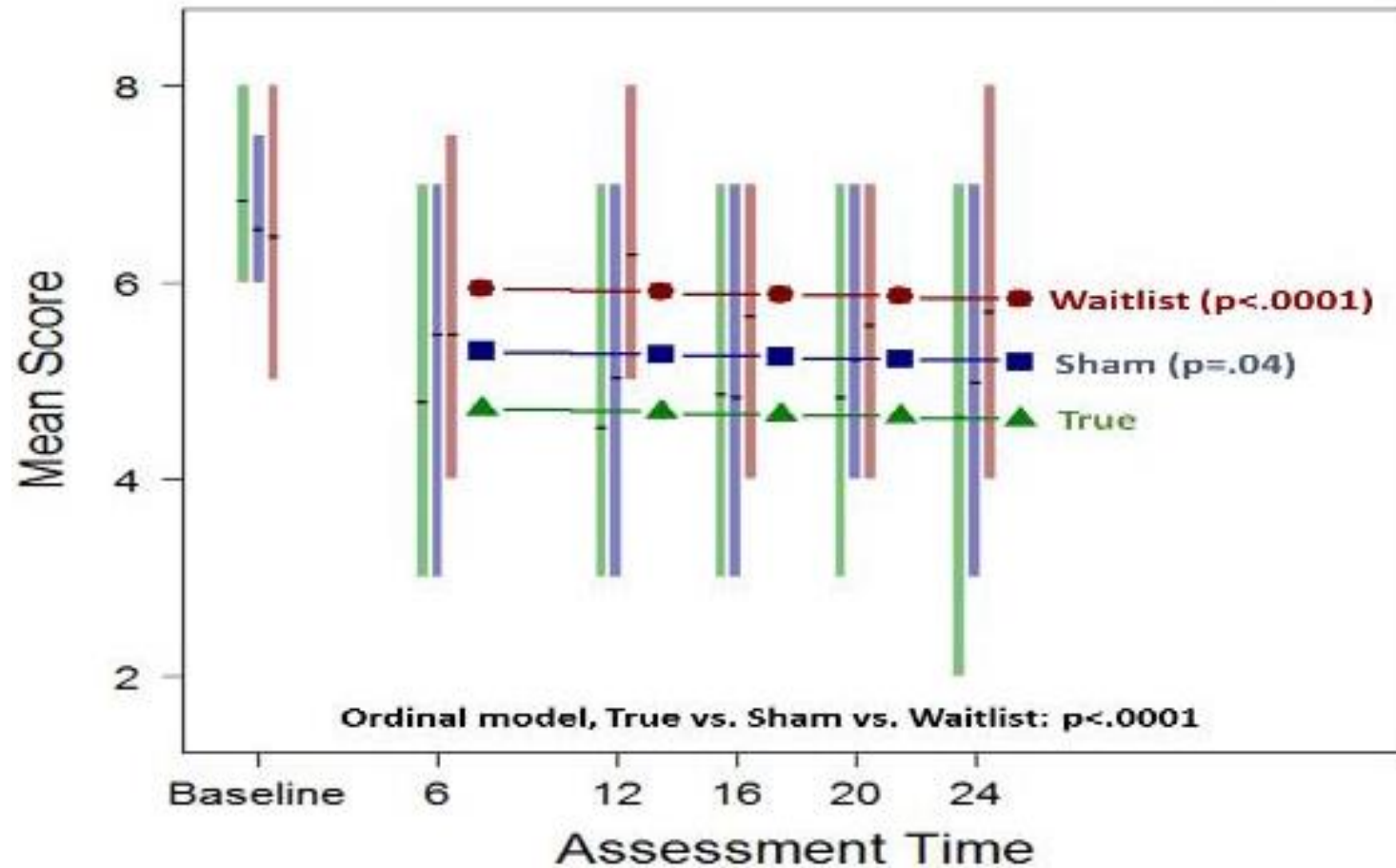
* Corrected for baseline score and study site



Intervention: 12 Acupuncture sessions over 6 weeks,
followed by once weekly sessions for 6 additional weeks

Effects Lasted Through Week 24 Follow-Up

Linear Mixed Model Worst Pain (BPI)



Yoga Therapy for AIMSS

- Pilot study: A yoga program twice weekly for 8 weeks significantly improved balance and flexibility, and reduced pain for patients with AIMSS without significant side effects ¹
- Multisite RCT secondary analysis: Yoga improves AIMSS by reducing pain and physical discomfort ²

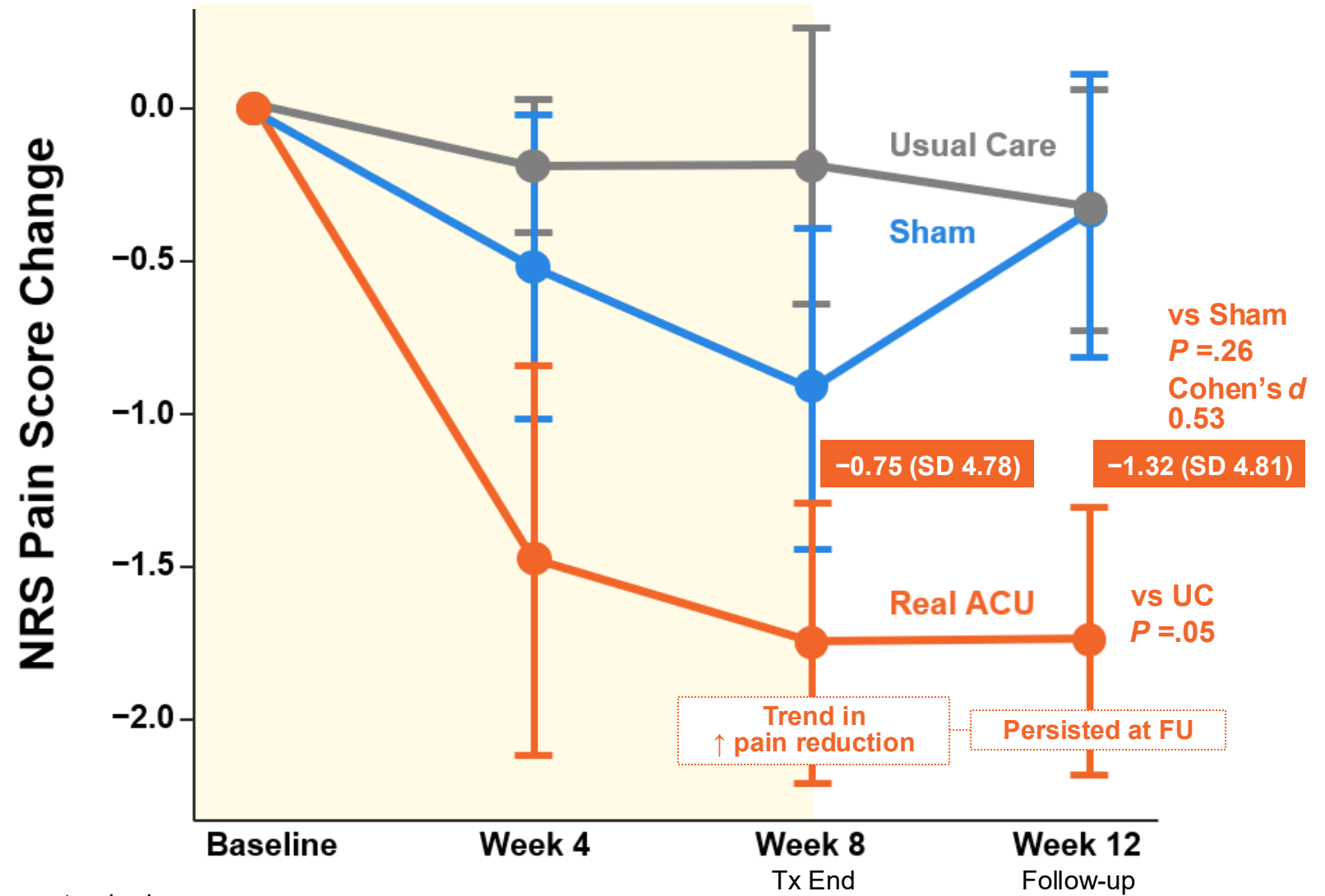
It is reasonable to recommend exercise and yoga to patients experiencing AIMSS

1. Galantino ML, et al. *Integr Cancer Ther* 2012;11: 313–20

2. Peppone LJ, et al. *Breast Cancer Res Treat* 2015;150:597–604

CIPN Pain

Mean absolute
reduction
measured
by NRS



Bars are standard error.

UC: n=21 | Sham: n=23 | Real ACU: n=24

Bao T et al. JAMA Network 2020

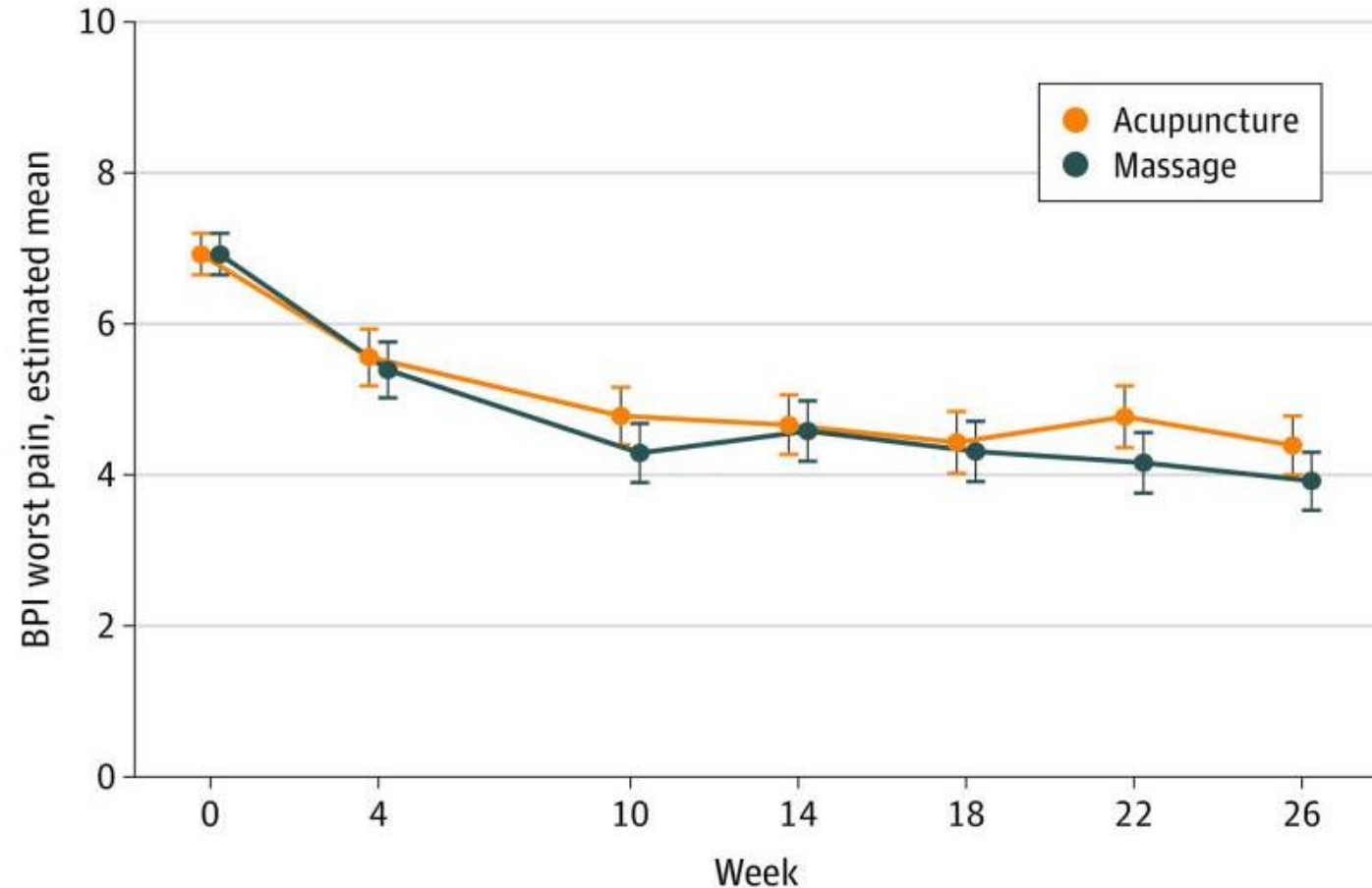
Acupuncture vs Massage for Pain in Patients Living With Advanced Cancer

The IMPACT Randomized Clinical Trial

[Andrew S Epstein](#)^{1,✉}, [Kevin T Liou](#)¹, [Sally A D Romero](#)², [Raymond E Baser](#)³, [Greta Wong](#)¹, [Han Xiao](#)¹, [Zunli Mo](#)⁴,
[Desiree Walker](#)¹, [Jodi MacLeod](#)¹, [Qing Li](#)¹, [Margaret Barton-Burke](#)⁵, [Gary E Deng](#)¹, [Katherine S Panageas](#)³, [John
T Farrar](#)⁶, [Jun J Mao](#)^{1,✉}

► [Author information](#) ► [Article notes](#)

PMCID: PMC10646731 PMID: [37962891](#)



Both Treatments Associated With:

- Pain reduction
- Improved:
 - Fatigue
 - Insomnia
- Quality of life

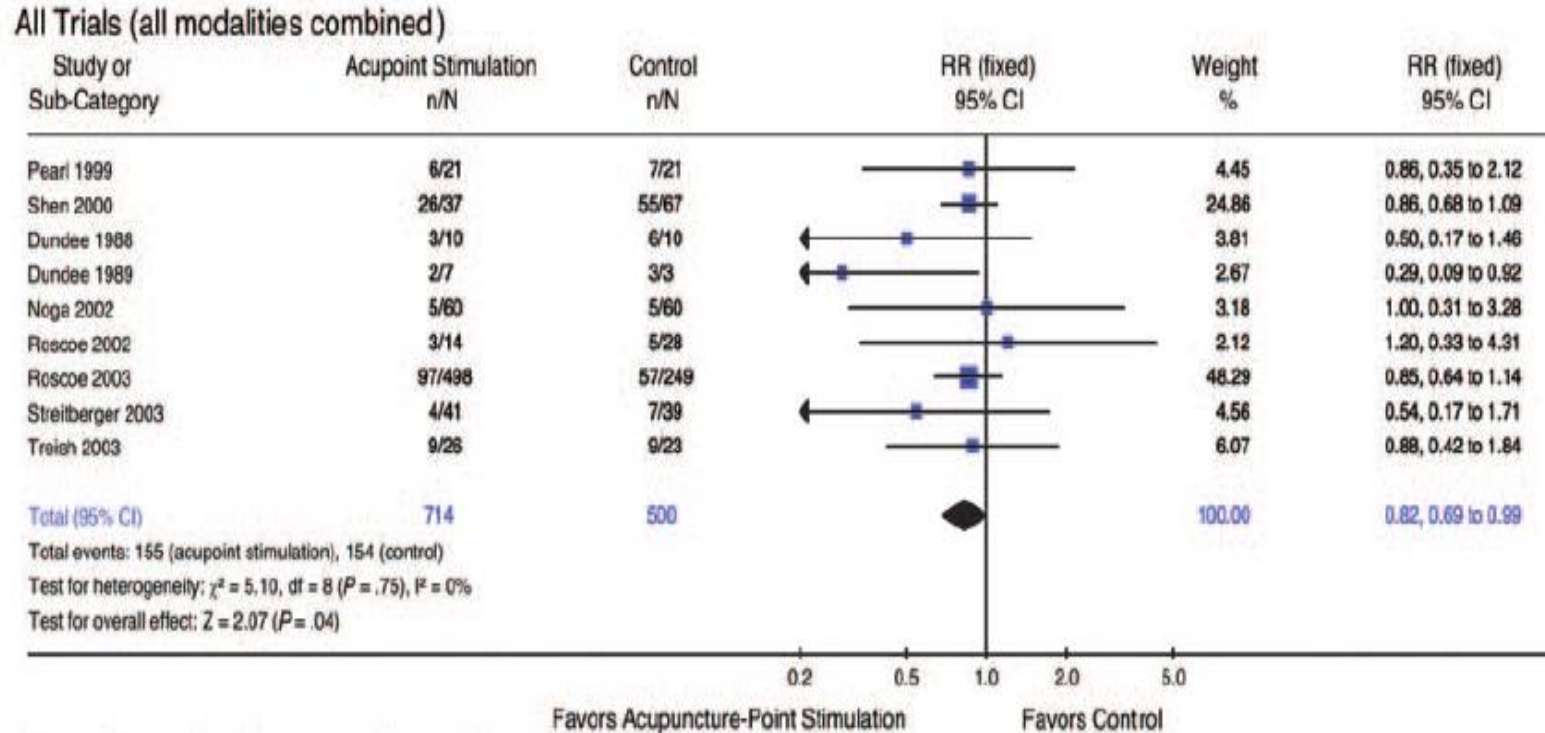


Symptom Management:

Nausea and Vomiting

Acupuncture for Chemotherapy-Induced Nausea/Vomiting

2005 Meta-analysis¹



2013 Systematic review²

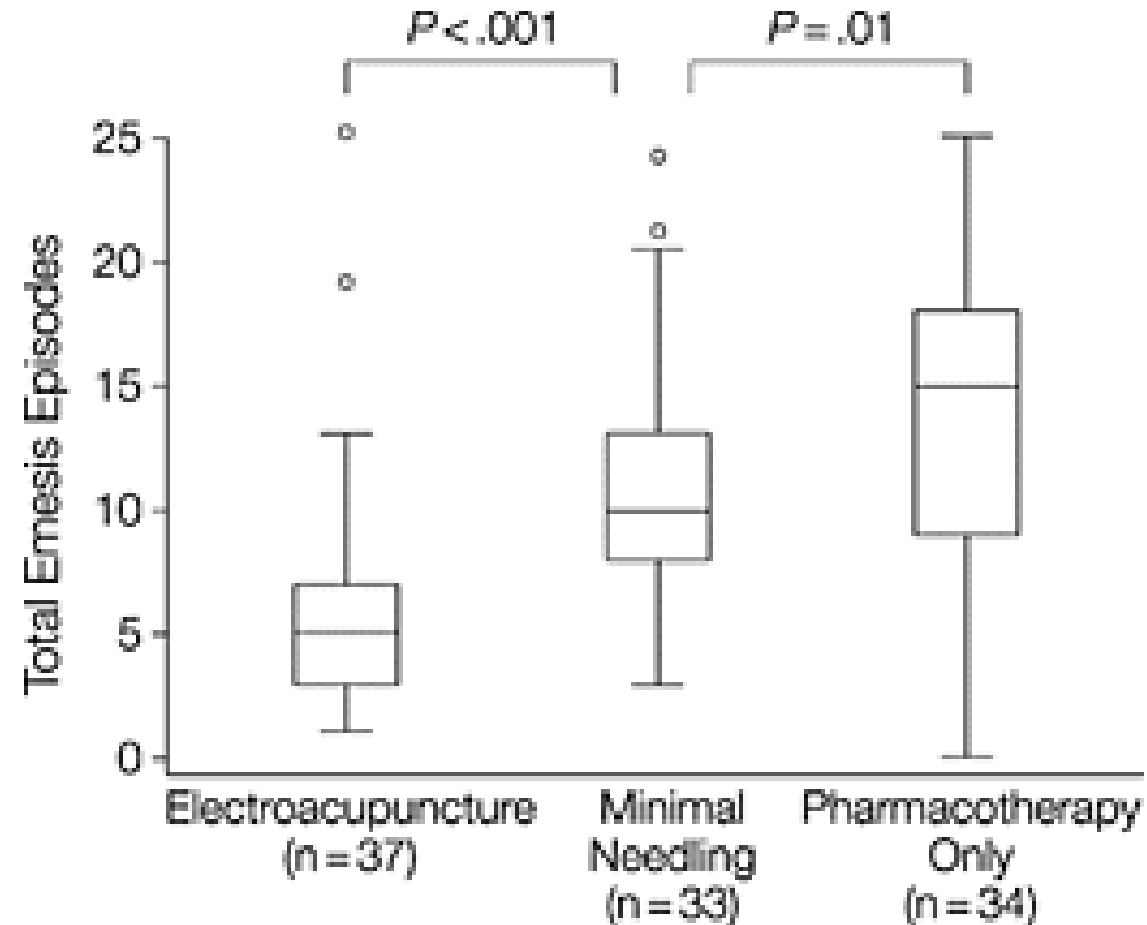
- 11 RCTs / 1 low ROB: 3-arm, parallel group RCT³
 - N = 104: 37 EA / 33 SA / 34 antiemetics. EA > SA > Usual care alone

1. Ezzo et al. *J Clin Oncol* 23:7188-98, 2005

2. Garcia et al. *J Clin Oncol* 31:952-60, 2013

3. Shen et al. *JAMA* 284:2755-61, 2000

Distribution of Total Emesis Episodes Per Person



Shen et al. *JAMA* 284:2755-61, 2000



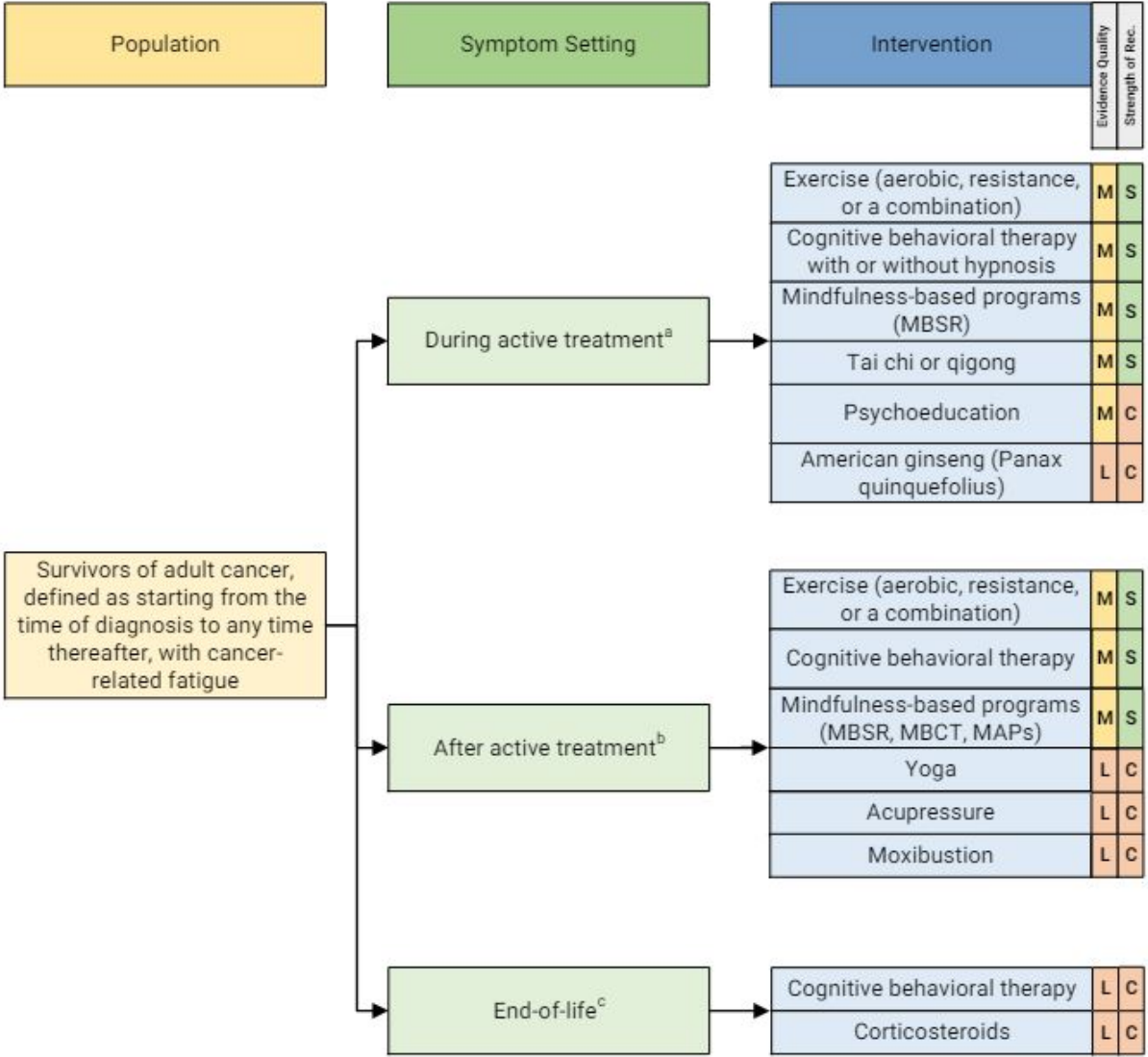
Symptom Management:

Fatigue



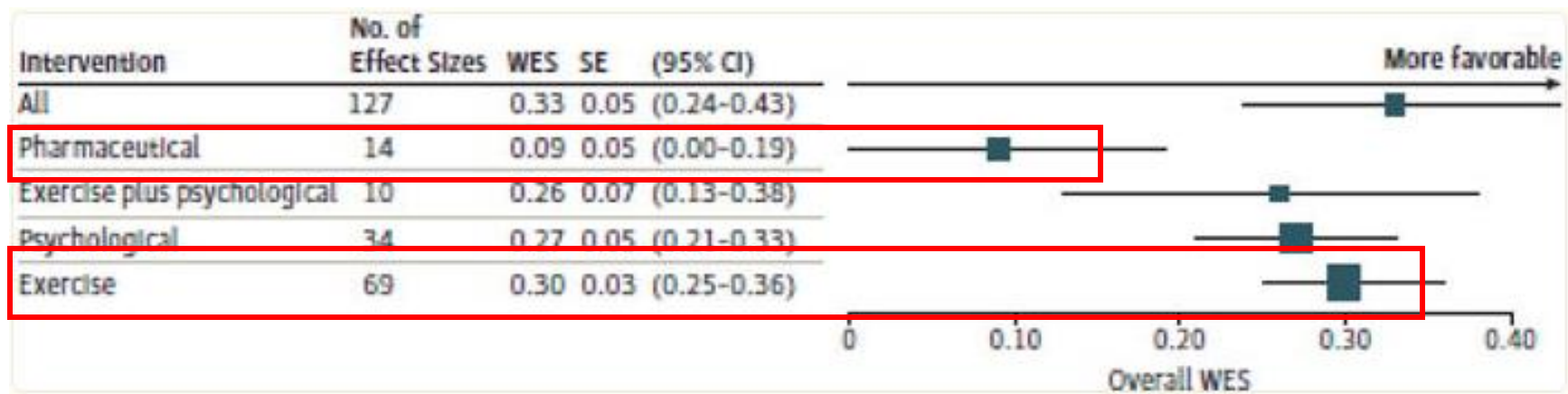
ASCO-SIO Fatigue Guidelines

Management Algorithm for Cancer-Related Fatigue



Comparison of Pharmaceutical, Psychological, and Exercise Treatments for Cancer-Related Fatigue: A Meta-analysis

Karen M Mustian¹, Catherine M Alfano², Charles Heckler¹, Amber S Kleckner¹, Ian R Kleckner¹, Corinne R Leach², David Mohr³, Oxana G Palesh⁴, Luke J Peppone¹, Barbara F Piper⁵, John Scarpato⁶, Tenbroeck Smith², Lisa K Sprod⁷, Suzanne M Miller⁶





Symptom Management:

Anxiety & Depression

MBIs should be offered to people with cancer both during active treatment and post-treatment for anxiety and depression



ASCO® Guidelines

INTEGRATIVE ONCOLOGY CARE OF
SYMPTOMS OF ANXIETY AND DEPRESSION
IN ADULT PATIENTS WITH CANCER

**Based on
several meta-
analyses and
systematic
reviews that
included up
to 29
individual
RCTs**

GUIDELINE AT-A-GLANCE RECOMMENDED INTERVENTIONS

Anxiety

During Active Treatment

- Mindfulness-based interventions
- Yoga
- Hypnosis
- Relaxation therapy
- Music therapy or music-based interventions
- Reflexology
- Lavender essential oil inhalation

Post-Treatment

- Mindfulness-based interventions
- Yoga
- Acupuncture
- Tai chi and/or qigong
- Reflexology

Depression

During Active Treatment

- Mindfulness-based interventions
- Yoga
- Relaxation therapy
- Music therapy or music-based interventions
- Reflexology

Post-Treatment

- Mindfulness-based interventions
- Yoga
- Tai chi and/or qigong

Carlson et al *J Clin Oncol* 2023
[ascopubs.org/survivorship-guidelines](https://ascopubs.org/journal/ascosurvivorship-guidelines)

Note. Evidence quality and strength of recommendations are available in the guideline publication.

Mindfulness-Based Interventions (MBI)

- Therapeutic approaches that incorporate mindfulness practices (incl. meditation & yoga):



- Goal: To promote mental health and well-being

- Typically group format with weekly meetings (in person or virtual) over 6-9 weeks



- Participants learn skills of mindfulness through the daily home practice of

Various forms of Meditation



Breathing Exercises



Gentle Movement

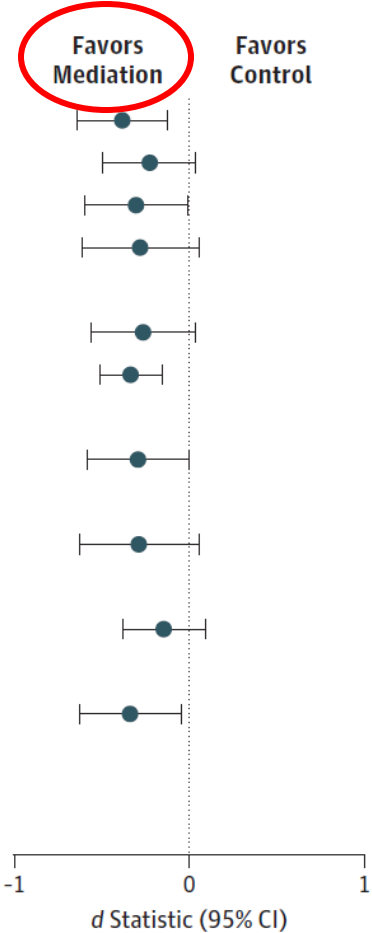


Meditation Reduces Anxiety

Systematic Review/Meta-Analysis 47 trials • 3515 participants

A Comparisons of Meditation Programs With Nonspecific Active Controls (Efficacy)

Outcome	Meditation Program	Clinical Population	No. of Trials, Total (PO); PA (MA)	Direction (Magnitude) of Effect	Strength of Evidence
Anxiety	Mindfulness	Various (n = 647)	8 (3); 7 (7)	↑(0% to +44%)	Moderate for improvement
	Mantra	Various (n = 237)	3 (2); 3 (3)	∅ (-3% to +6%)	Low for no effect
Depression	Mindfulness	Various (n = 806)	10 (4); 9 (8)	↑(-5% to +52%)	Moderate for improvement
	Mantra	Various (n = 440)	5 (1); 5 (3)	↑↓(-19% to +46%)	Insufficient
Stress/Distress	Mindfulness	Various (n = 735) ^a	9 (4); 8 (7)	↑(+1% to +21%)	Low for improvement
	Mantra	Select (n = 239)	4 (2); 4 (2)	∅ (-6% to +1%)	Low for no effect
Negative Affect	Mindfulness	Various (n = 1140) ^b	14 (5); 12 (11)	↑(-1% to +44%)	Low for improvement
	Mantra	Various (n = 438) ^c	5 (2); 5 (0)	↑↓(-3% to +46%)	Insufficient
Positive Affect	Mindfulness	Various (n = 293)	4 (0); 4 (4)	↑(+1% to +55%)	Insufficient
	TM (mantra)	CHF (n = 23)	1 (0); 1 (0)	∅ (+2%)	Insufficient
Quality of Life	Mindfulness	Various (n = 346)	4 (2); 4 (3)	↑(+5% to +28%)	Low for improvement
Attention	Mindfulness	Caregivers (n = 21)	1 (0); 1 (0)	↑(+15% to +81%)	Insufficient
Sleep	Mindfulness	Various (n = 578)	6 (2); 4 (4)	↑↓(-3% to +24%)	Insufficient
Substance Use	TM	CAD (n = 201)	1 (0); 0 (0)	∅	Insufficient
Pain	Mindfulness	Select (n = 341)	4 (2); 4 (4)	↑(+5% to +31%)	Moderate for improvement
	TM (mantra)	CHF (n = 23)	1 (0); 1 (0)	∅ (-2%)	Low for no effect
Weight	TM (mantra)	Select (n = 297)	3 (0); 2 (0)	∅ (-1% to +2%)	Low for no effect



Goyal M, et al. Meditation programs for psychological stress and well-being: a systematic review and meta-analysis. *JAMA Intern Med.* 2014;174:357-368.

MBIs should be offered to people with cancer both during active treatment and post-treatment for anxiety and depression



ASCO® Guidelines

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SYMPTOMS OF ANXIETY AND DEPRESSION
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Depression

During Active Treatment

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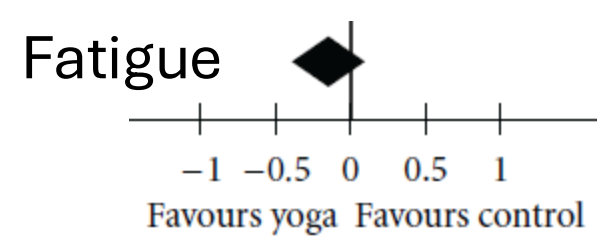
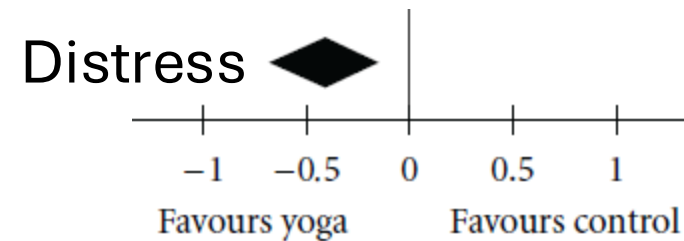
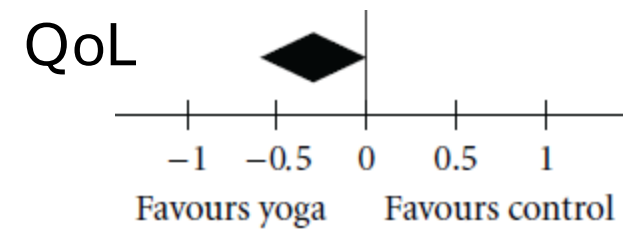
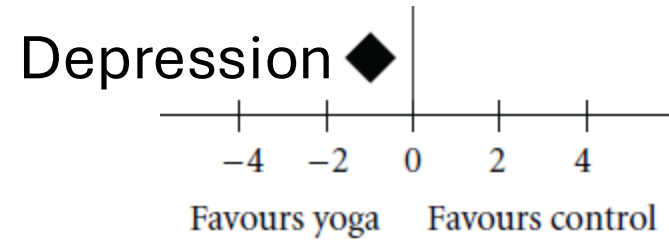
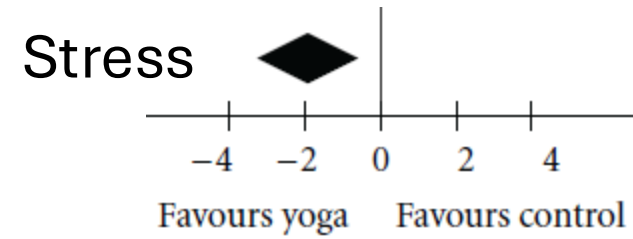
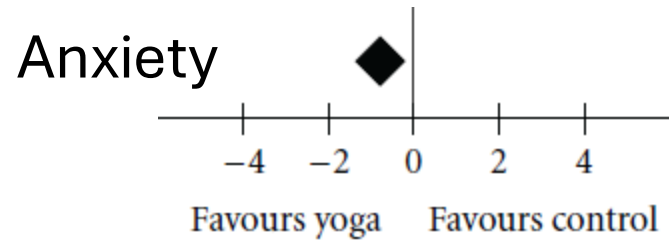
Post-Treatment

- Mindfulness-based interventions
- **Yoga**
- Tai chi and/or qigong

Carlson et al *J Clin Oncol* 2023
[ascopubs.org/survivorship-guidelines](https://ascopubs.org/journal/ascop/survivorship-guidelines)

Note. Evidence quality and strength of recommendations are available in the guideline publication.

Yoga Reduces Symptoms and Improves QoL



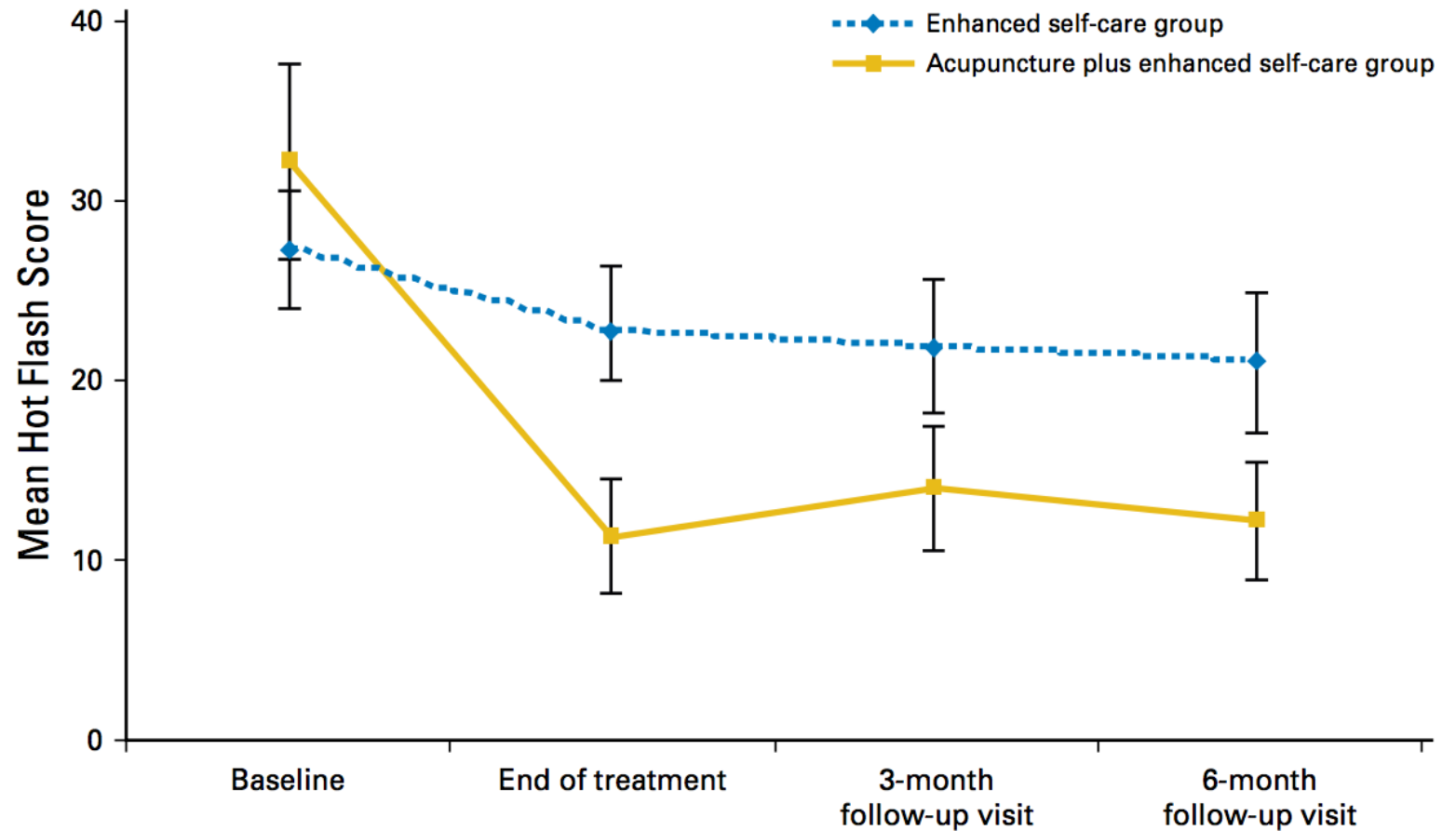
Lin KY, et al. Effects of yoga on psychological health, quality of life, and physical health of patients with cancer: a meta-analysis. *Evid Based Complement Alternat Med*. 2011;2011:659876.



Symptom Management: Vasomotor Symptoms

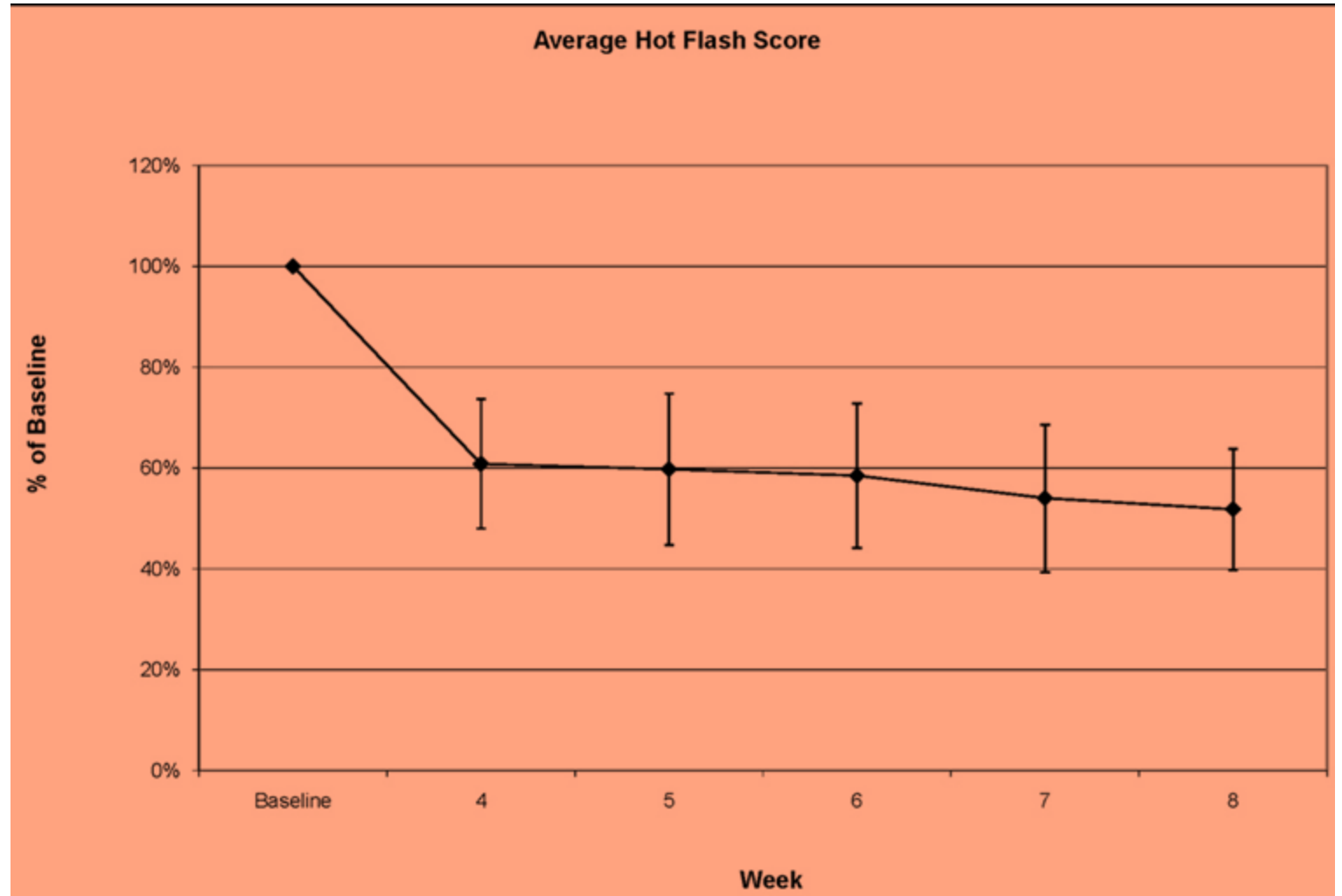
Acupuncture and Vasomotor Symptoms

- **AcCliMaT Trial (n=190)**
- **2016 pragmatic RCT compared individualized acupuncture plus an enhanced self-care regimen with enhanced self-care alone**
- **Combination therapy was superior in reducing hot flash scores both at treatment end and 3- and 6-mo follow-up**



Acupuncture and Vasomotor Symptoms

- **Pilot study (n=22) in men on ADT for Prostate Cancer**
- **Received EA biweekly x4 weeks, then weekly for 6 weeks**
- **55% responded w/ at least 50% HF reduction**





Symptom Management: Insomnia



CHoosing Options for Insomnia in Cancer Effectively

- **Insomnia has deleterious effects and occurs in up to 60% of cancer survivors**

Cognitive behavior therapy for insomnia (CBT-I) ^{1,2}

- Effective
- Poor adherence and non-response
- Not accessible

Acupuncture ^{3,4}

- Modulates brain regions involved in cognition and emotion
- Increasing evidence for pain, hot flashes, and related sleep disturbance
- At 73% of US cancer centers

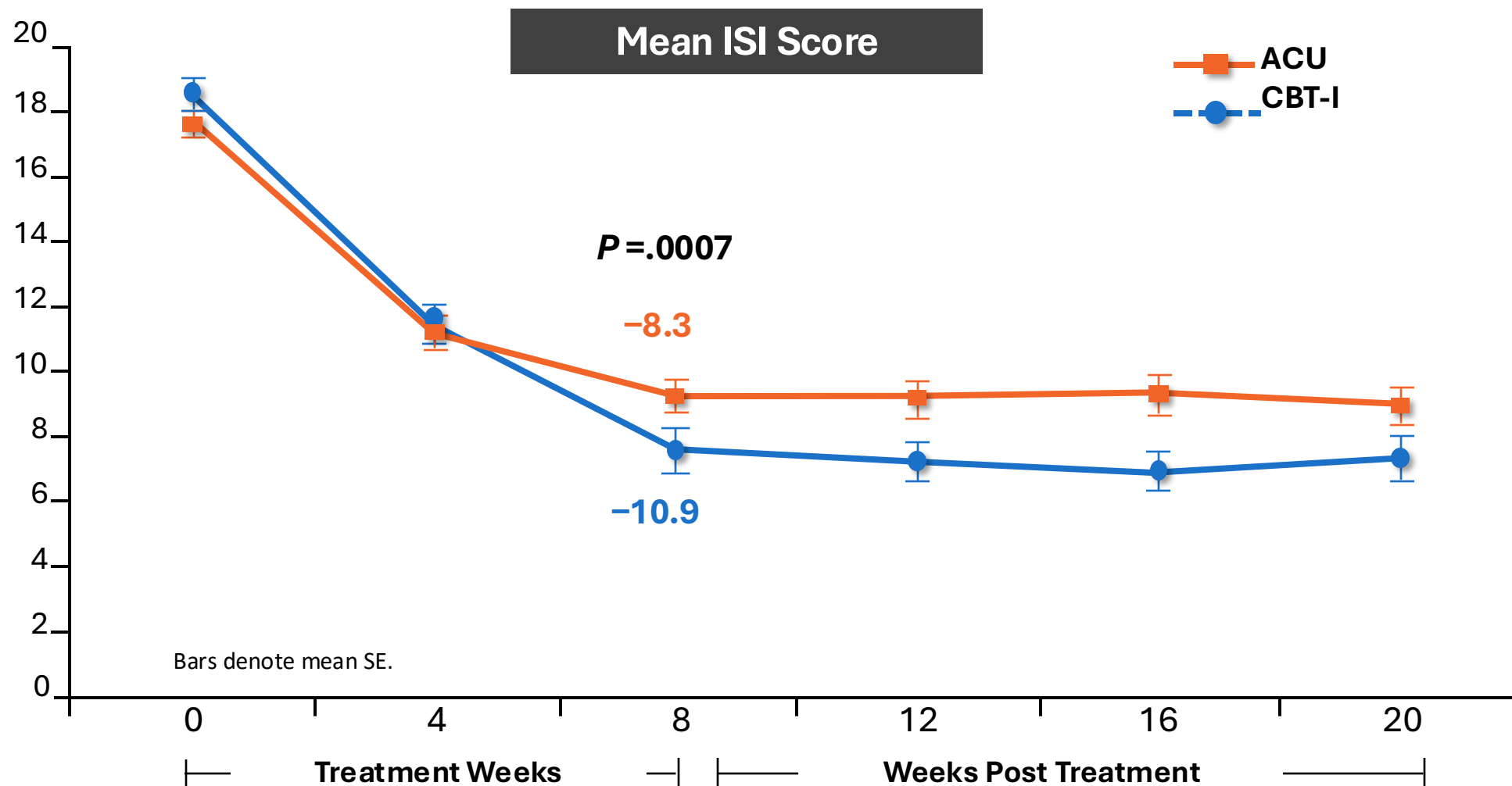
1. Johnson et al. *Sleep Med Rev* 2016 27:20-28

2. Matthews et al. *Behav Sleep Med* 2012;10:217-229

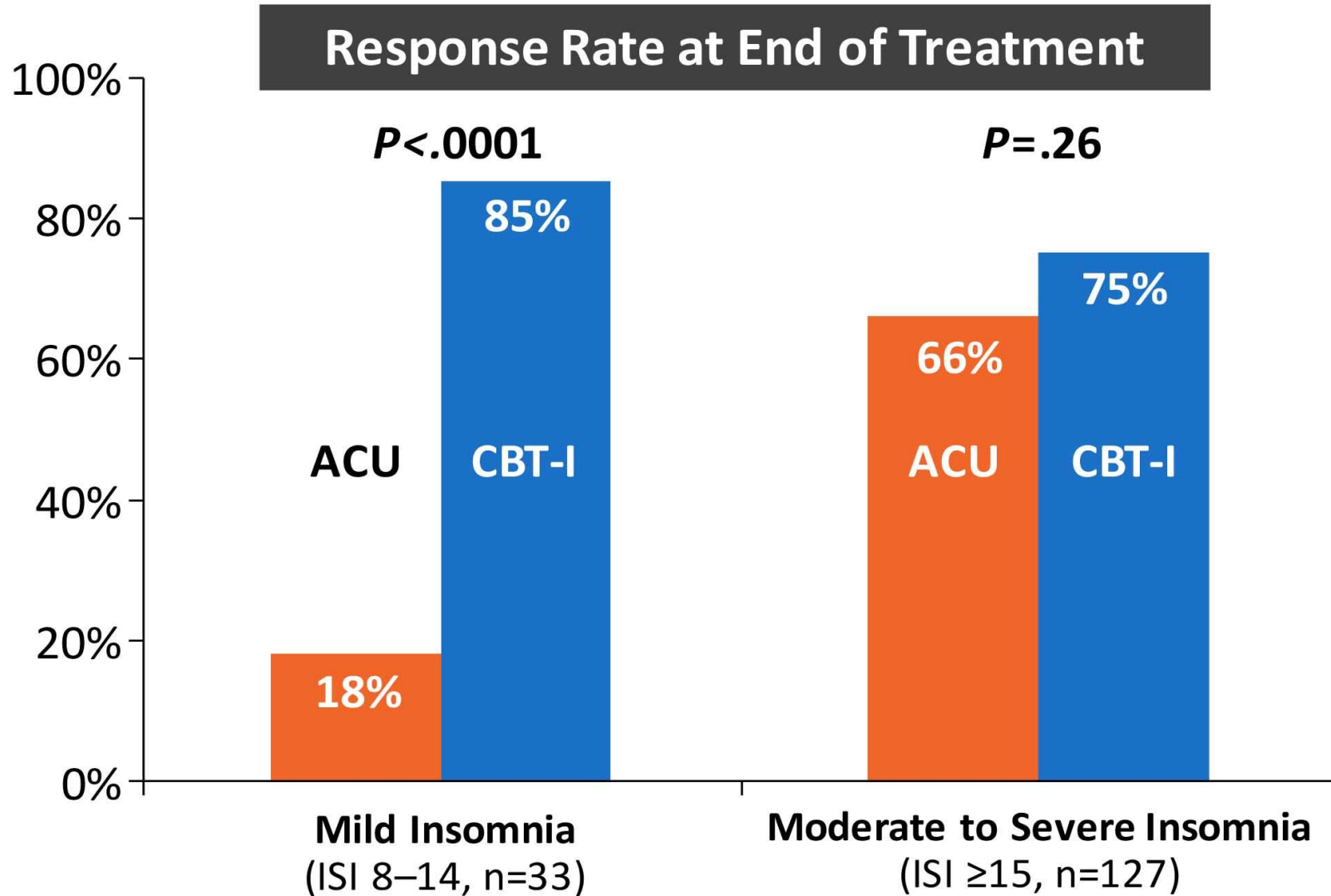
3. Yun et al. *J Natl Cancer Inst Monogr* 2017, 2017

4. Zia et al. *J Natl Cancer Inst Monogr* 2017, 2017

Primary Results



Primary Results



Tai Chi for Insomnia

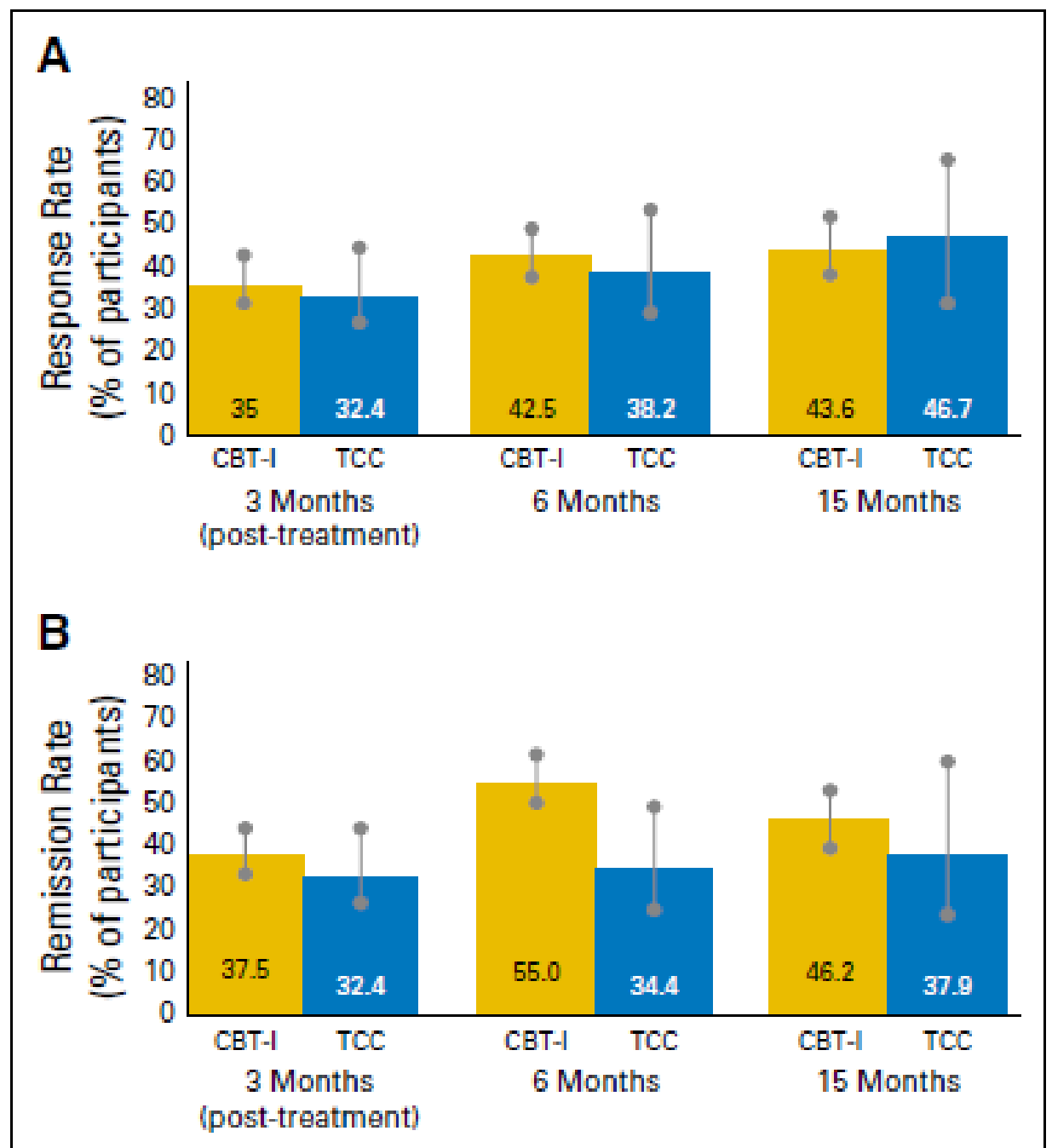
90 were randomly assigned (CBT-I: n = 45; TCC: n = 45).

The proportion of participants who showed insomnia treatment response at 15 months was 43.7% and 46.7% in CBT-I and TCC, respectively.

Tests of noninferiority showed that TCC was noninferior to CBT-I at 15 months ($P = .02$) and at months 3 ($P = .02$) and 6 ($P < .01$).

For secondary outcomes, insomnia remission was 46.2% and 37.9% in CBT-I and TCC, respectively.

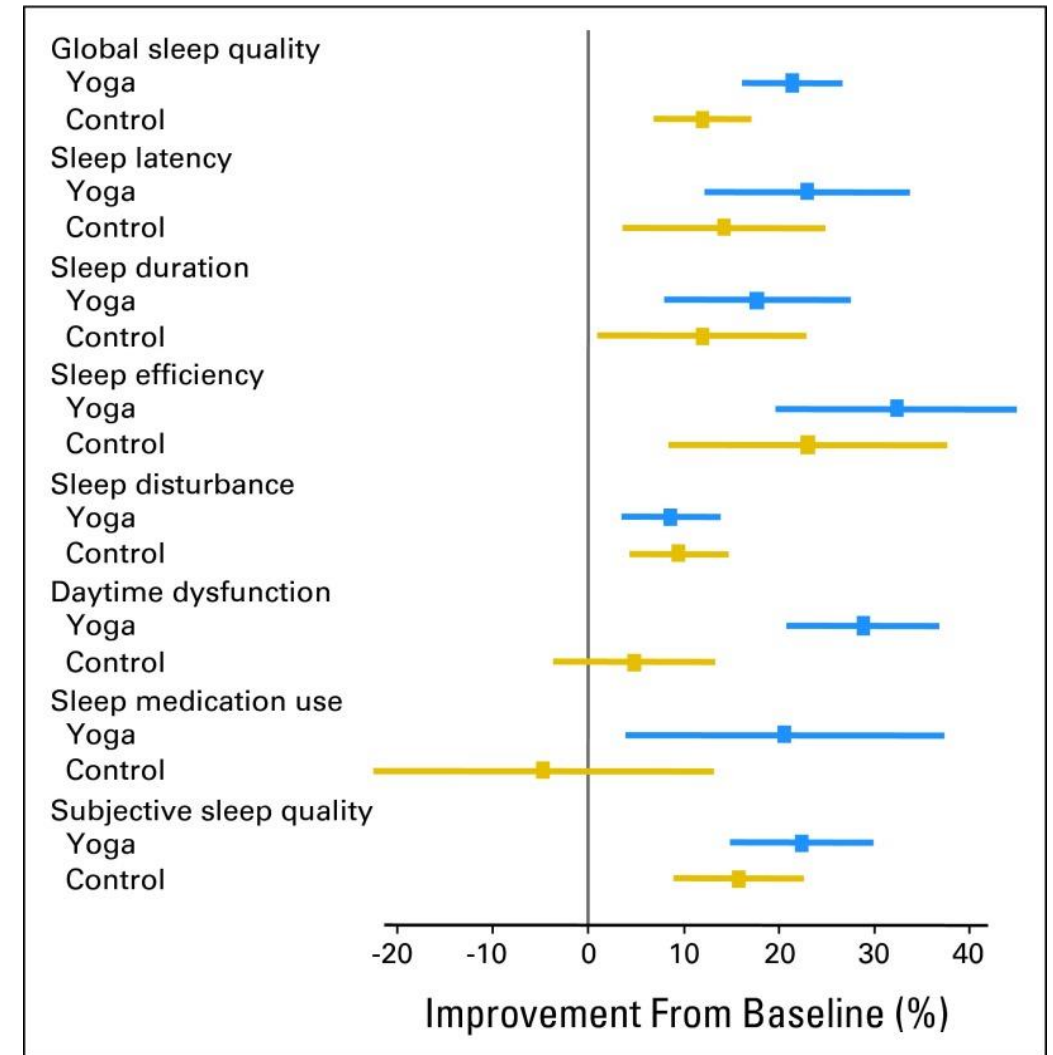
Irwin et al, JCO 2017



Yoga Improved Sleep Quality Among Cancer Survivors

- 410 survivors w/ moderate to severe sleep disruption
- standard care or standard care plus the 4-week yoga intervention
- pranayama (breathing exercises), 16 Gentle Hatha and Restorative yoga asanas (postures), and meditation
- two 75-minute sessions per week
- Sleep quality was assessed by using the Pittsburgh Sleep Quality Index and actigraphy pre- and postintervention
- Yoga participants demonstrated greater improvements in global sleep quality and, secondarily, subjective sleep quality, daytime dysfunction, wake after sleep onset, sleep efficiency, and medication use at postintervention (all $P \leq .05$) compared with standard care participants.

Mustian, K et al. JCO 2013





Supplements

Herbs and Dietary Supplements: Current Practices



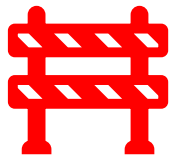
- High prevalence of usage among people living with cancer (64-81%)



- Typically used to optimize health, complement cancer treatment, and assist or replace a healthy diet



- Supplement use feels empowering and a way to take back control



- Supplements are not currently recommended for cancer prevention or to augment cancer treatment



Recommendations for Cancer Prevention



Be a Healthy Weight



Be Physically Active



Eat a diet rich in whole grains,
vegetables, fruit, beans



Limit fast foods & processed
foods



Limit red & processed meat



Limit sugar-sweetened drinks



Limit alcohol



Do not rely on supplements



Breastfeed if possible



After cancer diagnosis, follow
recommendations if feasible

Guidelines from Oncology Organizations



- All attempts should be made to **obtain needed nutrients through dietary sources** before considering supplements
- Can be considered if a **nutrient deficiency** is noted biochemically (vitamin D, B12) or clinically (low bone density)
- Should be considered if **nutrient intake** is persistently **below 2/3** of recommended intake level



➤ Herbs and Dietary Supplements:

➤ Potential for Harm



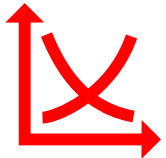
➤ Supplements are not regulated by the FDA



➤ Quality, contamination and adulteration issues



➤ Potential for **supplement-drug interactions**



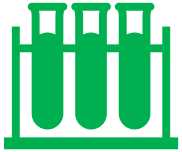
➤ Potential to increase chemotherapy toxicity or decrease efficacy





Herbs and Dietary Supplements: More Research is Needed

- Most supplement claims rely on **preclinical** data



- Test tube and animal studies



- Do results translate to benefits in humans?



- When promising preclinical data is found, this can lead to large scale clinical trials



Herbs and Dietary Supplements: More Research is Needed

Example: Pacific Yew Tree → Taxol chemotherapy development

- 1964: discovery that extracts were toxic to oral epidermoid carcinoma cells in a test tube
- 1971: Chemical structure of Taxol was isolated and published
- 1977: Antitumor activity was confirmed in animal models
- 1980s large-scale human trials were conducted
- 1992: FDA approval





About Herbs Website

290+ monographs; each contains

- Clinical Summary
 - Scientific Name
 - Common Names
 - Patient Use
 - Constituents
 - Mechanism of Action
 - Warnings/Adverse
- Drug Interactions
 - Dosage
 - Literature Summary and Critique
 - References

Reactions



www.mskcc.org/aboutherbs



Herbs and Dietary Supplements: Bottom Line



- Use supplements with caution



- Try to achieve nutritional needs through diet alone



- Speak with your oncologist regarding current or planned supplement use
- Oncologists: ask your patients about supplement use!



Zakim Center Resources



The Leonard P. Zakim Center for Integrative Therapies & Healthy Living

Dan Glidden, M.S., PA-C

What is the Zakim Center?

- Provides patient-centered integrative medicine services and programs that are evidence-informed and support patient well-being before, during and after cancer treatment



On-site Acupuncture and Massage



Nutrition Education



Yoga and Exercise classes



Expressive Arts Therapy



Meditation sessions and Mindfulness-Based Stress Reduction courses



Integrative Medicine Consultations



Zakim Group Programs (virtual and in-person)*

Exercise

- Aerobics & Cardio Workouts
- Strength Training
- Core Strength
- Yoga Flow, Yogalates
- Chair Yoga & Chair Strength
- Dance & Movement
- Tai Chi
- Qigong

Expressive Arts

- Creative Arts Workshops
- Journaling for Self Care
- Meditation with Live Music
- Music Therapy for Better Sleep

Nutrition

- 13 Weeks to Wellness
- Ask the Nutritionist
- What's Cookin' with Zakim

Meditation & Mindfulness

- Meditation drop-in sessions
- Mind Body Book Discussion
- Mind Body Resilience Online

****Available through MyZakim,
our online platform for virtual live
classes and on-demand programming
<https://myzakim.dana-farber.org/>***



 **Dana-Farber**
Cancer Institute

Leonard P. Zakim Center
for Integrative Therapies
and Healthy Living

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[Home](#) [Class Schedule](#) [Programs](#) [More Offerings](#) [Digital Library](#) [Donate](#) [Sign Up](#) [Login](#)

Chrome or Firefox are highly recommended. Please login or signup to view the full class schedule.

Welcome to the Zakim Center!

The Leonard P. Zakim Center for Integrative Therapies and Healthy Living at Dana-Farber is dedicated to the belief that cancer patients can enhance their quality of life through integrative therapy...

Welcome to MyZakim! We're so happy you're here!



Here you can access live and on-demand wellness classes developed by the Leonard P. Zakim Center at Dana-Farber Cancer Institute.

Dana-Farber patients and caregivers can register for an account using the "Sign Up" button on the upper right-hand corner of this home page. Any Dana-Farber staff interested in signing up should contact the [Zakim Center](#).

MyZakim: The Zakim Center's Virtual Group Programming

- Nutrition | Exercise | Meditation & Mindfulness | Expressive Arts Therapy

<https://myzakim.dana-farber.org/>



Music Therapy at the Zakim Center

Videos



Music-Guided Even Breathing

27 Oct, 2021



Music-Guided 2-2-4 Breathing Exercise

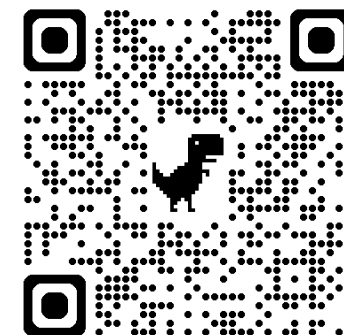
27 Oct, 2021



Music-Guided Progressive Muscle Relaxation

27 Oct, 2021

<https://myzakim.dana-farber.org/>



Exercise Resources on MyZakim:

<https://myzakim.dana-farber.org/>



All On-Demand Exercise Classes

Browse our extensive library of recorded classes – here you'll find videos that vary in duration, topic, impact, and more!



Aerobics & Cardio



Strength Training



Yoga Flow, Yogalates



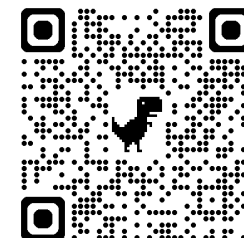
Chair Yoga & Chair Strength



Dance & Movement

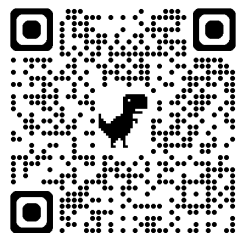


Tai Chi & Qigong



Exercise Resources on MyZakim:

<https://myzakim.dana-farber.org/>



Curated Exercise Video Collections:



Workouts to Help Manage Lymphedema

These classes are designed for patients with lymphedema or at risk for lymphedema, to help alleviate symptoms.

[View Collection >>](#)



Workouts to Help Manage Neuropathy

These classes are designed for patients with neuropathy, to help alleviate this common side effect of chemotherapy.

[View Collection >>](#)



Pose or Exercise Breakdowns

Learn how to do a squat or an elbow plank! These are short videos that break down exercises or yoga poses in a simple and safe way with proper form.

[View Collection >>](#)



Move in Minutes

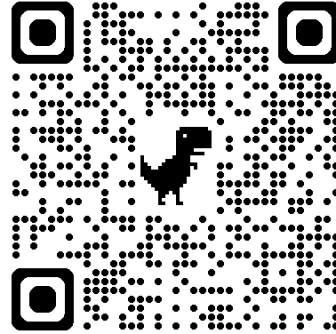
Short on time? Try a quick, but effective, workout from our Move in Minutes series! All video are under 20 minutes long, so you're sure to find something that fits your time and interests!

[View Collection >>](#)

Meditation Resources on MyZakim:



Mindfulness Meditation



Sound Bath

On-Demand Meditations

[A Walking Meditation to Help Fight Fatigue](#)

5 May, 2023

[Meditation on Letting Go](#)

15 Dec, 2022

[View All](#)

On-Demand Sound Baths

[10 Minutes of Calm with Crystal Singing Bowls](#)

6 Feb, 2025

[Crystal Singing Bowls for a Moment of Peace](#)

15 Oct, 2024

[Crystal Singing Bowls for Relaxation](#)

26 Sep, 2024

<https://myzakim.dana-farber.org/>

Nutrition Resources on MyZakim:

Home > Nutrition > Manage Nutrition Related Side Effects

Manage Nutrition Related Side Effects

If you're struggling with nutrition-related side effects, our "what to eat when" recipe lists can give you quick and easy ideas to feel better.



What to Eat When Video Series

Learn strategies to manage your nutrition-related side effects in minutes.



What to Eat When You Have Mouth Sores

Foods with smooth, soft textures that are cold or at room temperature tend to be best tolerated with mouth sores. Limit foods that are rough in texture, salty, spicy, or citrus.

[Learn More >](#)



What to Eat When Food Tastes Bland or Off

Recipes that incorporate fruity or salty flavors tend to taste best when food seems bland. Incorporating herbs, spices, marinades, lemon, vinegar, pickles, or strongly flavored sauces can work well to increase flavor, too.

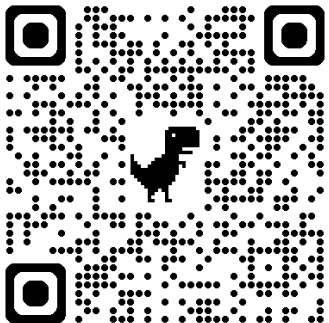
[Learn More >](#)



What to Eat When You Are Constipated

Fiber-rich recipes, such as those containing whole grains, legumes, fruits, and vegetables, can aid in constipation. Slowly increase your fiber intake, and be sure to drink plenty of fluids, including warm beverages like tea or coffee.

[Learn More >](#)



<https://myzakim.dana-farber.org/>

Nutrition Resources on MyZakim:

Home > Nutrition > Manage Nutrition Related Side Effects

Manage Nutrition Related Side Effects

If you're struggling with nutrition-related side effects, our "what to eat when" recipe lists can give you quick and easy ideas to feel better.



What to When You Have Diarrhea

Recipes that include plain, easy to digest foods, like sourdough bread, skinless chicken, tofu, tuna, and eggs can help manage diarrhea. Aim to drink plenty of fluids, limit fatty foods, and choose soluble fiber sources such as oats, applesauce, bananas, barley, and citrus fruits.

[Learn More >](#)



What to Eat When Food Tastes Bitter, Sour, or Metallic

Recipes with alternative proteins to meat like chicken, eggs, tofu, dairy foods, nuts, or beans may taste better. Sweet or sour fruits and beverages alongside meals may help to counteract these tastes, as well.

[Learn More >](#)



What to Eat When Food Tastes Too Sweet

Recipes with bland or sour flavors may help to counteract overly sweet tastes. Choose vegetables more often than fruits.

[Learn More >](#)

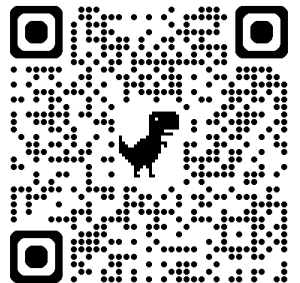


What to Eat When Food Tastes Too Salty

To counter a salty taste, choose recipes that are naturally sweet, bland, and low in sodium. Boiled foods may help in reducing flavor, too.

[Learn More >](#)

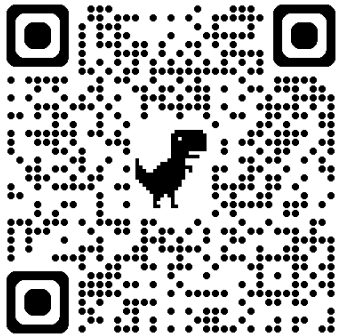
<https://myzakim.dana-farber.org/>





Nutrition Resources on MyZakim:

“What to Eat When” Video Series



[What to Eat When You Experience Taste Changes During Cancer Treatment](#)

17 Jan, 2024

[What to Eat When You Have Constipation During Cancer Treatment](#)

7 Apr, 2023

[What to Eat When You Don't Have an Appetite During Cancer Treatment](#)

7 Apr, 2023

[What to Eat When You Have Diarrhea During Cancer Treatment](#)

7 Apr, 2023

[What to Eat When You Have Nausea During Cancer Treatment](#)

7 Apr, 2023

[Unintentional Weight Changes During Cancer Treatment and Recovery](#)

7 Mar, 2022

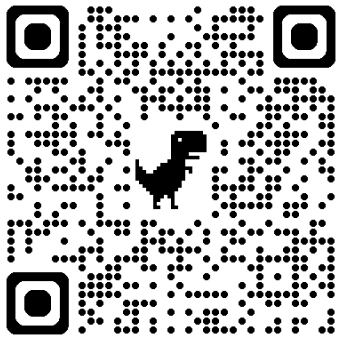
[Coping with Treatment-Induced Taste Changes](#)

29 Jul, 2021

<https://myzakim.dana-farber.org/>

Nutrition Resources on MyZakim:

Get My Top
Nutrition Questions
Answered



Videos

[Does Eating a Plant-based Diet Reduce Cancer Risk?](#)
1 Oct, 2024

[Does Sugar Increase Cancer Risk?](#)
1 Oct, 2024

[Do Processed Foods Cause Cancer?](#)
1 Oct, 2024

[Does Eating Grilled Food Increase Cancer Risk?](#)
25 Apr, 2024

[View All](#)

Presentations

[Food Safety Facts](#)
12 Sep, 2025

[Lessons in Legumes](#)
11 Jul, 2025

[All About Oils!](#)
8 May, 2025

[Nutrition for Bone Health](#)
5 Sep, 2024

[View All](#)

Commonly Asked Questions

 Does sugar increase cancer risk? 

 Does dairy increase cancer risk? 

 Does soy increase cancer risk? 

 Are grilled foods safe to eat? 

 How can I promote gut health after being on antibiotics? 

 Does eating foods with small amounts... 

<https://myzakim.dana-farber.org/>

Key Takeaways

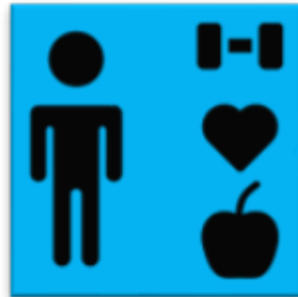
Integrative Oncology: a patient-centered, evidence-informed field of **comprehensive** cancer care that utilizes complementary therapies **alongside** conventional cancer treatments



During Treatment Benefits (Exercise): Fatigue, QoL, Physical Function, Anxiety, Depression, Lymphedema; **ACSM has Exercise Rx's** for these indications

Lifestyle is Key for Cancer Prevention!

➤ ~19% of cancer cases in the US are directly attributable to lifestyle



Nutrition: no convincing evidence for rigid restrictive diets for prevention or during treatment/survivorship; follow Mediterranean Diet for multiple health benefits

Follow AICR/ACS guidelines for cancer prevention guidelines both for prevention and for healthy living with cancer



CHALLENGE trial: Survival benefit in CRC with structured exercise



Many benefits of integrative therapies during and after cancer treatment: Pain, fatigue, hot flashes anxiety/depression, insomnia



Thank You!