

# COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM) AND CANCER SURVIVORSHIP: STRATEGIES FOR INFORMED DECISION MAKING

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BC Cancer Agency Survivorship Forum

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BC Cancer Agency  
CARE & RESEARCH

CAMEO  
Complementary Medicine Education & Outcomes Program



# Complementary Medicine Education and Outcomes (CAMEO) research program

**A living laboratory focused on knowledge translation related to CAM and cancer:**

- Support safe and informed CAM decision-making
- CAM education of patients, families, health professionals
- Facilitate new CAM research

*The goal is to support individuals in making informed CAM decisions, not recommending or offering specific therapies.*



# Today's Objectives

- Understand cancer survivors' unique CAM needs and CAM therapy use
- Describe the challenges, issues and gaps in CAM survivorship care
- Identify strategies and resources for making safe evidence-informed decisions about using CAM
- Examine emerging evidence for common CAM therapies used by survivors

# Survivor/Survivorship

“An individual is considered a cancer survivor from the time of diagnosis, through the balance of his or her life. Family members, friends, and care-givers are also impacted by the survivorship experience and are therefore included in this definition.”



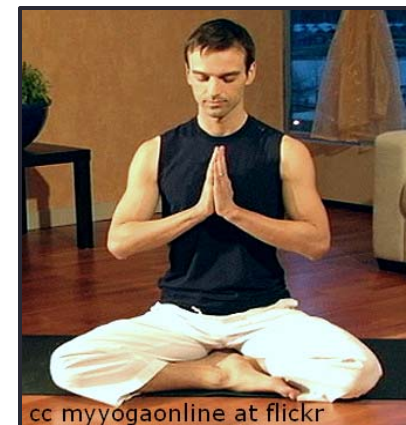
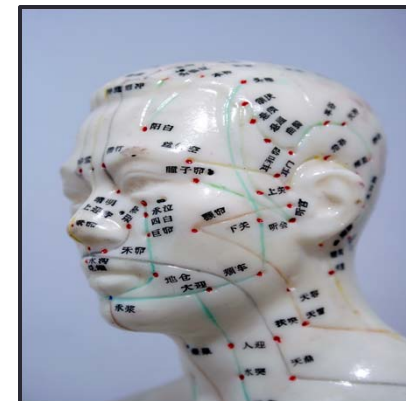
*Adapted from the National Coalition for Cancer Survivorship, Office of Cancer Survivorship, National Institutes for Health, USA*

# What is CAM?

"a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine..."

National Centre for Complementary & Integrative Health (NCCIH)

Body-based  
Mind-body  
Biologically-based  
Energy  
Whole systems



# CAM Terminology

## Complementary medicine

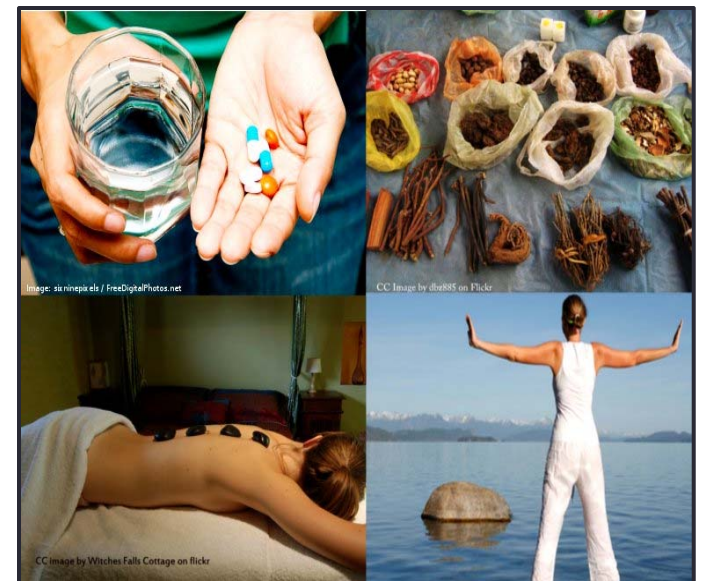
used *together with* conventional medicine

## Alternative medicine

used *in place of* conventional medicine

## Integrative medicine

combines treatments from conventional medicine and CAM for which there is evidence of safety and effectiveness



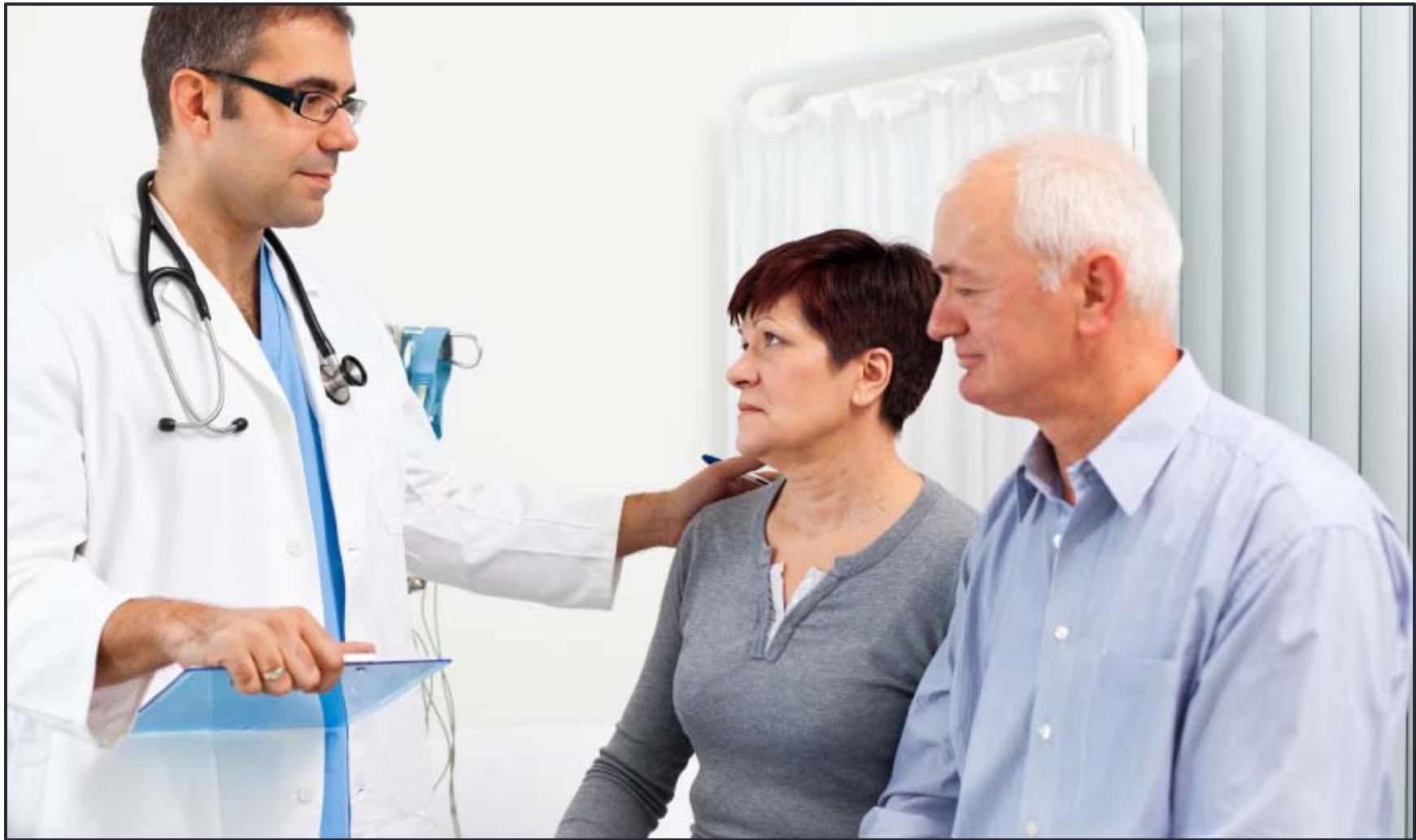


**Meet Robin**

***“Diagnosis”***



# Why does CAM matter?





# The Gap

- Up to 67% of survivors use CAM after the completion of primary treatment
- Few discuss CAM use with their health care professionals (HCPs)
- Research has shown survivors, families and HCPs struggle with making safe and informed decisions about CAM.

Ben-Ayre et al., 2010; Bishop et al., 2011; Boon et al., 2007; Cassileth & Vickers, 2005; Fonnebo et al., 2007; Gozum et al., 2003; Kafke et al., 2012; Mao et al., 2008; Mao et al., 2011; Mayadagli et al., 2011; Molassiotis et al., 2005; Saini et al., 2011; Verhoef et al., 2005

# Survivors' Voices...

“...I just realized that there was so much information about supplements that it was quite overwhelming... and a friend gave me a book, and if you did all the things in the book all you'd do all day is take pills with or without food... Who knows, maybe the answer is in there, but I had no way of weighing the benefits of any of these things first.” (ovarian cancer survivor)



“...there is no co-operation between complementary medicine and official medicine... there is sort of barrier between, and the information we have is only partial. It's confusing...” (prostate cancer survivor)

# When CAM is left out of standard cancer care...

## Safety concerns

- Concurrent CAM with conventional treatment and/or chemoprevention
- “Silent” NHP use during clinical trials (Naing et al., 2011)
- Delay of conventional treatment/chemoprevention
- Physical, financial or emotional harm
- Decision distress, conflict, regret

## Missed benefits

## Trust & communication issues

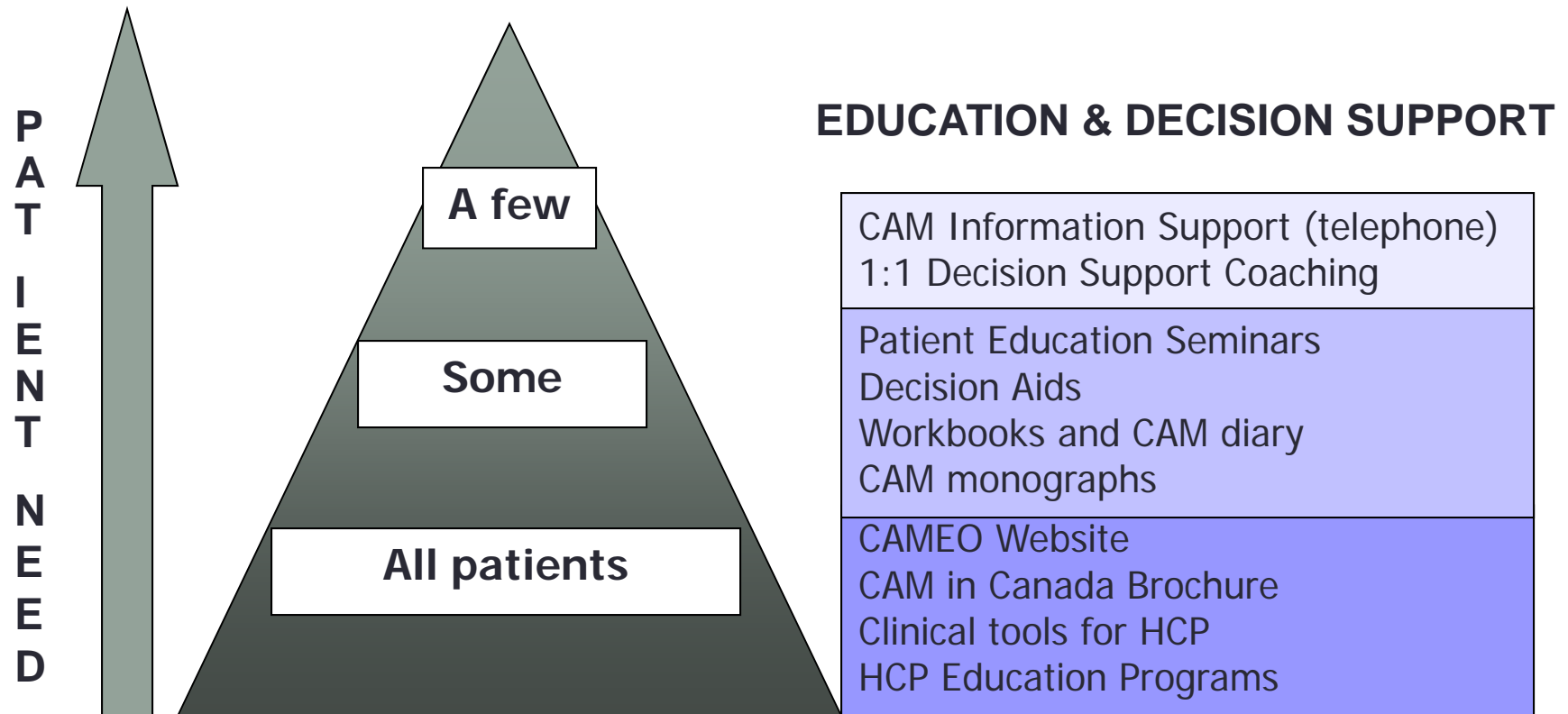
Ben-Ayre et al. 2010; Fonnebo et al. 2007; Juraskova et al. 2010; Kim et al., 2008; O'Connor, et al., 2006; Rausch et al., 2010; Schofield et al., 2010; Tung et al., 2009; Verhoef et al., 2008.

# Why is there a GAP?

- Blurring of paradigms
- State of CAM evidence
- Biomedical model dominance
- Survivors unsure/wary to disclose
- Health care professional education
- Over \$5.6 billion spent out-of-pocket each year by Canadians on CAM  
(Fraser Institute, 2007)



# Addressing the GAP: The CAMEO Program



Balneaves et al., (2012). *Patient Education and Counseling*, 89(3), 461-6  
[www.cameoprogram.org](http://www.cameoprogram.org)

# Education Programs

## 1. Patient/Family:

Increased CAM knowledge and decision self-efficacy

Decreased CAM decision conflict and distress

Decreased polytherapy use of CAM

## 2. Health Care Provider:

Increased CAM knowledge and attitudes

Increased CAM practices

- Provided CAM info, review/discuss evidence, document & monitor use

**CAMEO**  
Complementary Medicine Education & Outcomes Program © 2011

Outline Search References

1. The Significance of CAM in Cancer Care
2. Introduction to Lesson 1
3. Let's get started!
4. What is CAM?
5. History of CAM in Canada
6. Regulation of CAM Products and Practices
7. CAM Continuum
  - 8. CAM Continuum: A Matter of Perspective
  - 9. When is a CAM Therapy not a CAM Ther...
  - 10. Classification of CAM Therapies
  - 11. The Nature of CAM Interventions
  - ▶ 12. Why do people use CAM?
  - 14. HCP Concerns about CAM and Cancer
  - 15. Disclosure of CAM Use
  - ▶ 16. BCCA-VC Patient CAM Use Survey
  - 22. HCP Scope of Practice and CAM
  - 23. Points to consider...
  - 24. Lesson One Summary
  - 25. Congratulations
  - 26. To finish lesson

What is CAM?

Click next to continue

**A matter of perspective!**

The term **CAM** is used to define those therapies not currently part of standard medical care (NCCAM, 2011).

**But what is CAM?**

- CAM products and practices are diverse.
- There is a lack of consensus and shared understanding about basic definitions and terminology.
- HCPs need to know what falls under the umbrella of CAM in order to understand the patient's interest in using products and practices outside of conventional medicine.

Conventional Medicine: Definitions

SLIDE 4 OF 26 PLAYING 00:05 / 00:20

[www.cameoprogram.org](http://www.cameoprogram.org)

# CAMEO Decision Support Programs

## 1:1 Decision Support Coaching Intervention

- Increased CAM knowledge, decision confidence and preparedness
- Reduced decision conflict and distress
- Trends toward enhanced safe use of CAM
- Increased use of evidence based diet, exercise & lifestyle interventions

## MyChoices Decision Aid – *coming soon!*

- CAM therapy use for hot flashes after treatment for breast cancer
- Acupuncture, black cohosh, soy
- Decreased decision conflict; increased CAM knowledge; increased use of soy and mind-body therapies

Balneaves et al. (in press). Assessment of information and decision support needs for managing hot flash symptoms after breast cancer. *Journal of Supportive Care in Cancer*.

## CAM Decision Support Best Practice Guideline – *coming soon!*

- Evidence informed practice guideline for health care professionals to provide CAM decision support in the clinical setting
- BCCA and Cancer Care Manitoba





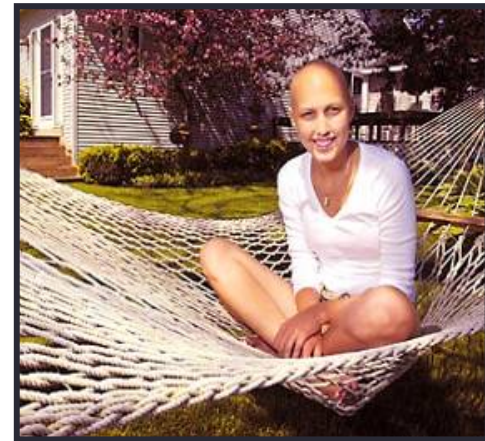
# CAM USE BY CANCER SURVIVORS

## Prevalence and Patterns of Use



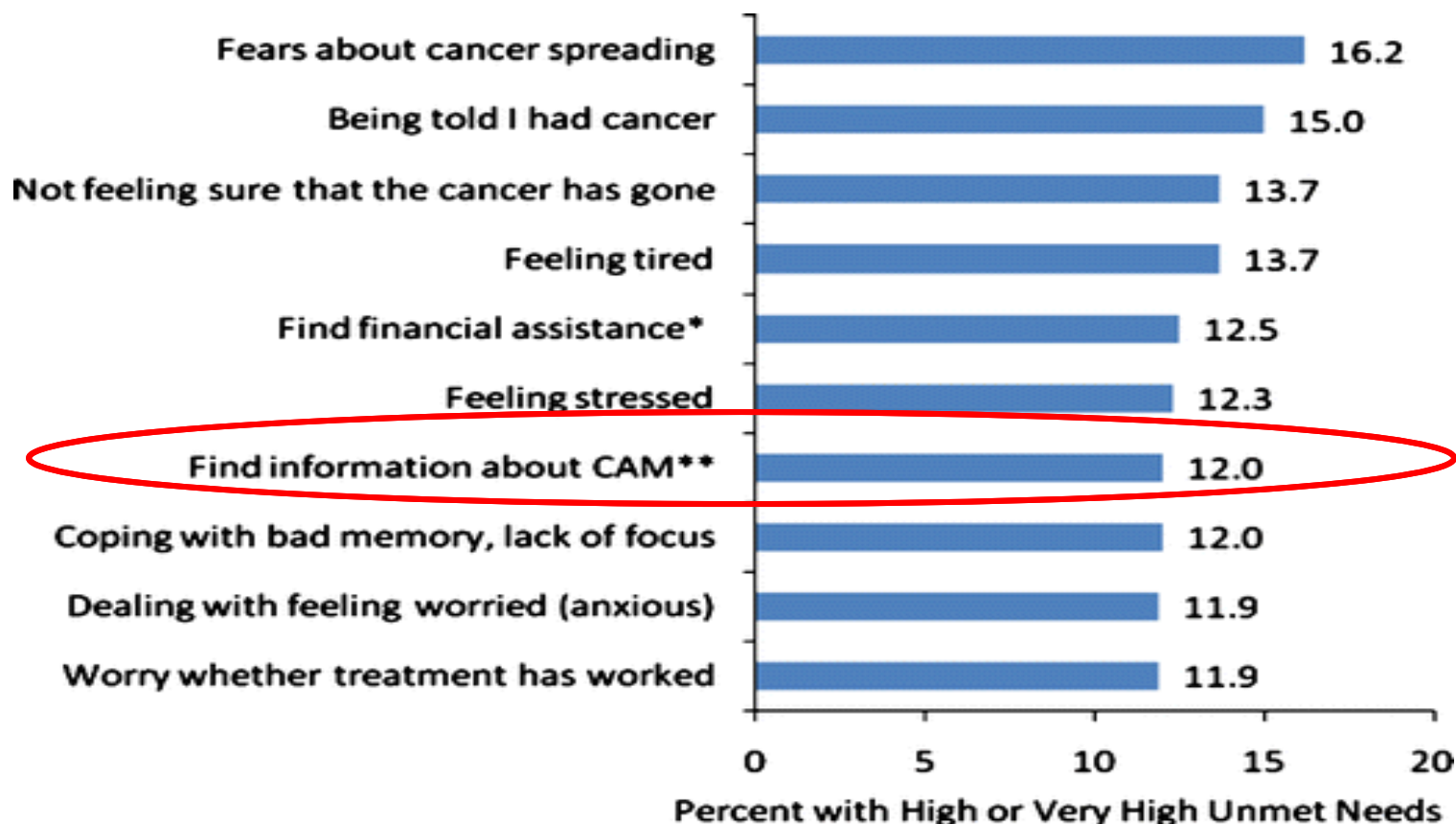
# Which Survivors are using CAM?

- Breast, prostate, gynae, colorectal, melanoma, lymphoma
- Advanced disease
- Younger
- Higher education
- Higher income
- Previous chemotherapy
- Unmet needs



Bell, 2010; Boon, 2007; Ernst & Cassileth, 1998; Humpel & Jones, 2006; Mao et al., 2007, 2008, 2011; Matthews et al., 2007; Shen et al., 2002; Sohl et al., 2013; Truant et al., 2013

# Unmet Needs of Cancer Survivors (Campbell et al., 2011)



\* "Finding what financial assistance is available and how to obtain it"

\*\* CAM = complementary and alternative medicine

# Survivors with unmet needs more likely to use CAM (Mao et al., 2008)

**Table 3**  
CAM use by unmet needs among cancer survivors

Therapies	With unmet needs (N = 418)	Without unmet needs (N = 196)	P-value
	% Reporting use	% Reporting use	
Megavitamin	35.6	24.4	0.008
Natural products/herbs	29.7	19.4	0.01
Deep breathing	29.9	18.1	0.003
Meditation	23.6	10.7	<0.001
Massage	17.4	7.3	0.002
Chiropractic care	11.3	7.3	0.141
Guided imagery	8.4	2.8	0.019
Yoga	7.1	3.4	0.089
Acupuncture	3.1	0.6	0.07
Tai chi	2.6	0.6	0.145
Qi gong	1.5	0	NA

P-value was based on univariate logistic regression.

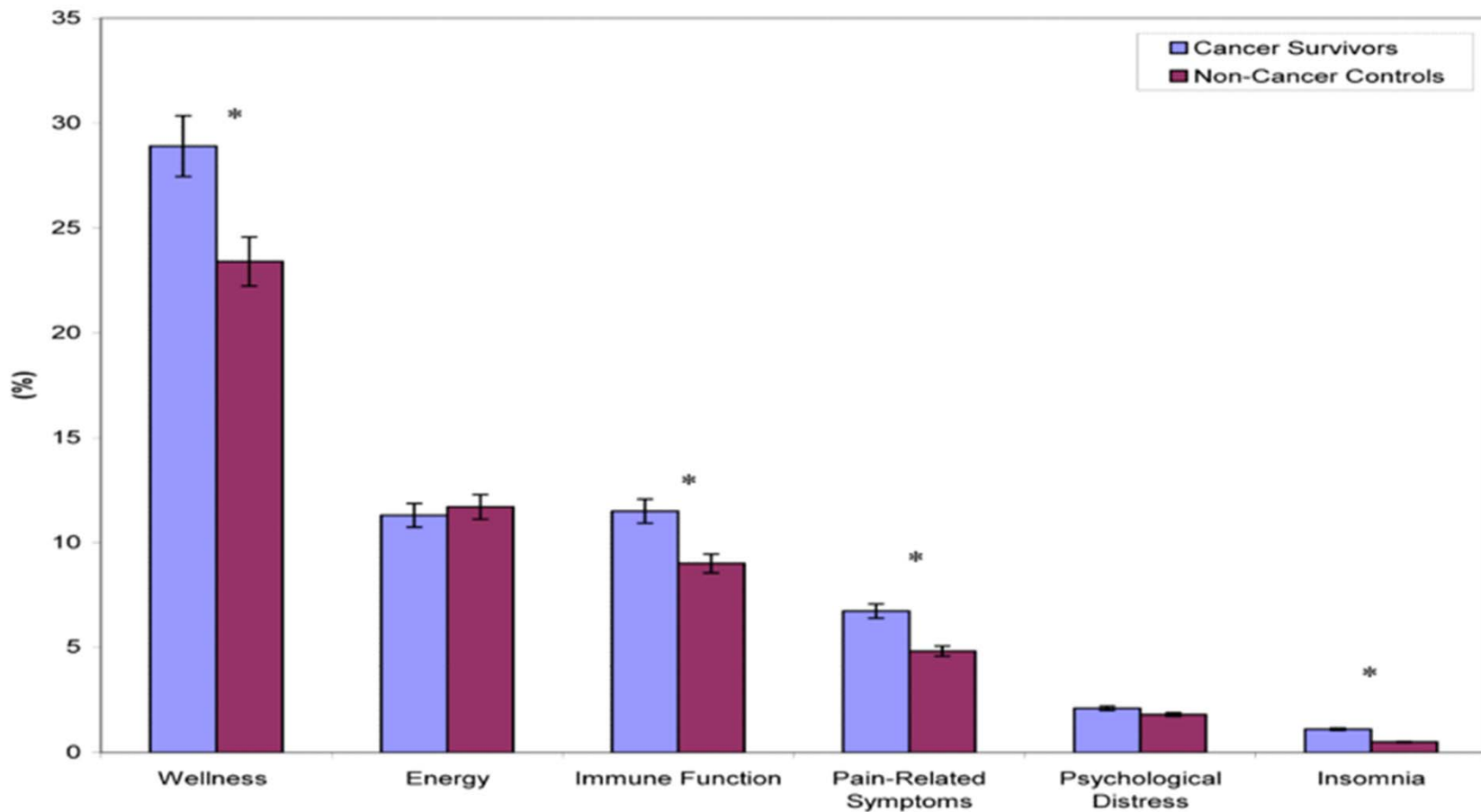
CAM: complementary and alternative medicine

# Types of CAM Use: Survivors

(Mao et al., 2011)

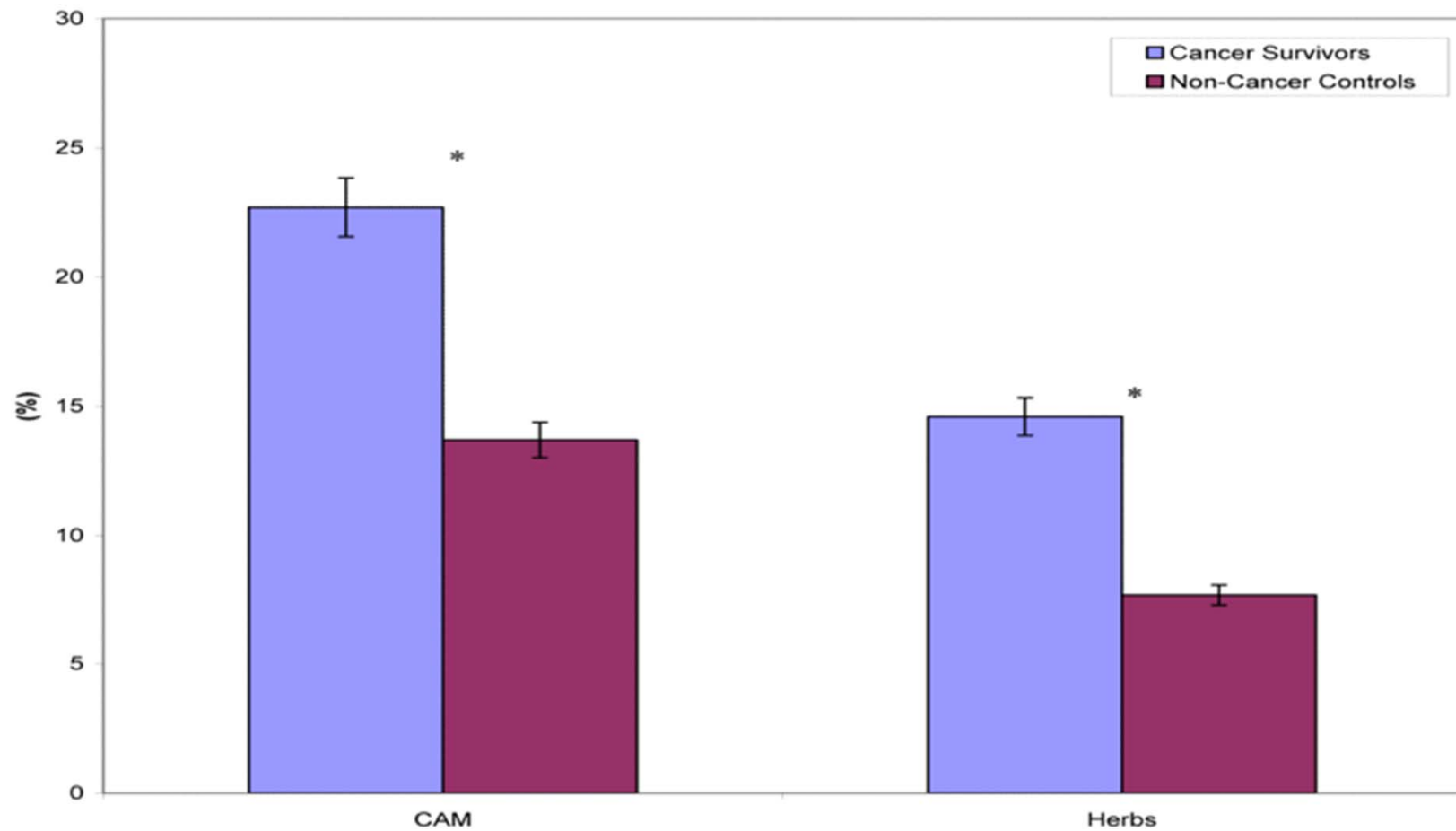
Therapies	Ever Used			Used in Past 12 months		
	Cancer Survivor (%)	Non-Cancer Control (%)	P-value	Cancer Survivor (%)	Non-Cancer Control (%)	P-value
Any CAM therapy	66.5	52.5	<0.001	43.3	37.3	<0.001
Alternative medical systems	15.5	11.2	<0.001	3.2	3.5	0.70
Biologically based	36.8	29.2	<0.001	26.0	19.6	<0.001
Body based	41.8	31.4	<0.001	16.5	15.1	0.24
Mind-body	32.0	25.5	<0.001	21.7	19.4	0.046
Energy based	2.9	1.6	0.002	1.1	0.5	0.027

# Reasons for CAM Use (Mao et al., 2011)



Abbreviations : CAM, complementary and alternative medicine  
\* Significant  $p$ -values (<0.05) by chi-2 test

# Letting Providers know about CAM Use (Mao et al., 2011)



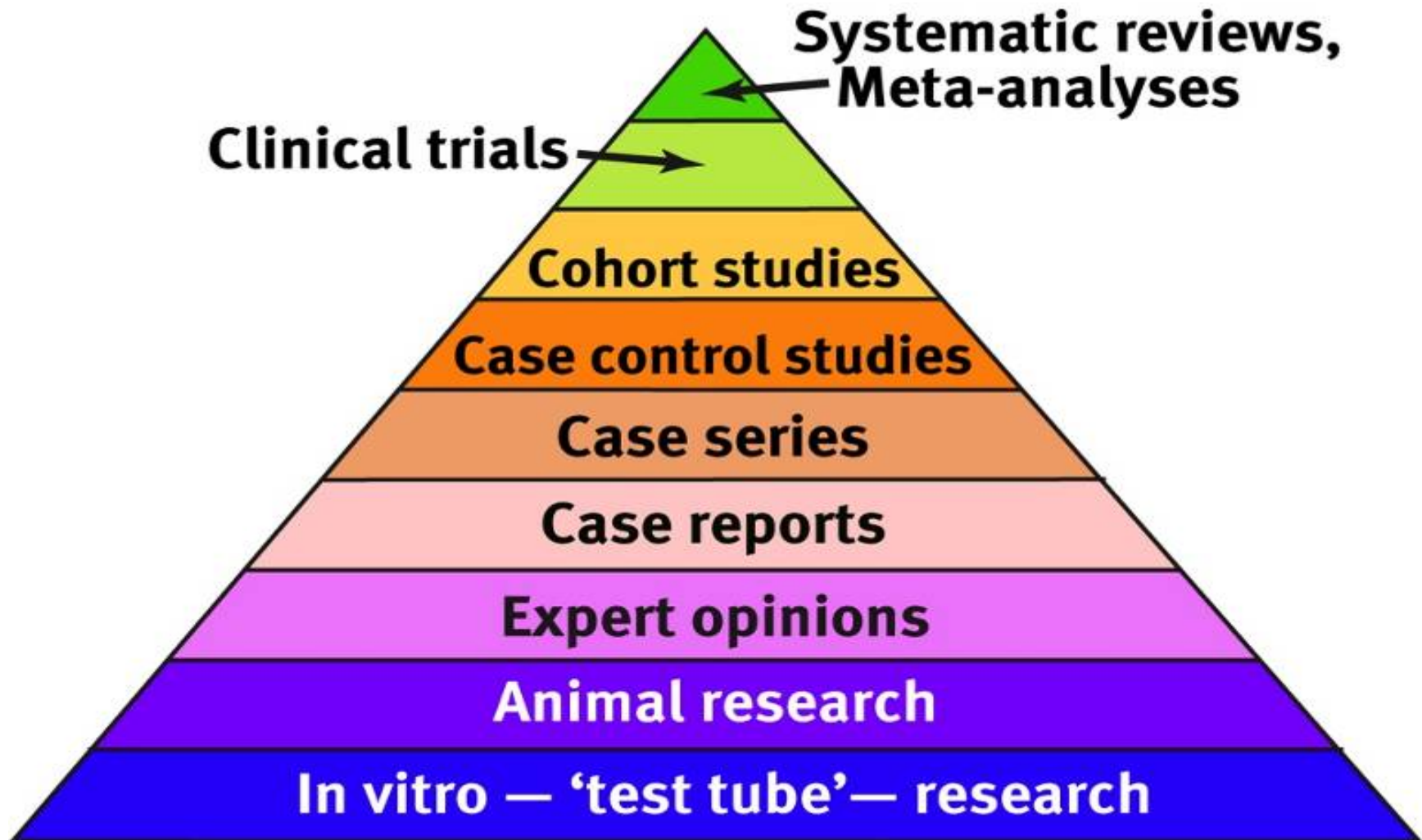
Abbreviations: CAM, complementary and alternative medicine  
\* Significant  $p$ -value ( $<0.05$ ) by chi-2 test



# LOCATING AND USING CAM EVIDENCE



# What do we mean by evidence?



**What's wrong with a mouse?**



# Synthesis of CAM Evidence for Practice

- Deng et al. (2009). **Evidence-based clinical practice guidelines for integrative oncology: Complementary therapies and botanicals.** Journal of the Society for Integrative Oncology, 7(3), 85-120.
- Deng et al. (2013). **Complementary therapies and integrative medicine in Lung Cancer, 3<sup>rd</sup> Ed. American College of Chest Physicians Evidence-Based Clinical Practice Guidelines.** Chest. 143(5\_suppl):e420S-e436S
- Greenlee et al. (2014). **Clinical practice guidelines on the use of integrative therapies as supportive care in patients treated for breast cancer.** J Natl Cancer Inst Monogr; 50: 346-358.

[www.Integrativeonc.org](http://www.Integrativeonc.org)

# Evidence-Based Clinical Practice Guidelines for Integrative Oncology: Complementary Therapies and Botanicals

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**Key words:** cancer, oncology, complementary and alternative medicine (CAM), complementary therapies, integrative medicine

The Society for Integrative Oncology (SIO) is an international organization dedicated to encouraging scientific evaluation, dissemination of evidence-based information, and appropriate clinical integration of complementary therapies.

Practice guidelines have been developed by the authors and endorsed by the Executive Committee of the SIO. Guidelines are a work in progress; they will be updated as needed and are available on the SIO Web site (<<http://www.IntegrativeOnc.org>>).

## Contents

- Executive Summary
- Methods
- Introduction
- Recommendations and Discussion
- Indications for Future Research
- Conclusions
- Summary of Recommendations
- References

## Acknowledgment

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## Executive Summary

In recent years, the term *integrative medicine* has gained acceptance in medical academia. The Consortium of Academic Health Centers for Integrative Medicine defines this term as "the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals, and disciplines to achieve optimal health and healing."<sup>1</sup> *Integrative oncology* has been specifically described as both a science and a philosophy that focuses on the complex health of people with cancer and proposes an array of approaches to accompany the conventional therapies of surgery, chemotherapy, molecular therapeutics, and radiotherapy to facilitate health.<sup>2</sup>

The SIO and its *Medline*-indexed journal (*Journal of the Society of Integrative Oncology*), founded by leading oncologists and oncology professionals from major cancer centers and organizations, promote quality research and appropriate application of useful, adjunctive complementary modalities

Correspondence to: Gary Deng, MD, PhD, Integrative Medicine Service, Memorial Sloan-Kettering Cancer Center, 1429 First Avenue, New York, NY 10065; e-mail: [dengg@mskcc.org](mailto:dengg@mskcc.org).



## The SIO Guidelines\* recommend that all patients should:



- Be asked about the use of CAM
- Receive guidance about CAM in an open, evidence informed, and patient centered manner by qualified personnel
- Be advised to avoid therapies promoted as “alternatives” to mainstream care

\*Deng et al., 2009

# Integrative Oncology Practice Guidelines

*(Deng et al., 2009)*

RECOMMENDED	CAUTION	NOT RECOMMENDED
<u>MIND BODY</u> Visualization Meditation Relaxation Biofeedback Prayer		
<u>BODY BASED</u> Massage Exercise Diet		Deep pressure massage near wounds or cancer lesions; or with bleeding
<u>ENERGY THERAPIES</u> Acupuncture Reiki Therapeutic Touch	Acupuncture with risk of bleeding	Electrostimulation wristbands for nausea & vomiting
<u>NATURAL HEALTH PRODUCTS</u>	Evaluate dietary supplements and herbal products for side effects or potential interaction with other drugs	Those that are likely to interact with other drugs, should not be used: <ul style="list-style-type: none"> <li>• During chemotherapy</li> <li>• During radiation therapy</li> <li>• Before surgery</li> </ul>



# An Exception: Vitamin D



- **Canadian Cancer Society (2007)**
  - 1,000 IU of Vitamin D<sup>3</sup> during fall/winter months for cancer prevention (adults)
- Optimal dose under review
- **Caution:** High doses may increase risk in pancreatic (Stolzenberg-Solomon et al., 2010) and advanced prostate (Ahn et al., 2008) cancer
- **Role of Vitamin D in other chronic diseases** (Horlick, 2007; Zitterman, 2007)
  - Cardiovascular, rheumatoid arthritis, multiple sclerosis, osteoporosis

(Updated May 31, 2016) <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/vitamin-d>



**MCHUMOR.com** by T. McCracken



“It appears to be a side effect of the herbal tea you're drinking.”

© T. McCracken mchumor.com

# Potential Adverse Effects: NHPs

<p><b>Hormonal effects</b></p>	<p>Estrogenic: Black cohosh, flaxseed, ginseng, milk thistle, red clover</p> <p>Androgenic: DHEA</p>
<p><b>Lower platelets or prolong clotting time</b></p>	<ul style="list-style-type: none"> <li>• Alfalfa</li> <li>• Chamomile</li> <li>• Garlic</li> <li>• Red clover</li> </ul> 
<p><b>Liver injury and interfere with:</b></p> <ul style="list-style-type: none"> <li>• detoxification,</li> <li>• digestion and</li> <li>• break-down of drugs</li> </ul>	<ul style="list-style-type: none"> <li>• Kava</li> <li>• Mistletoe (Iscador©)</li> <li>• Skullcap</li> </ul>
<p><b>Impact cytochrome P450 and drug metabolism</b></p> <ul style="list-style-type: none"> <li>• competing</li> <li>• speeding up</li> <li>• slowing down</li> </ul>	<ul style="list-style-type: none"> <li>• St. John's Wort</li> <li>• Grapefruit</li> <li>• Milk Thistle</li> <li>• Panax Ginseng</li> <li>• Ginkgo Biloba</li> </ul> 

# EMERGING NHP THERAPIES –

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# Ginger



- Antiemetic, antiplatelet, anti-inflammatory, antitumor effects

## What does the evidence tell us?

- Chemo-induced nausea and vomiting:
  - 2/3 of Phase II/III RCTs showed positive effect of ginger plus 5-HT<sub>3</sub> receptor antagonist anti-emetics (Hickok et al., 2007; Marx et al., 2013; Ryan et al., 2009; Zick et al., 2009 )
- Beginning evidence demonstrating anti-tumor effects of ginger in lung, colorectal, breast, pancreas, ovarian (Kim et al., 2009, Pan et al., 2008; Rhode, 2007; Sung et al., 2008)
- Side effects: increase bleeding risk, reduce blood glucose

(Updated May 31, 2016) <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/ginger>

# Pomegranate



- Active ingredients polyphenols; antioxidant and anti-inflammatory
- Possible chemopreventive effects in prostate cancer patients

## What does the evidence tell us?

- Animal studies: inhibition of tumor growth & accelerated cell death (Albrecht et al., 2004; Malik et al., 2005)
- Mean PSA doubling time significantly increased (Paller et al., 2014; Pantuck et al., 2008)
- In-vitro inhibition of aromatase activity, limits breast cancer cell proliferation (Kim et al., 2002)
- No effect on postmenopausal hot flashes
- Exploring role in alleviating cisplatin-induced hepatotoxicity (Yildirim et al., 2013)

(Updated May 31, 2016) <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/pomegranate>

# Turmeric (Curcumin)



- A tropical plant that is part of the ginger family.
- Anti-inflammatory, antioxidant, enhances apoptosis, cytokine release, anti-angiogenesis, anti-platelet
- Interferes with cytochrome P450 and other drug metabolism mechanisms

## What does the evidence tell us?

- > 85 in-vitro and animal studies. Anti-proliferative effects in variety of cancers (uterine, ovarian, lung, colorectal, neuroblastoma, pancreatic, breast, sarcoma)
- Potentiates in-vitro anti-tumour effect of some chemo and radiation treatment in pancreas, colorectal, prostate, ovarian and cervical cancer (Bayet-Robert et al., 2010; Kunnynajjara et al. 2007, 2008; Qiao et al., 2012; Selvendiran et al., 2010; Sreekanth, et al., 2011; Tharakan et al., 2010)
- May inhibit cyclophosphamide & doxorubicin effect in breast cancer (Somasundaram, 2003)

(updated May 31, 2016)

<https://www.mskcc.org/cancer-care/integrative-medicine/herbs/turmeric>

# Turmeric (Curcumin)



## What does the evidence tell us, con't?

- Small RCT showed efficacy and safety of turmeric for cachexia pre-treatment for colorectal cancer (He et al., 2011)
- Topical turmeric-based cream effective for radiation based dermatitis (Palatty et al., 2014)

## **Cautions:**

- Increased bleeding risk
- Affects metabolism of concurrent drugs through a variety of mechanisms
- Can cause allergic dermatitis, gall stones, kidney stones

(updated May 31, 2016) <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/turmeric>





# Coriolus Versicolor

- Also known as “cloud mushroom” or “turkey tail”
- Thought to be biologic response modifier
- Polysaccharides (PSK, PSP) stimulate immune function
- Is offered in Japan as a drug therapy in the form of PSK (“Krestin”)
- Used in TCM

## What does the evidence tell us?

- Higher survival rates in gastric and colorectal cancer after PSK (Nakazato, 1994; Torisu et al., 1990)
- In vitro effects on leukemia and lymphoma cell death (Lau et al., 2004; Hirahara et al., 2012)
- Systematic review of PSK in lung cancer - may improve immune function, reduce tumor-associated symptoms, and extend survival (Fritz et al., 2015)
- No demonstrated effect in breast cancer
- **Side Effects:** Few – darkening of fingernails and stools

Updated May 31, 2016; <http://www.ncbi.nlm.nih.gov/pubmed/?term=coriolus+versicolor+cancer>  
<https://www.mskcc.org/cancer-care/integrative-medicine/herbs/coriolus-versicolor>

# Cannabis



- Numerous active components - cannabinoids, with THC most widely recognized
- Potential benefits re: pain, appetite, nausea/vomiting & seizures

## What does the evidence tell us (re: antineoplastic)?

- In vivo & in vitro/pre clinical studies – antitumor effects in glioma, hepatocellular, prostate, lung, cholangiocarcinoma, breast, melanoma (McAllister et al., 2006; Velasco et al., 2012; Rocha et al., 2014; Pourkhalili et al., 2013; De Petrocellis et al., 2013; Ramer et al., 2012; Leelawat et al., 2010; Qamri et al., 2009; Blazquez et al., 2009; Armstrong et al., 2015)
- Small Phase 1 study demonstrated safety of THC injected into recurrent GBM in 9 patients (Guzman et al., 2006)
- Combined treatment of THC with temozolomide resulted in cell death in mice models with gliomas (Torres et al., 2011).

Slide adapted from Dr. Lynda Balneaves (updated May 31, 2016)

<http://www.ncbi.nlm.nih.gov/books/NBK65755/>

# Cannabis, con't



- **Side Effects:** Psychoactive response, dry mouth, decreased psychomotor coordination, impairment of short term memory and concentration
- **Cautions:**
  - Impact on mental health and brain development in children < 25
  - Smoking = large airway injury
  - THC may promote cell growth in cancers without cannabinoid receptors (e.g., breast)
  - low dose cannabinoid was found in one study to lead to cancer cell proliferation.....

Adapted from Dr. Lynda Balneaves (updated May 31, 2016)

<http://www.ncbi.nlm.nih.gov/books/NBK65755/>

# Synthesis of Evidence: Cancer Prevention

World Cancer Research Fund & American Institute for Cancer Research (WCRF & AICR) (2007).

**Synthesis of Food, Nutrition, & Physical Activity Research in the Prevention of Cancer.**

[www.dietandcancerreport.org/](http://www.dietandcancerreport.org/)

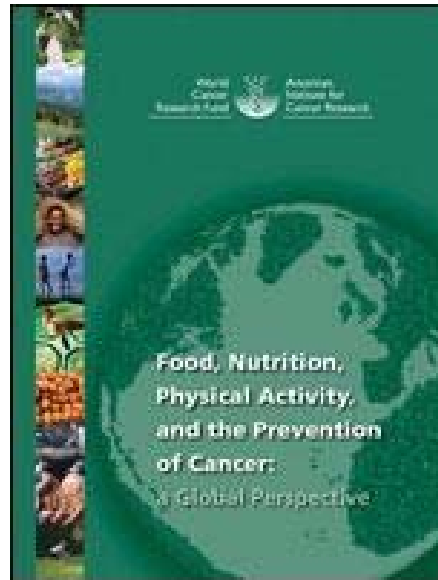


# Food, nutrition, physical activity and the prevention of cancer: Global perspectives (AICR/WCRF 2007)



- Be physically active for at least 30 minutes every day.
- Be as lean as possible without becoming underweight.
- Eat a variety of vegetables, fruits, whole grains, and legumes.
- Avoid sugary drinks. Limit consumption of energy dense foods
- Limit consumption of red meats and avoid processed meats.
- limit alcoholic drinks to 2 for men and 1 for women a day.
- Limit consumption of salty and mouldy foods.
- **Aim to meet nutritional needs through diet alone**
- **After treatment, survivors should follow the diet, healthy weight and physical activity recommendations for cancer prevention.**

# ***“Run from salad bar to salad bar”***



American Institute for Cancer Research (2007).  
*Food, nutrition, physical activity and the prevention  
of cancer: Global perspectives.* [www.aicr.org](http://www.aicr.org)

[www.dietandcancerreport.org](http://www.dietandcancerreport.org)

# CAM DECISION MAKING AND CANCER SURVIVORSHIP





# Why don't we talk about CAM with patients and families?



*“You’ve been fooling around with complementary medicine again, haven’t you?”*

# Barriers to Communication

- Lack of HCP CAM education and decision support skills
- Lack of time
- The culture of cancer care
- Attitudes towards CAM
- Specialization
- Uncertainty re: scope of practice



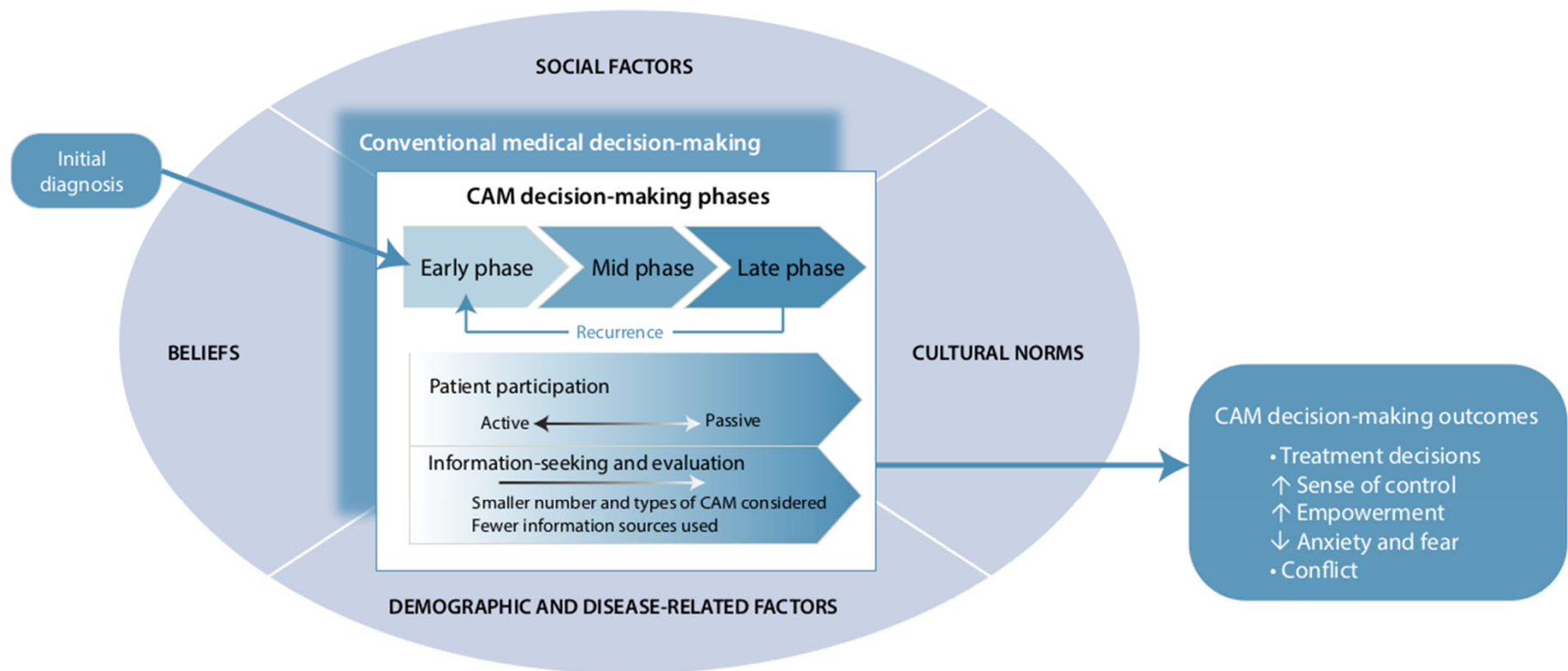
Davis et al., 2012; Frenkel et al., 2010; Rojas-Cooley & Grant, 2009; Schofield et al., 2010; Tovey & Broom, 2007

# Guiding Principles

- survivor's right to make informed choices
- do no harm
- evidence-informed



# CAM and Cancer Decision Making



Weeks et al., (2014). <http://www.openmedicine.ca/article/view/625/546>

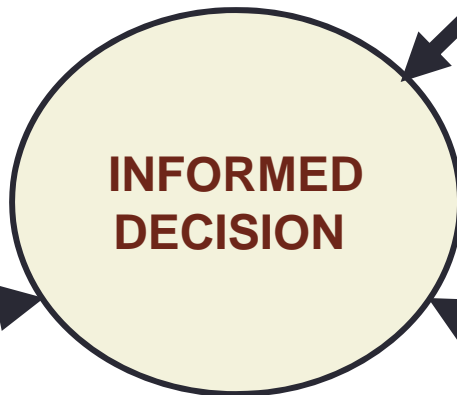
# Shared Decision-Making (SDM)

**An integrative process between patient and clinician that:**

- Engages the patient in decision-making
- Provides patient with information about treatment options
- **Facilitates the incorporation of patient preferences and values into the plan of care**

# What does a “good” decision look like?

**Good Decision = Informed Decision**



# CAM & the Health Professionals' Role

- **Open the dialogue**
- Understand the survivor's:
  - Goals, beliefs and values related to CAM use
  - Preferences for decision-making roles (self and others)
- Assess foundational lifestyle practices & knowledge
  - Diet, exercise, weight maintenance, sun safety, smoking cessation, sleep
- Help locate and communicate evidence-informed CAM information in an unbiased and non-judgmental fashion

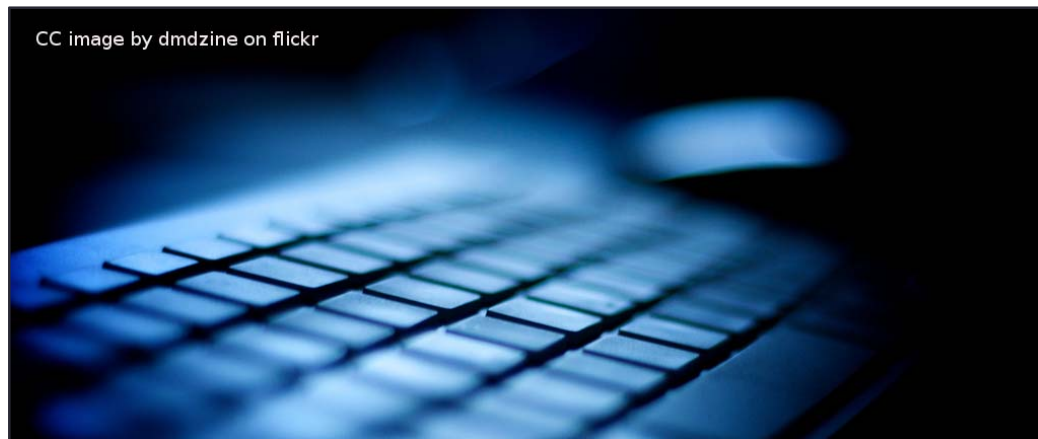


# CAM & the Health Professionals' Role

- Help select a quality CAM therapy that may address the survivor's goals
- Help select CAM provider
  - Credentialing; licensure; education
- Help devise a monitoring plan
  - efficacy (does it work?)
  - toxicity (does it hurt?)
  - Is it meeting the patient's objectives?
  - Who else needs to be involved?

# CAM RESOURCES FOR PATIENTS AND HEALTH CARE PROVIDERS

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# CAMEO Website

[www.cameoprogram.org](http://www.cameoprogram.org)

**CAMEO**

Complementary Medicine Education & Outcomes Program



BC Cancer Agency  
CARE + RESEARCH

Login or Register

Participate in Research

Patient & Health Care Provider Resources

Useful Links

Send an e-vite

About CAMEO

Contact



Patient and health care provider resources

Transforming CAM research into easy-to-use information

**Patient & Health Care Provider Resources**

Access useful tools, recommend links, etc.



**Participate in research**

Education, decision aids, clinical trials



**Useful links**

Evidence-based websites for CAM information



**Send an e-vite**



On this website

Why CAMEO?

# Credible CAM Websites

- **Memorial Sloan Kettering Cancer Centre Herbs and Botanicals Database**

- Cancer specific CAM therapy monographs
- App available



- **Natural Medicines**

- Natural health product & dietary supplement monographs

- **CAM on Pubmed**

- Newly published articles about all CAM therapies
- App available

[www.cameoprogram.org](http://www.cameoprogram.org)

# Other CAM Websites

- **Natural and Non-Prescription Health Product Directorate (NNHPD)**
  - Database of NHPs assessed by Health Canada
  - Identify advisories of unsafe products
  - Report adverse events (MedEffect)
- **National Center for Complementary and Integrative Health (NCCIH - formerly NCCAM)**
  - Ask/Tell Program
  - Educational resources
- **ClinicalTrials.gov**
  - Search for CAM clinical trials

# CAMEO Website

CAMEO Research Program x

cameoprogram.org

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Complementary Medicine Education & Outcomes Program

UBC BC Cancer Agency  
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Access useful tools, recommend links, etc.

**Participate in research**  
Education, decision aids, clinical trials

**Useful links**  
Evidence-based websites for CAM information

**Send an e-vite**

**Why CAMEO?**

Online Patient and HCP education modules  
CAM & Cancer in Canada Booklet  
CCS Complementary Therapies Booklet  
CAM diary  
SCOPED tool  
NHP and breast cancer monographs  
Natural health product decision aid – soon!  
CAM Best Practice Guideline – soon!  
Healthy Living Resources



Complementary Medicine Education and Outcomes  
(CAMEO) Research Program

## CAM & Cancer in Canada

An evidence-informed resource  
for patients, support persons,  
and health care providers



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# Other Resources

- Library and Cancer Information Centers
- Oncology nutrition services
  - Dial-a-dietitian 811
- Drug information specialist 1-800-663-3333, 6275
  - Drug- NHP interactions
- Patient & Family Counseling
  - Be Active
  - Support groups
  - Relaxation
  - Mindfulness Meditation Program
  - Art therapy (children)



# DECISION COACHING

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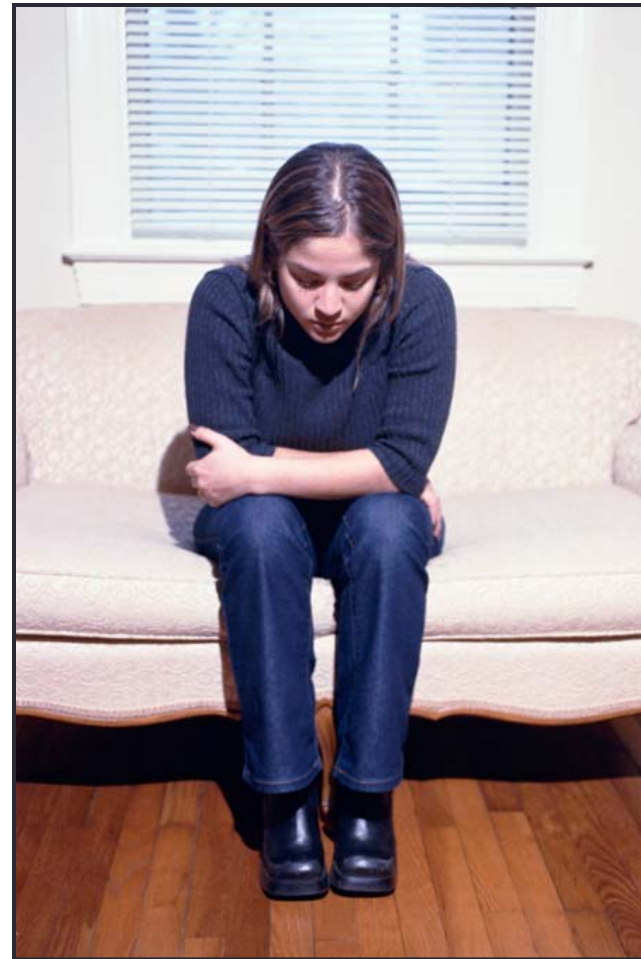


# SCOPED Framework

- **S**ituation
- **C**hoices
- **O**bjectives
- **P**eople
- **E**valuation
- **D**ecision

# SCOPED: An Example

- Kathryn Bright



## SCOPED: Situation

Kathryn is a 40 year old woman who completed treatment 2 months ago for stage III breast cancer. She underwent a mastectomy with node dissection (3 positive nodes), completed 6 cycles of fluorouracil, epirubicin & cyclophosphamide (FEC), and has begun to take Tamoxifen. In the past month, she has experienced hot flashes, severe fatigue, and is having difficulty caring for her 12 year old son and keeping up with her part-time work at a local art studio. She shares: “I’m so tired all the time I just don’t want to get out of bed. I don’t want to do anything...and these hot flashes are unbearable...”

## SCOPED: Situation

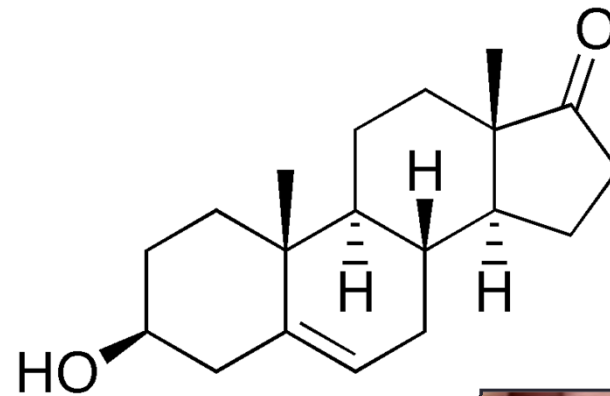
Her partner, David Liu, has been spending a lot of time looking up information on the internet and has identified 2 CAM therapies that he thinks may help Kathryn with her fatigue and hot flashes: acupuncture and DHEA. From what he's read online in cancer chat rooms, these therapies seem to have helped other women and "*seem a no-brainer*" as they are less toxic than drugs such as Tamoxifen. His past use of acupuncture has also convinced him of the possible benefits of this therapy. David has brought in a large stack of web pages about these therapies and wants to talk to you about them.

### Questions:

- Will acupuncture and DHEA help Kathryn's fatigue and hot flashes?
- Is it safe to use DHEA concurrently with tamoxifen?

# SCOPED: Choices

- Acupuncture
- DHEA



# SCOPED: Objectives

- Minimize fatigue
- Minimize hot flashes
- Safe use of DHEA during Tamoxifen





# SCOPED: People

- Husband
- Others?



# SCOPED: Evaluation

## Acupuncture

- Regulates the flow of 'qi' (vital energy)
- Needle, heat, or pressure stimulation on certain points on the body
- Causes nerve cells to release neurotransmitters, affects the pituitary gland, and changes function in parts of the brain
- Influences blood pressure, immune system, and endorphin release
- Use cautiously in neutropenic and thrombocytopenic patients



## State of Science

### Recommended:

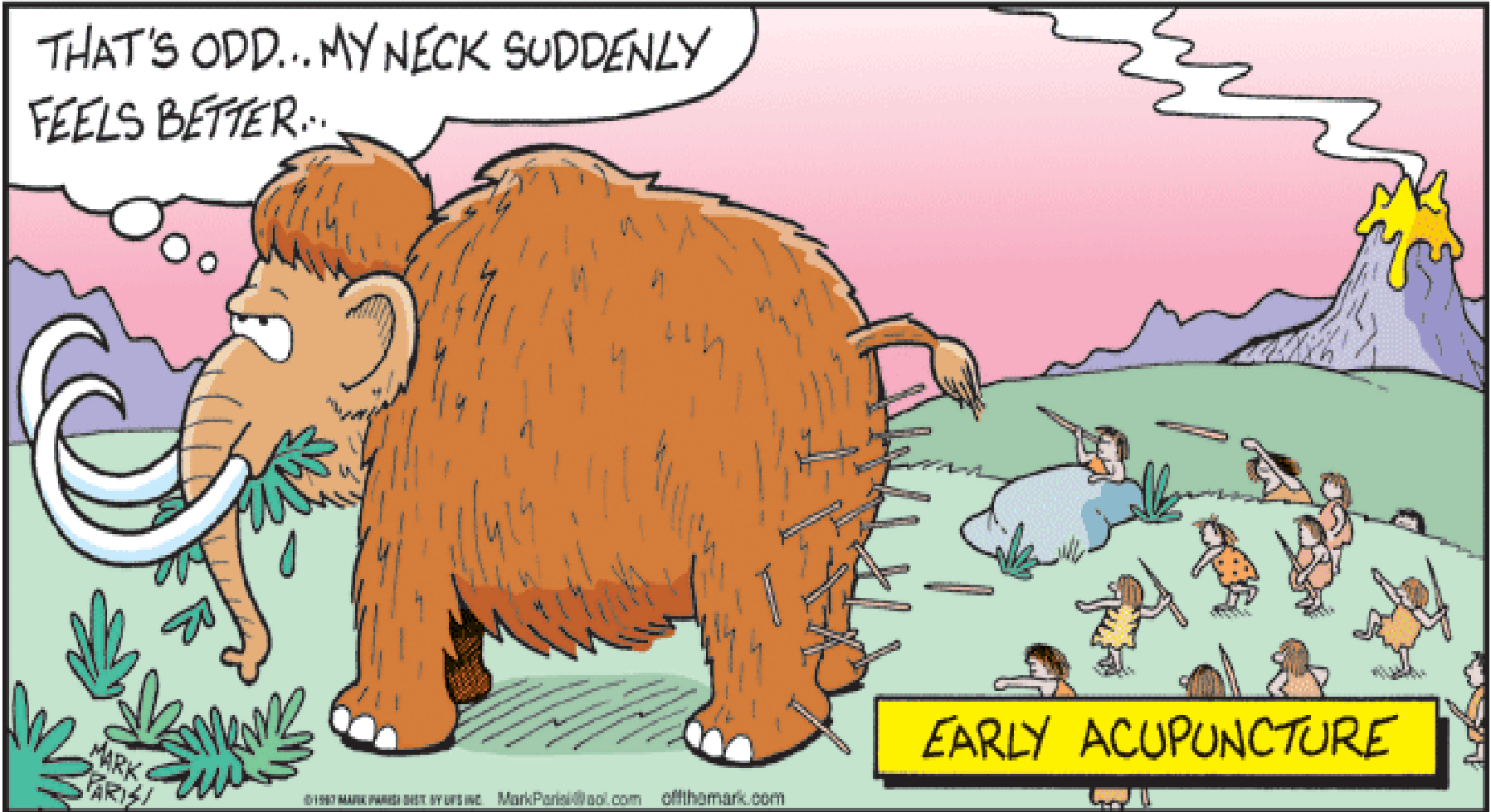
- Poorly controlled pain, nausea and vomiting with chemo or surgery
- Acupressure wristbands on day of chemo for nausea & vomiting
- For hot flashes not amenable to pharmacologic treatment.
- Radiation-induced dry mouth

**Caution:** More clinical studies needed to confirm benefit in:

- Shortness of breath, fatigue, neuropathy.

(Updated May 31, 2016) <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/acupuncture>

THAT'S ODD... MY NECK SUDDENLY FEELS BETTER...



EARLY ACUPUNCTURE

MARK PERISI

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# SCOPED: Evaluation – DHEA (*dehydroepiandrosterone*)



- Hormone secreted by the adrenal gland and converted into testosterone and estrogen in body
- DHEA extracted from a wild yam plant is available as a dietary supplement
- Alters activity of cytochrome P-450 enzyme: **alters drug metabolism**
- Side Effects: Acne, increased facial hair, alopecia, alters blood sugar regulation.

## State of the Science

- One case study showing cancer progression in man with advanced prostate cancer
- In premenopausal women, may increase the risk of breast, uterine and ovarian cancer
- Enhances Tamoxifen resistance and disease progression in breast cancer

(Updated May 31, 2016) <https://www.mskcc.org/cancer-care/integrative-medicine/herbs/dehydroepiandrosterone>

# SCOPED: Evaluation Tips

## Weighing the Pros and Cons

- Need to consider:
  - Survivor's overall objective?
  - The potential benefits vs. risks
  - What is unknown about a therapy
- Impact on quality of life, relationships, and overall health
- Ability to commit to a therapy or practice
  - Time, cost, energy, etc.



# SCOPED: Evaluation

Kathryn	Acupuncture	DHEA
Minimize fatigue	✓ ?	?
Minimize hot flashes	✓	?
Safety	✓	x

# SCOPED: Decisions



To minimize fatigue	Acupuncture
To minimize hot flashes	Acupuncture
Safe CAM use	Acupuncture

*Will discuss other options to safely manage hot flashes and fatigue with oncology nurse, doctor, pharmacist and dietitian*



Will refrain from DHEA



# SCOPED:

## Monitoring & Evaluating the Decision

- Effectiveness – is the therapy “working”?
  - Consider survivor’s goals
  - Indicators?
- Expected and unexpected side effects
  - Safety indicators?
  - Adverse reaction reporting:
    - Natural Health Product Directorate (NHPD)
    - <http://www.hc-sc.gc.ca/dhp-mps/medeff/report-declaration/index-eng.php>
- How long and often should the CAM be evaluated?
- Caution about using too many new CAM at one time



# Robin's Story



# Robin's Story

*Be careful about reading health books.*

*You may die of a misprint.*

~ Mark Twain ~

# Robin's Story

*Life is measured by the number of breaths we  
take, but by the moments that take our breath  
away.*

~ Maya Angelou ~

# Robin's Story

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[www.abreastinaboat.com](http://www.abreastinaboat.com)



# Robin's Story

You miss 100% of the shots  
you never take.

~ Wayne Gretsky ~



# Robin's Story



# Summary

- Up to two-thirds of survivors use CAM after primary treatment
- Among survivors, the highest CAM users have unmet needs, are younger, female, higher SES, previous chemotherapy use, breast cancer
- NHPs are the top CAM therapies used by survivors
- Gaps exist in supporting survivors to safely use CAM
- A growing body of evidence is available to offer support for evidence-informed CAM use
- Health care providers do have a role in helping survivors and their families make safe and informed CAM decisions
- Resources exist to support survivors, families, and health care providers in making safe and informed CAM decisions

# Looking to the Future

## Practice

- Models of care
  - promote HEALTH
  - assess for CAM use and provide decision support throughout cancer trajectory
- Integrate CAM clinical practice guidelines; decision aids; clinical tools
- Provide/referral to evidence-based CAM therapies
- Access to CAM expertise – telephone, on-line

## Education

- Survivors/families - “CAM basics”
- HCPs – Undergraduate education includes CAM
- Policy makers – patient and economic outcomes; satisfaction with care

## Research

- Evaluate PROMs/PREMs, economic and system impacts with CAM integration



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  - CIHR Psychosocial Oncology Research Training (PORT) Fellowship
  - Canadian Nurses Foundation TD Meloche Monnex Scholarship



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PROGRAMME EN ONCOLOGIE PSYCHOSOCIALE  
POUR LA RECHERCHE TRANSDISCIPLINAIRE



Canadian  
Nurses Foundation

Lotte & John Hecht  
Memorial Foundation

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# Robin's Story –

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# Thank You!



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