

# Acupuncture:

## Managing Symptoms and Side Effects of Cancer Treatment

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No conflict of interest to disclose

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## Outline

1. What is Acupuncture?
2. Acupuncture for the Cancer Patient
3. Integrative Oncology- a model to improve patient outcomes
4. Insurance coverage
5. Time for questions

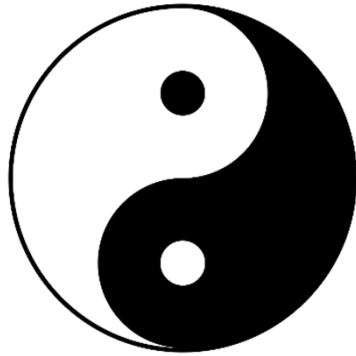
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# What is Acupuncture?

Two Viewpoints to Consider

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## Traditional and Modern



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"Yin yang": Wikimedia Commons, accessed 2/2019,  
[https://upload.wikimedia.org/wikipedia/commons/thumb/1/17/Yin\\_yang.svg/1024px-Yin\\_yang.svg.png](https://upload.wikimedia.org/wikipedia/commons/thumb/1/17/Yin_yang.svg/1024px-Yin_yang.svg.png)  
 Brain image: Creative Commons, accessed 2/2019,  
<https://noba.to/images/shared/images/000/002/437/original.jpg>

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## Physiologic response to Acupuncture

### Local Response

- Via Noxious Inhibitory Stimuli affecting Polymodal Receptors (i.e afferent nociceptors, mechanoreceptors)
- Immediate inhibition of pain at dorsal horn via neurotransmitters, Substance P
- Evoking Flare and Wheal response increases local circulation

### CNS response

- Endogenous opioid neurotransmitters Enkephalin, Beta-endorphin, Endomorphin
- Found in Brain and CSF following treatment
- Induction time of 15-20 minutes
- Antagonized by Nalaxone

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Kawakita, Kenji and Kaoru Okada. "Acupuncture therapy: mechanism of action, efficacy, and safety: a potential intervention for psychogenic disorders?" *BioPsychoSocial medicine* vol. 8,1 4. 20 Jan. 2014, doi:10.1186/1751-0759-8-4

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## Traditional East Asian Medicine



- Health as balance of Yin and Yang, relative excess and deficiency
- Corresponding Organ and Bowel as system of disease, e.g Spleen and Stomach
- Syndrome- functional diagnosis
- Channel or "Vessel" as a pathway with points or "holes"

"Stomach Channel of Leg Yang Ming": Wikimedia Commons, accessed 2/19  
<https://upload.wikimedia.org/wikipedia/commons/d/d2/ChineseMedicine.JPG>

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## Acupuncture adjusts Qi and Blood

氣

Qi, "chee" describes body function.

Warmth, protection, transformation, transportation, containment

"Ki": Wikimedia Commons, accessed 2/2019,  
[https://upload.wikimedia.org/wikipedia/commons/thumb/0/0a/Ki\\_obsolete.svg/1200px-Ki\\_obsolete.svg.png](https://upload.wikimedia.org/wikipedia/commons/thumb/0/0a/Ki_obsolete.svg/1200px-Ki_obsolete.svg.png)

"Xue": Wikimedia Commons, accessed 2/2019,  
<https://upload.wikimedia.org/wikipedia/commons/6/66/%E8%A1%80-order.gif>

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血

Blood, "xue" describes nourishment.

Substance, tissues, fluids

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## Low Risk Intervention

- Acupuncture is generally a low-risk intervention.
- Known side effects listed from more common to very rare:
  - - Bleeding or Hematoma due to small vessel injury- 1 to 10 events in 100 treatments
  - - Pain at insertion site, Inflammation, Nerve injury- 1 to 10 events in 1,000 treatments
  - - Local Infection, Fluctuation in Blood Pressure, Syncope- 1 to 10 in 10,000 treatments
  - - Broken needles, Pneumothorax- <1 in 10,000 treatments
- **Some risks are needing site specific. Adherence to Clean Needle Technique.**

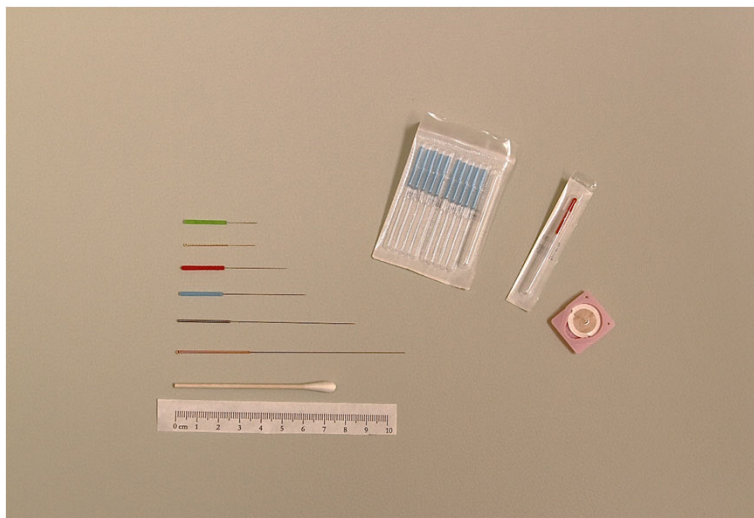


Witt C, M, Pach D, Brinkhaus B, Wruck K, Tag B, Mank S, Willich S, N: Safety of Acupuncture: Results of a Prospective Observational Study with 229,230 Patients and Introduction of a Medical Information and Consent Form. Forsch Komplementmed 2009;16:91-97. doi: 10.1159/000209315, See Figure 2.

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## Acupuncture Needles



Peterson, Matthew. "Acupuncture Needles." 2019. JPEG file.

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# Acupuncture for the Cancer Patient

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## Continuum of Care



Diagnosis

During  
Treatment

After  
Treatment

Palliative

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## Common Symptoms Treated

- Acute and Chronic pain
- Cancer related pain
- Post surgical pain
- Neuropathy
- Fatigue
- Dry mouth (Xerostomia)
- GI dysregulation
- Chemotherapy side effects, nausea/vomiting
- Hot flashes
- Arthralgia and Myalgia secondary to endocrine therapy
- Sleep disruption
- Stress, anxiety, and depression

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## Additional Research Resources

### ***Acupuncture for Symptom Management in Cancer Care: An Update***

- Garcia, M. Kay, et al. **“Acupuncture for Symptom Management in Cancer Care: an Update.”** *Current Oncology Report* (2014) 16:418. DOI:10.1007/s11912-014-0418-9

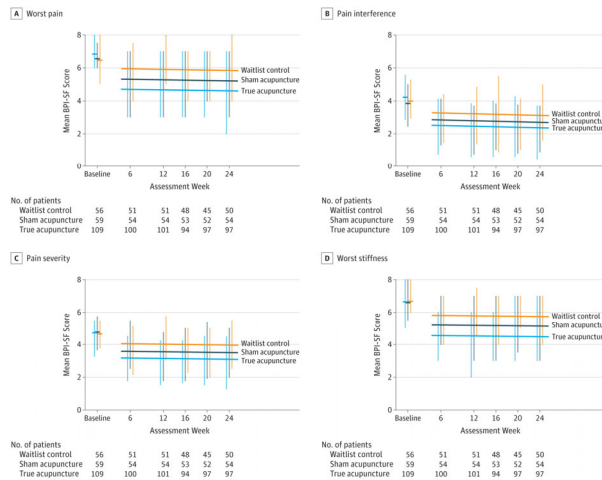
### ***The Value of Acupuncture in Cancer Care***

- Lu, Weidong, et al. **“The Value of Acupuncture in Cancer Care.”** *Hematology/oncology clinics of North America*. (2008) 22. 631-48, viii. DOI:10.1016/j.hoc.2008.04.005.

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From: **Effect of Acupuncture vs Sham Acupuncture or Waitlist Control on Joint Pain Related to Aromatase Inhibitors Among Women With Early-Stage Breast Cancer: A Randomized Clinical Trial**

JAMA. 2018;320(2):167-176. doi:10.1001/jama.2018.8907



**Linear Mixed-Model Results Through 24 Weeks for Selected Brief Pain Inventory-Short Form End Points**

Horizontal bars at baseline indicate the observed baseline means. Vertical bars indicate the interquartile range (IQR) for each study group at each assessment time and are offset by a small margin to show the IQR for each group. Fitted regression lines for each group are also shown, with P values for the effect of intervention on Brief Pain Inventory-Short Form outcomes derived from multivariable linear mixed-model analyses with a random effect for patient, adjusting for continuous time, the baseline score, and indicator variables for study sites, and report values for comparisons between true acupuncture vs sham acupuncture and true acupuncture vs waitlist control for week 6, 12, 16, 20, and 24 assessment times.

A, P = .04 (vs sham acupuncture); P < .001 (vs waitlist control).

B, P = .18 (vs sham acupuncture); P = .003 (vs waitlist control).

C, P = .08 (vs sham acupuncture); P = .003 (vs waitlist control).

D, P = .02 (vs sham acupuncture); P < .001 (vs waitlist control).

Date of download: 10/3/2022

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**From: Effect of Acupuncture vs Sham Acupuncture or Waitlist Control on Joint Pain Related to Aromatase Inhibitors Among Women With Early-Stage Breast Cancer: A Randomized Clinical Trial**

## Findings

- Multicenter randomized clinical trial of 226 women with early-stage breast cancer,
- Patients in the acupuncture group, compared with those in the sham acupuncture group or the waitlist control group, had **significant reductions** in changes in joint pain scores from baseline to 6 weeks (between-group difference vs sham acupuncture, 0.92 points and 0.96 points vs the waitlist control group [0- to 10-point scale])
- Post hoc analysis suggested that the proportion of patients with a 2-point improvement at 6 weeks in the true acupuncture group (58%) was greater than that in the sham acupuncture group (33%) and in the waitlist control group (31%)
- Compared with waitlist control, **additional maintenance true acupuncture** was associated with significant improvements in worst pain, average pain, pain interference, pain severity and worst stiffness at 12 weeks.

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Integrative Medicine for Pain Management in Oncology: SIO-ASCO Guideline				
Category	Recommendation	Type of Evidence	Evidence Quality	Strength of Rec.
Aromatase Inhibitor-Related Joint Pain	1.1. Acupuncture should be offered to patients experiencing aromatase inhibitor-related joint pain in breast cancer.	EB	I	M
	1.2. Yoga may be offered to patients experiencing aromatase inhibitor-related joint pain in breast cancer.	EB	L	W
General Cancer Pain or Musculoskeletal Pain	1.3. Acupuncture may be offered to patients experiencing general pain or musculoskeletal pain from cancer.	EB	I	M
	1.4. Reflexology or acupressure may be offered to patients experiencing pain during systemic therapy for cancer treatment.	EB	I	M
	1.5. Massage may be offered to patients experiencing chronic pain following breast cancer treatment.	EB	L	M
	1.6. Hatha yoga may be offered to patients experiencing pain after treatment for breast or head and neck cancers.	EB	L	W
	1.7. Guided imagery with progressive muscle relaxation may be offered to patients experiencing general pain from cancer treatment.	EB	L	W
Chemotherapy-Induced Peripheral Neuropathy	1.8. Acupuncture may be offered to patients experiencing chemotherapy-induced peripheral neuropathy from cancer treatment.	EB - IC	L	W
	1.9. Reflexology or acupressure may be offered to patients experiencing chemotherapy-induced peripheral neuropathy from cancer treatment.	EB	L	W
Procedural or Surgical Pain	1.10. Hypnosis may be offered to patients experiencing procedural pain in cancer treatment or diagnostic workups.	EB	I	M
	1.11. Acupuncture or acupressure may be offered to patients undergoing cancer surgery or other cancer-related procedures such as bone marrow biopsy.	EB - IC	L	W
	1.12. Music therapy may be offered to patients experiencing surgical pain from cancer surgery.	EB	L	W
Pain During Palliative Care	1.13. Massage may be offered to patients experiencing pain during palliative and hospice care.	EB	I	M

Notes. Definitions for the quality of the evidence and strength of recommendation ratings are available in the guideline publication; accessible via [www.asco.org/survivorship-guidelines](https://www.asco.org/survivorship-guidelines).

Abbreviations. EB, evidence based; IC, informal consensus; I, intermediate; L, low; M, moderate; Rec., recommendation; W, weak

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## Patient Case Example

- **“Mary” Invasive Ductal Carcinoma of Right Breast, ER/PR +, HER-2 -, positive lymph node biopsy**
  - s/p 12 weeks paclitaxel chemotherapy and 4 cycles ddAC Q14 days, bilateral mastectomy with reconstruction, radiation.
    - Taking Aromatase Inhibitor, initially letrozole for 6 months, washout period due to worsening arthralgias, change to anastrozole.
    - Continues to feel fatigue, hot flashes related to AI, managed arm lymphedema, Right shoulder and chest wall stiffness post surgery and radiation.
      - Patient still struggles with anxiety and some depression relating to her “new normal” now in survivorship. Interested in prevention and QOL!

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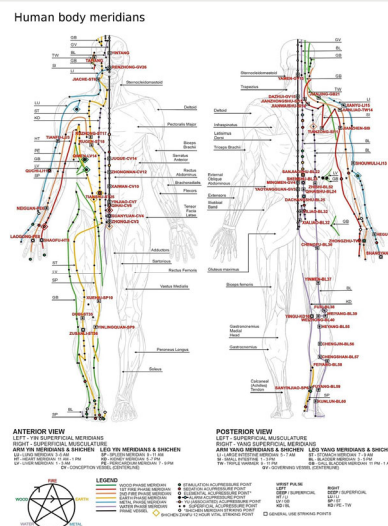
## Acupuncture Intervention Time

- Patient in another phase of treatment, experiencing difficult side effects from long term therapy.
- AI arthralgia may improve with Acupuncture.
- Multiple symptoms which could benefit from Acupuncture, focus on QOL
  - Hot flashes related to endocrine therapy, post surgery and radiation related shoulder and chest wall stiffness and dysfunction.
- Patient interested in maintaining treatment regimen, optimizing health, and looking to future.

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## Acupuncture Treatment

- Weekly treatment to start, gradually increase time between visits to assess durability
- Tracking multiple symptoms
- Helping patient get acquainted with “new normal”
- Common points treated:
  - Li4, Liv3, Li11, Kid6, adjacent to painful joints “Ashi points”, Auricular Acupuncture- Shenmen, Point 0, Thalamus, Endocrine
  - Discuss breathing and meditation techniques for anxiety



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## Acupuncture Outcomes

- Reductions in joint pain, easier to continue with AI therapy, less impact on her daily activity.
- Decreased hot flash frequency and intensity, better sleep!
- Improved ROM in affected shoulder.
- Strategies to manage Anxiety.
- Referrals to supportive services to address QOL and disease prevention, i.e. Integrative and Functional Medicine, Dietician, Physical Therapist, other Community Resources.

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## Continuum of Care



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# Integrative Oncology

A model to improve patient outcomes

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## Integrative Oncology


### *Components of Integrative Medicine*

- Focus on Whole Person Care: Mind, Body, Spirit, and Community.
- Team based, finding the best options for a patient at that point in time.
- Fosters provider to provider and provider to patient communication and planning.
- Patients feel supported throughout the process. Reducing fragmentation in healthcare.

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## Whole Person Care

Whole Person Care is an approach that recognizes all factors impacting health are connected—mind, body, spirit and community.


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## Other Approaches and Terminology

<p><b>Complementary:</b></p> <ul style="list-style-type: none"> <li>• <b>Free?</b></li> <li>• <b><i>An older term for supportive therapies, Acupuncture included</i></b></li> <li>• Art and Music Therapies</li> <li>• Community Organizations               <ul style="list-style-type: none"> <li>• Gilda's Club and Pathways Health Crisis Resource Center</li> </ul> </li> <li>• Volunteer Services</li> <li>• Support Groups</li> </ul>	<p><b>Alternative:</b></p> <ul style="list-style-type: none"> <li>• Negative connotation</li> <li>• Care outside of accepted norms</li> <li>• Lack of regulation (real or perceived)</li> <li>• Often “claims” based</li> <li>• Conspiracy</li> </ul>
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# Insurance Coverage

Here in Minnesota

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## Commercial Plans

- Many plans offer coverage of Acupuncture:
- Blue Cross Blue Shield, Health Partners, Medica, UCare, Preferred One, Aetna, United Healthcare
- Coverage is plan specific (conditions, # of visits, authorization)
- Limitations to coverage:
  - Chronic Pain- 3-6 month duration (depending on insurer)
  - Nausea- Caused by Chemotherapy, Pregnancy, Post-operative

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## Government Plans

### Medicare

#### Now Covered!

- Medicare guidelines cover Acupuncture for **Chronic Low Back Pain only**
  - Visit limits, coverage based on improvement
- May have coverage through a secondary commercial or govt. plan
  - Subject to similar guidelines (visit limits, conditions covered)

### Medicaid in Minnesota

- Acute Pain
- Chronic Pain
- Depression, Anxiety, Schizophrenia
- PTSD
- Insomnia
- Smoking Cessation
- Restless Leg
- Menstrual Disorders
- Xerostomia
- RT or Sjogren's
- Nausea and Vomiting
  - Cancer care
  - Pregnancy
  - Post-op

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## Looking Back...

- ❖ Acupuncture from 2 viewpoints. Stimulating the body's innate healing response.
- ❖ Caring for patient's along the continuum. Managing symptoms and improving quality of life.
- ❖ Thinking about the future of medicine. Building an Integrative model and mindset.
- ❖ Who pays for Acupuncture? Insurance may be an option.

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*Thank you for this  
opportunity.*

Any Questions?

Matthew Peterson, M.OM., Dipl. OM, L.Ac.